WOWZA®
MEDIA SYSTEMS

Wowza Media Server® 3

Server-Side API

Wowza Media Server 3: Server-Side API

Version 3.5.2

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Document History

Version	Description	Release date
Doc v3.5.0	Initial document release for Wowza Media Server 3.5	11-08-2012
Doc v3.5.1	Updated for Wowza Media Server 3.5.1	01-11-2013
Doc v3.5.2	Updated for Wowza Media Server 3.5.2	01-31-2013

Note

A more recent version of this document may be available online. See the Wowza Media Systems Documentation webpage (http://www.wowza.com/forums/content.php?188) for the latest updates.

Package

com.wowza.io

com.wowza.io
Interface IRandomAccessReader

public interface **IRandomAccessReader**
extends

Field Summary

public static final	FORWARD Value: **1**
public static final	REVERSE Value: **-1**

Method Summary

void	close() Close the media asset
boolean	exists() Does the media asset exist
String	getBasePath() Get the basePath for the random access reader
int	getDirecton() Get the current direction hint for the random access reader.
long	getFilePointer() Get the current byte location in the media asset
String	getMediaExtension() Get the media extension
String	getMediaName() Get the media name
String	getPath() Get the unique path to the media asset item
void	init(IApplicationInstance appInstance, IMediaStream stream, String basePath, String mediaName, String mediaExtension) Intialize RandomAccessReader
boolean	isOpen() Is the media asset open
long	lastModified() Return the lastModified date (same format as File.lastModified)
long	length() Get the media asset length in bytes

void	`open`() Open the media asset	
int	`read`(byte[] buf, int off, int size) Read bytes from the media asset	
void	`seek`(long pos) Seek to a position in the media asset	
void	`setDirecton`(int directon) Set the current direction hint	

Fields

FORWARD

```
public static final int FORWARD
```

Constant value: **1**

REVERSE

```
public static final int REVERSE
```

Constant value: **-1**

Methods

init

```
public void init(IApplicationInstance appInstance,
        IMediaStream stream,
        String basePath,
        String mediaName,
        String mediaExtension)
```

Intialize RandomAccessReader

Parameters:

`appInstance` - application instance

`stream` - parent stream if one exists

`basePath` - basePath for IApplicationInstance

`mediaName` - media name

`mediaExtension` - media extension from mediaReaders

open

```
public void open()
  throws java.io.IOException
```

Open the media asset

Throws:

`IOException`

close

```
public void close()
   throws java.io.IOException
```

Close the media asset

Throws:
IOException

isOpen

```
public boolean isOpen()
```

Is the media asset open

Returns:
true if media asset is open

getFilePointer

```
public long getFilePointer()
```

Get the current byte location in the media asset

Returns:
current byte location in the media asset

seek

```
public void seek(long pos)
```

Seek to a position in the media asset

Parameters:
pos - position to seek to

read

```
public int read(byte[] buf,
         int off,
         int size)
```

Read bytes from the media asset

Parameters:
buf - buffer to fill
off - offset in buffer
size - size of block to read

Returns:
number of bytes read, -1 if failure

getDirecton

```
public int getDirecton()
```

Get the current direction hint for the random access reader. The underlying system will call setDirection to hint at the current direction the media assets is being read.

Returns:
current direction hint for the random access reader

---

setDirecton

`public void` **`setDirecton`**`(int directon)`

Set the current direction hint

Parameters:
`directon` - current direction hint for the random access reader

---

getBasePath

`public String` **`getBasePath`**`()`

Get the basePath for the random access reader

Returns:
basePath for the random access reader

---

getMediaName

`public String` **`getMediaName`**`()`

Get the media name

Returns:
media name

---

getMediaExtension

`public String` **`getMediaExtension`**`()`

Get the media extension

Returns:
media extension

---

exists

`public boolean` **`exists`**`()`

Does the media asset exist

Returns:
true if media assets exists

---

lastModified

`public long` **`lastModified`**`()`

Return the lastModified date (same format as File.lastModified)

Returns:
lastModified date (same format as File.lastModified)

length

```
public long length()
```

Get the media asset length in bytes

Returns:
media asset length in bytes

getPath

```
public String getPath()
```

Get the unique path to the media asset item

Returns:
unique path to the media asset item

length

```
public long length()
```

Package
com.wowza.util

com.wowza.util
Class AMFUtils

```
java.lang.Object
    │
    +–com.wowza.util.AMFUtils
```

public class **AMFUtils**
extends Object

Utilities for the conversion between Java and AMF

Constructor Summary

public	AMFUtils()

Method Summary

static AMFData[]	convertParams(Object[] params) Converts an array of Java native data values and class to AMF data types.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

AMFUtils

public **AMFUtils**()

Methods

convertParams

public static AMFData[] **convertParams**(Object[] params)

Converts an array of Java native data values and class to AMF data types. It will box primitive data types into wrapper classes. Supported input data types are:

- null
- Double
- Float
- Long
- Integer
- Short
- Byte
- Number
- Date
- Boolean
- String
- StringBuffer
- byte[] - assumed to be raw AMFData
- ByteBuffer - assumed to be raw AMFData
- AMFData
- AMFDataMixedArray
- AMFDataArray
- AMFDataItem
- AMFDataList
- AMFDataObj

Parameters:
params - Array of Java

Returns:
Array of AMFData[] objects

com.wowza.util
Class Base64

```
java.lang.Object
    │
    +-com.wowza.util.Base64
```

public class **Base64**
extends Object

Encodes and decodes to and from Base64 notation.

Homepage: http://iharder.net/base64.

Change Log:

- v2.2.1 - Fixed bug using URL_SAFE and ORDERED encodings. Fixed bug when using very small files (~< 40 bytes).
- v2.2 - Added some helper methods for encoding/decoding directly from one file to the next. Also added a main() method to support command line encoding/decoding from one file to the next. Also added these Base64 dialects:
  1. The default is RFC3548 format.
  2. Calling Base64.setFormat(Base64.BASE64_FORMAT.URLSAFE_FORMAT) generates URL and file name friendly format as described in Section 4 of RFC3548. http://www.faqs.org/rfcs/rfc3548.html
  3. Calling Base64.setFormat(Base64.BASE64_FORMAT.ORDERED_FORMAT) generates URL and file name friendly format that preserves lexical ordering as described in http://www.faqs.org/qa/rfcc-1940.html
     Special thanks to Jim Kellerman at http://www.powerset.com/ for contributing the new Base64 dialects.
- v2.1 - Cleaned up javadoc comments and unused variables and methods. Added some convenience methods for reading and writing to and from files.
- v2.0.2 - Now specifies UTF-8 encoding in places where the code fails on systems with other encodings (like EBCDIC).
- v2.0.1 - Fixed an error when decoding a single byte, that is, when the encoded data was a single byte.
- v2.0 - I got rid of methods that used booleans to set options. Now everything is more consolidated and cleaner. The code now detects when data that's being decoded is gzip-compressed and will decompress it automatically. Generally things are cleaner. You'll probably have to change some method calls that you were making to support the new options format (ints that you "OR" together).
- v1.5.1 - Fixed bug when decompressing and decoding to a byte[] using decode(String s, boolean gzipCompressed). Added the ability to "suspend" encoding in the Output Stream so you can turn on and off the encoding if you need to embed base64 data in an otherwise "normal" stream (like an XML file).
- v1.5 - Output stream pases on flush() command but doesn't do anything itself. This helps when using GZIP streams. Added the ability to GZip-compress objects before encoding them.
- v1.4 - Added helper methods to read/write files.
- v1.3.6 - Fixed OutputStream.flush() so that 'position' is reset.
- v1.3.5 - Added flag to turn on and off line breaks. Fixed bug in input stream where last buffer being read, if not completely full, was not returned.
- v1.3.4 - Fixed when "improperly padded stream" error was thrown at the wrong time.
- v1.3.3 - Fixed I/O streams which were totally messed up.

I am placing this code in the Public Domain. Do with it as you will. This software comes with no guarantees or warranties but with plenty of well-wishing instead! Please visit http://iharder.net/base64 periodically to check for updates or to contribute improvements.

Nested Class Summary

class	**Base64.InputStream** Base64.InputStream
class	**Base64.OutputStream** Base64.OutputStream

Field Summary

public static final	**DECODE** Specify decoding. Value: **0**	
public static final	**DONT_BREAK_LINES** Don't break lines when encoding (violates strict Base64 specification) Value: **8**	
public static final	**ENCODE** Specify encoding. Value: **1**	
public static final	**GZIP** Specify that data should be gzip-compressed. Value: **2**	
public static final	**NO_OPTIONS** No options specified. Value: **0**	
public static final	**ORDERED** Encode using the special "ordered" dialect of Base64 described here: http://www.faqs.org/qa/rfcc-1940.html. Value: **32**	
public static final	**URL_SAFE** Encode using Base64-like encoding that is URL- and Filename-safe as described in Section 4 of RFC3548: http://www.faqs.org/rfcs/rfc3548.html. Value: **16**	

Method Summary

static byte[]	**decode**(byte[] source, int off, int len, int options) Very low-level access to decoding ASCII characters in the form of a byte array.
static byte[]	**decode**(String s) Decodes data from Base64 notation, automatically detecting gzip-compressed data and decompressing it.
static byte[]	**decode**(String s, int options) Decodes data from Base64 notation, automatically detecting gzip-compressed data and decompressing it.
static void	**decodeFileToFile**(String infile, String outfile) Reads infile and decodes it to outfile.
static byte[]	**decodeFromFile**(String filename) Convenience method for reading a base64-encoded file and decoding it.
static void	**decodeString**(String inString) Decodes inString and outputs result to stdout
static boolean	**decodeToFile**(String dataToDecode, String filename) Convenience method for decoding data to a file.

static Object	**decodeToObject**(String encodedObject) Attempts to decode Base64 data and deserialize a Java Object within.
static String	**encodeBytes**(byte[] source) Encodes a byte array into Base64 notation.
static String	**encodeBytes**(byte[] source, int options) Encodes a byte array into Base64 notation.
static String	**encodeBytes**(byte[] source, int off, int len) Encodes a byte array into Base64 notation.
static String	**encodeBytes**(byte[] source, int off, int len, int options) Encodes a byte array into Base64 notation.
static void	**encodeFileToFile**(String infile, String outfile) Reads infile and encodes it to outfile.
static String	**encodeFromFile**(String filename) Convenience method for reading a binary file and base64-encoding it.
static String	**encodeObject**(java.io.Serializable serializableObject) Serializes an object and returns the Base64-encoded version of that serialized object.
static String	**encodeObject**(java.io.Serializable serializableObject, int options) Serializes an object and returns the Base64-encoded version of that serialized object.
static void	**encodeString**(String inString) Encodes inString and outputs result to stdout
static boolean	**encodeToFile**(byte[] dataToEncode, String filename) Convenience method for encoding data to a file.
static void	**main**(String[] args) Encodes or decodes two files from the command line; **feel free to delete this method (in fact you probably should) if you're embedding this code into a larger program.**

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

NO_OPTIONS

`public static final int` **NO_OPTIONS**

No options specified. Value is zero.
Constant value: **0**

ENCODE

`public static final int` **ENCODE**

Specify encoding.
Constant value: **1**

DECODE

`public static final int DECODE`

Specify decoding.
Constant value: **0**

GZIP

`public static final int GZIP`

Specify that data should be gzip-compressed.
Constant value: **2**

DONT_BREAK_LINES

`public static final int DONT_BREAK_LINES`

Don't break lines when encoding (violates strict Base64 specification)
Constant value: **8**

URL_SAFE

`public static final int URL_SAFE`

Encode using Base64-like encoding that is URL- and Filename-safe as described in Section 4 of RFC3548:
http://www.faqs.org/rfcs/rfc3548.html. It is important to note that data encoded this way is *not* officially valid Base64, or at the very least should not be called Base64 without also specifying that is was encoded using the URL- and Filename-safe dialect.
Constant value: **16**

ORDERED

`public static final int ORDERED`

Encode using the special "ordered" dialect of Base64 described here: http://www.faqs.org/qa/rfcc-1940.html.
Constant value: **32**

Methods

main

`public final static void main(String[] args)`

Encodes or decodes two files from the command line; **feel free to delete this method (in fact you probably should) if you're embedding this code into a larger program.**

encodeObject

`public static String encodeObject(java.io.Serializable serializableObject)`

Serializes an object and returns the Base64-encoded version of that serialized object. If the object cannot be serialized or there is another error, the method will return null. The object is not GZip-compressed before being encoded.

Parameters:
serializableObject - The object to encode

Returns:
The Base64-encoded object

encodeObject

```
public static String encodeObject(java.io.Serializable serializableObject,
        int options)
```

Serializes an object and returns the Base64-encoded version of that serialized object. If the object cannot be serialized or there is another error, the method will return null.

Valid options:

```
  GZIP: gzip-compresses object before encoding it.
  DONT_BREAK_LINES: don't break lines at 76 characters
    Note: Technically, this makes your encoding non-compliant.
```

Example: encodeObject(myObj, Base64.GZIP) or

Example: encodeObject(myObj, Base64.GZIP | Base64.DONT_BREAK_LINES)

Parameters:
   serializableObject - The object to encode
   options - Specified options

Returns:
   The Base64-encoded object

See Also:
   GZIP
   DONT_BREAK_LINES

encodeBytes

```
public static String encodeBytes(byte[] source)
```

Encodes a byte array into Base64 notation. Does not GZip-compress data.

Parameters:
   source - The data to convert

encodeBytes

```
public static String encodeBytes(byte[] source,
        int options)
```

(continued from last page)

Encodes a byte array into Base64 notation.

Valid options:

```
   GZIP: gzip-compresses object before encoding it.
   DONT_BREAK_LINES: don't break lines at 76 characters
     Note: Technically, this makes your encoding non-compliant.
```

Example: encodeBytes(myData, Base64.GZIP) or

Example: encodeBytes(myData, Base64.GZIP | Base64.DONT_BREAK_LINES)

Parameters:
> source - The data to convert
> options - Specified options

See Also:
> GZIP
> DONT_BREAK_LINES

encodeBytes

```
public static String encodeBytes(byte[] source,
        int off,
        int len)
```

Encodes a byte array into Base64 notation. Does not GZip-compress data.

Parameters:
> source - The data to convert
> off - Offset in array where conversion should begin
> len - Length of data to convert

encodeBytes

```
public static String encodeBytes(byte[] source,
        int off,
        int len,
        int options)
```

Encodes a byte array into Base64 notation.

Valid options:

```
   GZIP: gzip-compresses object before encoding it.
   DONT_BREAK_LINES: don't break lines at 76 characters
     Note: Technically, this makes your encoding non-compliant.
```

Example: encodeBytes(myData, Base64.GZIP) or

Example: encodeBytes(myData, Base64.GZIP | Base64.DONT_BREAK_LINES)

Parameters:
source - The data to convert
off - Offset in array where conversion should begin
len - Length of data to convert
options - Specified options, alphabet type is pulled from this (standard, url-safe, ordered)

See Also:
GZIP
DONT_BREAK_LINES

decode

```
public static byte[] decode(byte[] source,
        int off,
        int len,
        int options)
```

Very low-level access to decoding ASCII characters in the form of a byte array. Does not support automatically gunzipping or any other "fancy" features.

Parameters:
source - The Base64 encoded data
off - The offset of where to begin decoding
len - The length of characters to decode

Returns:
decoded data

decode

```
public static byte[] decode(String s)
```

Decodes data from Base64 notation, automatically detecting gzip-compressed data and decompressing it.

Parameters:
s - the string to decode

Returns:
the decoded data

decode

```
public static byte[] decode(String s,
        int options)
```

Decodes data from Base64 notation, automatically detecting gzip-compressed data and decompressing it.

Parameters:
s - the string to decode
options - encode options such as URL_SAFE

Returns:
the decoded data

decodeToObject

```
public static Object decodeToObject(String encodedObject)
```

Attempts to decode Base64 data and deserialize a Java Object within. Returns null if there was an error.

Parameters:
encodedObject - The Base64 data to decode

Returns:
The decoded and deserialized object

---

encodeToFile

```
public static boolean encodeToFile(byte[] dataToEncode,
        String filename)
```

Convenience method for encoding data to a file.

Parameters:
dataToEncode - byte array of data to encode in base64 form
filename - Filename for saving encoded data

Returns:
true if successful, false otherwise

---

decodeToFile

```
public static boolean decodeToFile(String dataToDecode,
        String filename)
```

Convenience method for decoding data to a file.

Parameters:
dataToDecode - Base64-encoded data as a string
filename - Filename for saving decoded data

Returns:
true if successful, false otherwise

---

decodeFromFile

```
public static byte[] decodeFromFile(String filename)
```

Convenience method for reading a base64-encoded file and decoding it.

Parameters:
filename - Filename for reading encoded data

Returns:
decoded byte array or null if unsuccessful

---

encodeFromFile

```
public static String encodeFromFile(String filename)
```

Convenience method for reading a binary file and base64-encoding it.

Parameters:
filename - Filename for reading binary data

Returns:
base64-encoded string or null if unsuccessful

encodeFileToFile

```
public static void encodeFileToFile(String infile,
        String outfile)
```

Reads infile and encodes it to outfile.

Parameters:
    infile - Input file
    outfile - Output file

encodeString

```
public static void encodeString(String inString)
```

Encodes inString and outputs result to stdout

Parameters:
    inString - Input string

decodeString

```
public static void decodeString(String inString)
```

Decodes inString and outputs result to stdout

Parameters:
    inString - Input string

decodeFileToFile

```
public static void decodeFileToFile(String infile,
        String outfile)
```

Reads infile and decodes it to outfile.

Parameters:
    infile - Input file
    outfile - Output file

com.wowza.util
Class Base64.InputStream

```
java.lang.Object
    │
    +-java.io.InputStream
        │
        +-java.io.FilterInputStream
            │
            +-com.wowza.util.Base64.InputStream
```

All Implemented Interfaces:
> java.io.Closeable

---

public static class **Base64.InputStream**
extends java.io.FilterInputStream

A `Base64.InputStream` will read data from another java.io.InputStream, given in the constructor, and encode/decode to/from Base64 notation on the fly.

See Also:
> `Base64`

Fields inherited from class `java.io.FilterInputStream`
`in`

Constructor Summary	
public	`Base64.InputStream`(java.io.InputStream in) Constructs a `Base64.InputStream` in DECODE mode.
public	`Base64.InputStream`(java.io.InputStream in, int options) Constructs a `Base64.InputStream` in either ENCODE or DECODE mode.

Method Summary	
int	`read`() Reads enough of the input stream to convert to/from Base64 and returns the next byte.
int	`read`(byte[] dest, int off, int len) Calls `read()` repeatedly until the end of stream is reached or len bytes are read.

Methods inherited from class `java.io.FilterInputStream`
`available, close, mark, markSupported, read, read, read, reset, skip`

Methods inherited from class `java.io.InputStream`
`available, close, mark, markSupported, read, read, read, reset, skip`

Methods inherited from class `java.lang.Object`
`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `java.io.Closeable`

```
close
```

Constructors

Base64.InputStream

public **Base64.InputStream**(java.io.InputStream in)

Constructs a `Base64.InputStream` in DECODE mode.

Parameters:

in - the java.io.InputStream from which to read data.

Base64.InputStream

public **Base64.InputStream**(java.io.InputStream in,
                              int options)

Constructs a `Base64.InputStream` in either ENCODE or DECODE mode.

Valid options:

```
  ENCODE or DECODE: Encode or Decode as data is read.
  DONT_BREAK_LINES: don't break lines at 76 characters
    (only meaningful when encoding)
    Note: Technically, this makes your encoding non-compliant.
```

Example: new Base64.InputStream(in, Base64.DECODE)

Parameters:

in - the java.io.InputStream from which to read data.
options - Specified options

See Also:

`Base64.ENCODE`
`Base64.DECODE`
`Base64.DONT_BREAK_LINES`

Methods

read

public int **read**()
  throws java.io.IOException

Reads enough of the input stream to convert to/from Base64 and returns the next byte.

Returns:

next byte

read

```
public int read(byte[] dest,
        int off,
        int len)
  throws java.io.IOException
```

Calls read() repeatedly until the end of stream is reached or len bytes are read. Returns number of bytes read into array or -1 if end of stream is encountered.

Parameters:

dest - array to hold values

off - offset for array

len - max number of bytes to read into array

Returns:

bytes read into array or -1 if end of stream is encountered.

read

```
public int read(byte[] dest,
        int off,
        int len)
```

com.wowza.util
Class Base64.OutputStream

```
java.lang.Object
    │
    +-java.io.OutputStream
        │
        +-java.io.FilterOutputStream
            │
            +-com.wowza.util.Base64.OutputStream
```

All Implemented Interfaces:
        java.io.Flushable, java.io.Closeable

---

public static class **Base64.OutputStream**
extends java.io.FilterOutputStream

A `Base64.OutputStream` will write data to another java.io.OutputStream, given in the constructor, and encode/decode to/from Base64 notation on the fly.

See Also:
        Base64

Fields inherited from class `java.io.FilterOutputStream`
out

Constructor Summary

public	**Base64.OutputStream**(java.io.OutputStream out) Constructs a Base64.OutputStream in ENCODE mode.
public	**Base64.OutputStream**(java.io.OutputStream out, int options) Constructs a Base64.OutputStream in either ENCODE or DECODE mode.

Method Summary

void	**close**() Flushes and closes (I think, in the superclass) the stream.
void	**flushBase64**() Method added by PHIL.
void	**resumeEncoding**() Resumes encoding of the stream.
void	**suspendEncoding**() Suspends encoding of the stream.
void	**write**(byte[] theBytes, int off, int len) Calls write(int) repeatedly until len bytes are written.
void	**write**(int theByte) Writes the byte to the output stream after converting to/from Base64 notation.

Methods inherited from class `java.io.FilterOutputStream`

```
close, flush, write, write, write
```

Methods inherited from class `java.io.OutputStream`

```
close, flush, write, write, write
```

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `java.io.Closeable`

```
close
```

Methods inherited from interface `java.io.Flushable`

```
flush
```

Constructors

Base64.OutputStream

public **Base64.OutputStream**(java.io.OutputStream out)

> Constructs a Base64.OutputStream in ENCODE mode.
>
> #### Parameters:
>> out - the java.io.OutputStream to which data will be written.

Base64.OutputStream

public **Base64.OutputStream**(java.io.OutputStream out,
                              int options)

> Constructs a Base64.OutputStream in either ENCODE or DECODE mode.
>
> Valid options:

```
    ENCODE or DECODE: Encode or Decode as data is read.
    DONT_BREAK_LINES: don't break lines at 76 characters
      (only meaningful when encoding)
      Note: Technically, this makes your encoding non-compliant.
```

> Example: new Base64.OutputStream(out, Base64.ENCODE)
>
> #### Parameters:
>> out - the java.io.OutputStream to which data will be written.
>> options - Specified options.

See Also:
> Base64.ENCODE
> Base64.DECODE
> Base64.DONT_BREAK_LINES

Methods

write

```
public void write(int theByte)
   throws java.io.IOException
```

> Writes the byte to the output stream after converting to/from Base64 notation. When encoding, bytes are buffered three at a time before the output stream actually gets a write() call. When decoding, bytes are buffered four at a time.

> **Parameters:**
> > theByte - the byte to write

write

```
public void write(byte[] theBytes,
         int off,
         int len)
   throws java.io.IOException
```

> Calls write(int) repeatedly until len bytes are written.

> **Parameters:**
> > theBytes - array from which to read bytes
> > off - offset for array
> > len - max number of bytes to read into array

flushBase64

```
public void flushBase64()
   throws java.io.IOException
```

> Method added by PHIL. [Thanks, PHIL. -Rob] This pads the buffer without closing the stream.

close

```
public void close()
   throws java.io.IOException
```

> Flushes and closes (I think, in the superclass) the stream.

suspendEncoding

```
public void suspendEncoding()
   throws java.io.IOException
```

> Suspends encoding of the stream. May be helpful if you need to embed a piece of base640-encoded data in a stream.

resumeEncoding

```
public void resumeEncoding()
```

> Resumes encoding of the stream. May be helpful if you need to embed a piece of base640-encoded data in a stream.

com.wowza.util
Class BufferUtils

```
java.lang.Object
    │
    +-com.wowza.util.BufferUtils
```

public class **BufferUtils**
extends Object

BufferUtils: utilities for converting between binary data and Java primitive types. Faster than Java runtime equivalents

Field Summary

public static final	[alphas](#)
public static final	[hexadecimal](#)

Constructor Summary

public	[BufferUtils](#)()

Method Summary

static int	[byteArrayToInt](#)(byte[] b) Convert byte array to int
static int	[byteArrayToInt](#)(byte[] b, int offset) Conver byte array to int with offset
static int	[byteArrayToInt](#)(byte[] b, int offset, int count) Convert byte array to int with offset.
static int	[byteArrayToInt](#)(byte[] b, int offset, int count, boolean isReverse) Convert byte array to int with offset.
static long	[byteArrayToLong](#)(byte[] b) Convert byte array to long
static long	[byteArrayToLong](#)(byte[] b, int offset) Conver byte array to long with offset
static long	[byteArrayToLong](#)(byte[] b, int offset, int count) Convert byte array to long with offset.
static long	[byteArrayToLong](#)(byte[] b, int offset, int count, boolean isReverse) Convert byte array to long with offset.
static int	[byteArrayToShort](#)(byte[] b) Convert byte array to int

static int	**byteArrayToShort**(byte[] b, int offset) Conver byte array to int with offset
static int	**byteArrayToShort**(byte[] b, int offset, int count) Convert byte array to int with offset.
static int	**byteArrayToShort**(byte[] b, int offset, int count, boolean isReverse) Convert byte array to int with offset.
static String	**byteArrayToString**(byte[] b) Convert a byte array to a String (UTF-8 encoding assumed)
static String	**byteArrayToString**(byte[] b, int offset, int count) Convert a byte array to a String (UTF-8 encoding assumed)
static byte[]	**decodeHexString**(String hexStr) Decode a string as a byte array
static int	**doCRC32**(int crc, byte[] buffer, int offset, int len) Calculate an IEEE CRC32 value for MPEG transport stream from a starting crc value
static String	**encodeHexString**(byte[] bytes) Encode a byte array as a string
static String	**encodeHexString**(byte[] bytes, int offset, int len) Encode a byte array as a string
static int	**getUnsignedShort**(java.nio.ByteBuffer buffer)
static int	**indexOf**(byte[] source, byte[] pattern) Finds the first occurrence of a byte pattern in a byte buffer.
static int	**indexOfDifferent**(byte[] buffer1, byte[] buffer2) Compare two byte buffers, and return the index of the first byte that is different.
static byte[]	**intToByteArray**(int value) Convert a int value to a byte array in network order
static void	**intToByteArray**(int value, byte[] buffer, int offset, int size) Convert a int value to a byte array in network order
static void	**intToByteArray**(int value, byte[] buffer, int offset, int size, boolean isReverse) Convert a int value to a byte array in network order
static byte[]	**intToByteArray**(int value, int size) Convert a int value to a byte array in network order
static byte[]	**longToByteArray**(long value) Convert a long value to a byte array in network order
static void	**longToByteArray**(long value, byte[] buffer, int offset, int size) Convert a long value to a byte array in network order
static void	**longToByteArray**(long value, byte[] buffer, int offset, int size, boolean isReverse) Convert a long value to a byte array in network order
static byte[]	**longToByteArray**(long value, int size) Convert a long value to a byte array in network order

static boolean	startsWith(byte[] source, byte[] pattern)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

hexadecimal

public static final java.lang.String **hexadecimal**

alphas

public static final java.lang.String **alphas**

Constructors

BufferUtils

public **BufferUtils**()

Methods

encodeHexString

public static String **encodeHexString**(byte[] bytes)

Encode a byte array as a string

Parameters:
bytes - byte array

Returns:
string

encodeHexString

public static String **encodeHexString**(byte[] bytes,
        int offset,
        int len)

Encode a byte array as a string

Parameters:
bytes - byte array
offset - offset
len - length

Returns:
> string

decodeHexString

```
public static byte[] decodeHexString(String hexStr)
```

Decode a string as a byte array

Parameters:
> hexStr - string

Returns:
> byte array

byteArrayToString

```
public static String byteArrayToString(byte[] b)
```

Convert a byte array to a String (UTF-8 encoding assumed)

Parameters:
> b - byte array

Returns:
> resultant string

byteArrayToString

```
public static String byteArrayToString(byte[] b,
        int offset,
        int count)
```

Convert a byte array to a String (UTF-8 encoding assumed)

Parameters:
> b - byte array
> offset - offset
> count - len

Returns:
> resultant string

byteArrayToLong

```
public static long byteArrayToLong(byte[] b)
```

Convert byte array to long

Parameters:
> b - byte array (8 bytes)

Returns:
> long value

byteArrayToLong

```
public static long byteArrayToLong(byte[] b,
        int offset)
```

Conver byte array to long with offset

Parameters:
b - byte array (8 bytes)
offset - offset

Returns:
long value

byteArrayToLong

```
public static long byteArrayToLong(byte[] b,
        int offset,
        int count)
```

Convert byte array to long with offset. Count is the number of bytes. Can be less than 8. If less than 8 just fills lower bits in value.

Parameters:
b - byte array
offset - offset
count - number of bytes

Returns:
long value

byteArrayToLong

```
public static long byteArrayToLong(byte[] b,
        int offset,
        int count,
        boolean isReverse)
```

Convert byte array to long with offset. Count is the number of bytes. Can be less than 8. If less than 8 just fills lower bits in value. The reverse flag allows data to be in reverse order.

Parameters:
b - byte array
offset - offset
count - number of bytes
isReverse - is data in reverse order

Returns:
long value

byteArrayToInt

```
public static int byteArrayToInt(byte[] b)
```

Convert byte array to int

Parameters:
b - byte array (4 bytes)

Returns:

int value

byteArrayToInt

```
public static int byteArrayToInt(byte[] b,
        int offset)
```

Conver byte array to int with offset

Parameters:
b - byte array (4 bytes)
offset - offset

Returns:
int value

byteArrayToInt

```
public static int byteArrayToInt(byte[] b,
        int offset,
        int count)
```

Convert byte array to int with offset. Count is the number of bytes. Can be less than 4. If less than 4 just fills lower bits in value.

Parameters:
b - byte array
offset - offset
count - number of bytes

Returns:
int value

byteArrayToInt

```
public static int byteArrayToInt(byte[] b,
        int offset,
        int count,
        boolean isReverse)
```

Convert byte array to int with offset. Count is the number of bytes. Can be less than 4. If less than 4 just fills lower bits in value. The reverse flag allows data to be in reverse order.

Parameters:
b - byte array
offset - offset
count - number of bytes
isReverse - is data in reverse order

Returns:
int value

byteArrayToShort

```
public static int byteArrayToShort(byte[] b)
```

Convert byte array to int

Parameters:
b - byte array (2 bytes)

Returns:
> int value

byteArrayToShort

```
public static int byteArrayToShort(byte[] b,
        int offset)
```

> Conver byte array to int with offset

Parameters:
> b - byte array (2 bytes)
> `offset` - offset

Returns:
> int value

byteArrayToShort

```
public static int byteArrayToShort(byte[] b,
        int offset,
        int count)
```

> Convert byte array to int with offset. Count is the number of bytes. Can be less than 2. If less than 2 just fills lower bits in value.

Parameters:
> b - byte array
> `offset` - offset
> `count` - number of bytes

Returns:
> int value

byteArrayToShort

```
public static int byteArrayToShort(byte[] b,
        int offset,
        int count,
        boolean isReverse)
```

> Convert byte array to int with offset. Count is the number of bytes. Can be less than 2. If less than 2 just fills lower bits in value. The reverse flag allows data to be in reverse order.

Parameters:
> b - byte array
> `offset` - offset
> `count` - number of bytes
> `isReverse` - is data in reverse order

Returns:
> int value

intToByteArray

```
public static byte[] intToByteArray(int value)
```

> Convert a int value to a byte array in network order

Parameters:
> `value` - value

Returns:
>   4-byte array with value

intToByteArray

```
public static byte[] intToByteArray(int value,
        int size)
```

>   Convert a int value to a byte array in network order

Parameters:
>   `value` - value
>   `size` - size of resultant byte array

Returns:
>   size-byte array with value

intToByteArray

```
public static void intToByteArray(int value,
        byte[] buffer,
        int offset,
        int size)
```

>   Convert a int value to a byte array in network order

Parameters:
>   `value` - value
>   `buffer` - destination byte array
>   `offset` - starting offset in byte array
>   `size` - number of bytes to write

intToByteArray

```
public static void intToByteArray(int value,
        byte[] buffer,
        int offset,
        int size,
        boolean isReverse)
```

>   Convert a int value to a byte array in network order

Parameters:
>   `value` - value
>   `buffer` - destination byte array
>   `offset` - starting offset in byte array
>   `size` - number of bytes to write
>   `isReverse` - is data in reverse order

longToByteArray

```
public static byte[] longToByteArray(long value)
```

>   Convert a long value to a byte array in network order

Parameters:
>   `value` - value

Returns:

8-byte array with value

longToByteArray

```
public static byte[] longToByteArray(long value,
        int size)
```

Convert a long value to a byte array in network order

Parameters:
value - value
size - size of resultant byte array

Returns:
size-byte array with value

longToByteArray

```
public static void longToByteArray(long value,
        byte[] buffer,
        int offset,
        int size)
```

Convert a long value to a byte array in network order

Parameters:
value - value
buffer - destination byte array
offset - starting offset in byte array
size - number of bytes to write

longToByteArray

```
public static void longToByteArray(long value,
        byte[] buffer,
        int offset,
        int size,
        boolean isReverse)
```

Convert a long value to a byte array in network order

Parameters:
value - value
buffer - destination byte array
offset - starting offset in byte array
size - number of bytes to write
isReverse - is data in reverse order

getUnsignedShort

```
public static int getUnsignedShort(java.nio.ByteBuffer buffer)
```

doCRC32

```
public static int doCRC32(int crc,
        byte[] buffer,
        int offset,
        int len)
```

Calculate an IEEE CRC32 value for MPEG transport stream from a starting crc value

Parameters:
>   `crc` - starting crc value
>   `buffer` - buffer
>   `offset` - offset
>   `len` - len

Returns:
>   crc value

indexOf

```
public static int indexOf(byte[] source,
        byte[] pattern)
```

Finds the first occurrence of a byte pattern in a byte buffer.

Note: If we want to improve the performance, we could implement the Knuth-Morris-Pratt algorithm. But I don't need the speed nor do I have time today!

Parameters:
>   `source` - The source byte buffer
>   `pattern` - the pattern we're looking for.

Returns:
>   the index of source where the pattern is found, else -1

indexOfDifferent

```
public static int indexOfDifferent(byte[] buffer1,
        byte[] buffer2)
```

Compare two byte buffers, and return the index of the first byte that is different.

Parameters:
>   `buffer1` - byte array1
>   `buffer2` - byte array2

Returns:
>   index where buffers differ, or -1.

startsWith

```
public static boolean startsWith(byte[] source,
        byte[] pattern)
```

com.wowza.util
Class DebugUtils

```
java.lang.Object
   │
   +-com.wowza.util.DebugUtils
```

public final class **DebugUtils**
extends Object

DebugUtils: Debugging utilties.

Constructor Summary

public	**DebugUtils**()

Method Summary

static java.io.File	**byteArrayToFile**(byte[] data, String filePath) Dump a buffer of bytes to a file.
static boolean	**doesStackContainMethod**(String methodName) Examine current stack trace to determine if the specified method name in the the trace.
static String	**formatBytes**(byte[] data) Format byte array for printing.
static String	**formatBytes**(byte[] data, boolean showIndex) Format byte array for printing.
static String	**formatBytes**(byte[] data, int offset, int len) Format byte array for printing.
static String	**formatBytes**(byte[] data, int offset, int len, boolean showIndex) Format byte array for printing.
static String	**formatBytesShort**(byte[] data) Format byte array for printing.
static String	**formatBytesShort**(byte[] data, int offset, int len) Format byte array for printing.
static String	**formatBytesStruct**(byte[] data)
static String	**formatBytesStruct**(byte[] data, int offset, int len) Format byte array for printing.
static String	**formatMilliseconds**(long ms) Give a time in seconds, return a String representing the time in hh:mm:ss.mmm.
static String	**formatSeconds**(long t) Give a time in seconds, return a String representing the time in hh:mm:ss.

static String	formatUtcTime(long utcTime)	
static String	stackTraceToSingleLineString(Throwable e, int maxLines) Given an exception, return single line String representation.	
static String	stackTraceToString(Throwable e) Given an exception, return String representation.	
static String	stackTraceToString(Throwable e, int maxLines, String seperator) Given an exception, return single line String representation.	
static String	toHex(byte value) Format a byte value to a 0xff format	
static String	toHex(int value) Format a byte value to a 0xffffffff format	
static String	toLong(long value) Format a long value to a 0xffffffffffffffff format	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

DebugUtils

public **DebugUtils**()

Methods

formatBytesShort

public static String **formatBytesShort**(byte[] data)

Format byte array for printing. Simple format as rows of hex values (16 values per row)

Parameters:
data - byte array

Returns:
formatted string

formatBytesShort

```
public static String formatBytesShort(byte[] data,
        int offset,
        int len)
```

Format byte array for printing. Simple format as rows of hex values (16 values per row)

Parameters:

> data - byte array
> offset - offset in array
> len - data len

Returns:
> formatted string

---

formatBytes

```
public static String formatBytes(byte[] data)
```

Format byte array for printing. Format as rows of hex values (16 values per row) along with text representation of data.

Parameters:
> data - byte array

Returns:
> formatted string

---

formatBytes

```
public static String formatBytes(byte[] data,
        boolean showIndex)
```

Format byte array for printing. Format as rows of hex values (16 values per row) along with text representation of data.

Parameters:
> data - byte array

Returns:
> formatted string

---

formatBytes

```
public static String formatBytes(byte[] data,
        int offset,
        int len)
```

Format byte array for printing. Format as rows of hex values (16 values per row) along with text representation of data.

Parameters:
> data - byte array
> offset - start index in array
> len - length to format

Returns:
> formatted string

---

formatBytes

```
public static String formatBytes(byte[] data,
        int offset,
        int len,
        boolean showIndex)
```

Format byte array for printing. Format as rows of hex values (16 values per row) along with text representation of data.

Parameters:
> data - byte array
> offset - start index in array

`len` - length to format

Returns:
formatted string

formatBytesStruct

```
public static String formatBytesStruct(byte[] data)
```

formatBytesStruct

```
public static String formatBytesStruct(byte[] data,
        int offset,
        int len)
```

Format byte array for printing. Format as Java primitive byte values (8 per row).

Parameters:
`data` - byte array

Returns:
formatted string

toHex

```
public static String toHex(byte value)
```

Format a byte value to a 0xff format

Parameters:
`value` - byte value

Returns:
return string

toHex

```
public static String toHex(int value)
```

Format a byte value to a 0xffffffff format

Parameters:
`value` - int value

Returns:
return string

toLong

```
public static String toLong(long value)
```

Format a long value to a 0xffffffffffffffff format

Parameters:
`value` - long value

Returns:

return string

byteArrayToFile

```
public static java.io.File byteArrayToFile(byte[] data,
        String filePath)
```

Dump a buffer of bytes to a file. Useful for debugging.

Parameters:
`data` - a buffer of bytes
`filePath` - The path and filename

formatSeconds

```
public static String formatSeconds(long t)
```

Give a time in seconds, return a String representing the time in hh:mm:ss.

123 s --> 00:02:03

Parameters:
`t`

Returns:
time representation

formatMilliseconds

```
public static String formatMilliseconds(long ms)
```

Give a time in seconds, return a String representing the time in hh:mm:ss.mmm.

123456 ms --> 00:02:03.456

Parameters:
`ms`

Returns:
time representation

formatUtcTime

```
public static String formatUtcTime(long utcTime)
```

stackTraceToString

```
public static String stackTraceToString(Throwable e)
```

Given an exception, return String representation. Note: this is the entire raw stack trace including tabs and line endings

Parameters:
`e` - throwable

Returns:
stack trace representation

stackTraceToSingleLineString

```
public static String stackTraceToSingleLineString(Throwable e,
        int maxLines)
```

Given an exception, return single line String representation. Note: line endings are replaced with "|" character. Tabs are removed.

Parameters:
    e - throwable
    maxLines - If greater than zero, returns only first maxLines of trace

Returns:
    stack trace info

stackTraceToString

```
public static String stackTraceToString(Throwable e,
        int maxLines,
        String seperator)
```

Given an exception, return single line String representation. Note: line endings are replaced with "|" character. Tabs are removed.

Parameters:
    e - throwable
    maxLines - If greater than zero, returns only first maxLines of trace
    seperator - character to replace line endings with

Returns:
    stack trace info

doesStackContainMethod

```
public static boolean doesStackContainMethod(String methodName)
```

Examine current stack trace to determine if the specified method name in the the trace.

Could be enhanced quite a bit by also checking for Class and method. But simple for now.

Parameters:
    methodName

Returns:
    true if in trace, else false

com.wowza.util
Class ElapsedTimer

```
java.lang.Object
    │
    +-com.wowza.util.ElapsedTimer
```

public class **ElapsedTimer**
extends Object

ElapsedTimer: Utility class for keep track of the duration an object has been in existence.

Constructor Summary

public	**ElapsedTimer**() Construct a new ElapsedTimer and start the clock

Method Summary

java.util.Date	**getDate**() Get the date the object was created
String	**getDateString**() Get the date object was created as formatted String
long	**getTime**() Get elapsed time object in existence (milliseconds)
double	**getTimeSeconds**() Get elapsed time object in seconds
String	**getTimeString**() Get elapsed time object in existence as formatted String (Ex: 3 days 2 minutes 5 seconds)

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

ElapsedTimer

public **ElapsedTimer**()

Construct a new ElapsedTimer and start the clock

Methods

getDate

```
public java.util.Date getDate()
```

Get the date the object was created

Returns:
date object created

getDateString

```
public String getDateString()
```

Get the date object was created as formatted String

Returns:
date object created as formatted String

getTime

```
public long getTime()
```

Get elapsed time object in existence (milliseconds)

Returns:
elapsed time (milliseconds)

getTimeSeconds

```
public double getTimeSeconds()
```

Get elapsed time object in seconds

Returns:
elapsed time in seconds

getTimeString

```
public String getTimeString()
```

Get elapsed time object in existence as formatted String (Ex: 3 days 2 minutes 5 seconds)

Returns:
elapsed time as formatted String

com.wowza.util
Class FileUtils

```
java.lang.Object
    │
    +-com.wowza.util.FileUtils
```

public class **FileUtils**
extends Object

FileUtils: File utilities

Constructor Summary

public	[FileUtils](#)()

Method Summary

static void	[closeQuietly](#)(java.io.InputStream stream)
static void	[closeQuietly](#)(java.io.OutputStream stream)
static void	[closeQuietly](#)(java.io.Reader reader)
static void	[copyFile](#)(java.io.File fromFile, java.io.File toFile) Simple file copy routine
static void	[copyFile2](#)(java.io.File fromFile, java.io.File toFile)
static boolean	[deleteDirectory](#)(java.io.File path)
static byte[]	[fileToByteArray](#)(java.io.File file)
static String	[streamNameToValidFilename](#)(String name) Encode a stream name (deal with path elements) to a valid filename.
static String	[toValidFilename](#)(String name) Encode a name to a valid filename.
static void	[traverseDirectory](#)(java.io.File dir, [IFileProcess](#) fileNotify) Traverse a directory recursively calling fileNotify for each file and folder encountered
static java.io.File	[versionFile](#)(java.io.File newFile) Rename a file using the file format [original-name]_#[.ext].

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

FileUtils

```
public FileUtils()
```

Methods

fileToByteArray

```
public static byte[] fileToByteArray(java.io.File file)
```

streamNameToValidFilename

```
public static String streamNameToValidFilename(String name)
```

Encode a stream name (deal with path elements) to a valid filename.

Parameters:
name - stream name

Returns:
encoded filename

toValidFilename

```
public static String toValidFilename(String name)
```

Encode a name to a valid filename.

Parameters:
name

Returns:
encoded filename

copyFile

```
public static void copyFile(java.io.File fromFile,
        java.io.File toFile)
```

Simple file copy routine

Parameters:
fromFile - from file
toFile - to file

copyFile2

```
public static void copyFile2(java.io.File fromFile,
        java.io.File toFile)
  throws java.io.IOException
```

closeQuietly

```
public static void closeQuietly(java.io.InputStream stream)
```

closeQuietly

```
public static void closeQuietly(java.io.OutputStream stream)
```

closeQuietly

```
public static void closeQuietly(java.io.Reader reader)
```

deleteDirectory

```
public static boolean deleteDirectory(java.io.File path)
```

versionFile

```
public static java.io.File versionFile(java.io.File newFile)
```

Rename a file using the file format [original-name]_#[.ext].

Parameters:
newFile - input file

Returns:
renamed file

traverseDirectory

```
public static void traverseDirectory(java.io.File dir,
        IFileProcess fileNotify)
```

Traverse a directory recursively calling fileNotify for each file and folder encountered

Parameters:
dir - starting directory
fileNotify - file notify object

com.wowza.util
Class FLVUtils

```
java.lang.Object
    |
    +-com.wowza.util.FLVUtils
```

public final class **FLVUtils**
extends Object

FLVUtils: utility for reading and writing .flv files.

Field Summary

public static final	**FLV_CHUNKHEADER_BUFFERSIZE** Size of temporary buffer needed for flv reading (byte[]) Value: **13**
public static final	**FLV_CHUNKHEADER_FIRSTBYTE** Header values: first byte of packet data Value: **3**
public static final	**FLV_CHUNKHEADER_HEADERSIZE** Size of packet header (byte[]) Value: **11**
public static final	**FLV_CHUNKHEADER_ISIZE** Header values: packet size Value: **1**
public static final	**FLV_CHUNKHEADER_ITIMECODE** Header values: timecode (milliseconds) Value: **2**
public static final	**FLV_CHUNKHEADER_ITYPE** Heaeder values: packet type Value: **0**
public static final	**FLV_CHUNKHEADER_SECONDBYTE** Header values: second byte of packet data Value: **4**
public static final	**FLV_CHUNKHEADER_VALUESIZE** Size of header values array (long[]) Value: **5**
public static final	**FLV_DFRAME** D video frame type (partial frame based on key frame) Value: **3**
public static final	**FLV_KFRAME** Key video frame type Value: **1**

public static final	FLV_PFRAME
	P video frame type (partial frame based on previous frame) Value: **2**
public static final	FLV_TCINDEXAUDIO
	Value: **0**
public static final	FLV_TCINDEXDATA
	Value: **2**
public static final	FLV_TCINDEXVIDEO
	Value: **1**
public static final	FLV_UFRAME
	Unknown video frame type Value: **0**

Constructor Summary

public	FLVUtils()

Method Summary

static long	adjustFirstPacketTCs(java.util.List audioTCs, java.util.List videoTCs, java.util.List dataTCs)
	Align list of timecode for each data type.
static int	audioCodecStringToId(String codecString)
	Parse a string to get the codec ID defined by IVHost.CODEC_AUDIO_*
static String	audioCodecToMetaDataString(int codec)
	Get a printable string representation of the audio codecs defined as IVHost.CODEC_AUDIO_* as the string used in the onMetaData event
static String	audioCodecToString(int codec)
	Get a printable string representation of the audio codecs defined as IVHost.CODEC_AUDIO_*
static String	frameTypeToString(int frameType)
static int	getAudioCodec(AMFPacket packet)
	Get the codec id for this audio packet.
static int	getAudioCodec(int value)
	Return the codec portion of the first byte of an audio packet.
static int	getAudioMP3Layer(AMFPacket packet)
	Audio marked as MP3 is really MPEG1 Layer 1-3.
static int	getFrameType(byte value)
	Given the first byte of a video packet, determine the frame type (FLV_*FRAME)
static int	getFrameType(int value)
	Given the first byte of a video packet, determine the frame type (FLV_*FRAME)

static int	**getFrameType**(int[] values) Given the headers values (including first byte of the packet), determine the type of video frame (FLV_*FRAME)
static long	**getLastTC**(java.io.File file) Get the duration of an .flv file.
static OnMetadataBasic	**getOnMetadataData**(AMFPacket metaDataPacket)
static int	**getVideoCodec**(AMFPacket packet) Get the codec id for this video packet.
static int	**getVideoCodec**(int value) Return the codec portion of the first byte of an video packet.
static int	**getVideoFrameType**(AMFPacket packet)
static int	**getVideoTimecodeOffset**(AMFPacket packet) Get the timecode offset in milliseconds between the PTS and DTS for this frame.
static int	**getVideoTimecodeOffset**(byte[] buffer) Get the timecode offset in milliseconds between the PTS and DTS for this frame.
static java.util.List	**interleavePackets**(java.util.List audioPackets, java.util.List videoPackets, java.util.List dataPackets, java.util.List audioTCs, java.util.List videoTCs, java.util.List dataTCs, java.util.List dataTypes, long[] currentTCs) This is a utility function primarily used for IMediaWriters.
static java.util.List	**interleavePackets**(java.util.List audioPackets, java.util.List videoPackets, java.util.List dataPackets, java.util.List audioTCs, java.util.List videoTCs, java.util.List dataTCs, long[] currentTCs) This is a utility function primarily used for IMediaWriters.
static boolean	**isAudioCodecConfig**(AMFPacket packet) Returns true if the packet is a video codec config packet
static boolean	**isOnMetadataPacket**(AMFPacket packet) Returns true if packet is onMetaData or [@setDataFrame, onMetaData] data packet.
static boolean	**isVideoCodecConfig**(AMFPacket packet) Returns true if the packet is a video codec config packet
static boolean	**isVideoKeyFrame**(AMFPacket packet) Returns true if the packet is a video key frame
static boolean	**isVideoKeyFrame**(byte[] buffer) Returns true if the packet is a video key frame
static boolean	**isVideoKeyFrame**(java.nio.ByteBuffer buffer) Returns true if the packet is a video key frame
static boolean	**isVideoKeyFrame**(int[] chunkHeaderValues) Returns true if the packet is a video key frame
static AMFPacket	**readChunk**(java.io.DataInput is) Read a packets worth of .flv data from an InputStream and return as an AMFPacket
static AMFPacket	**readChunk**(java.io.InputStream is) Read a packets worth of .flv data from an InputStream and return as an AMFPacket

static void	**readChunkHeader**(java.io.RandomAccessFile is, byte[] buffer, int[] values) Read packet header.
static boolean	**readHeader**(java.io.DataInput is) Read file header.
static boolean	**readHeader**(java.io.InputStream is) Read file header.
static void	**readPrevChunkHeader**(java.io.RandomAccessFile is, byte[] buffer, int[] values) Back up one packet from current position in the file and read the packet header.
static String	**streamCodecToString**(int codec) Get a printable string representation of the stream codecs defined as IVHost.CODEC_STREAM_*
static **AMFPacket**	**updateOnCuePointTimecode**(**AMFPacket** packet, long timecode)
static java.nio.ByteBuffer	**updateOnCuePointTimecode**(java.nio.ByteBuffer data, int dataType, long timecode)
static int	**videoCodecStringToId**(String codecString) Parse a string to get the codec ID defined by IVHost.CODEC_VIDEO_*
static String	**videoCodecToMetaDataString**(int codec) Get a printable string representation of the video codecs defined as IVHost.CODEC_VIDEO_* as the string used in the onMetaData event
static String	**videoCodecToString**(int codec) Get a printable string representation of the video codecs defined as IVHost.CODEC_VIDEO_*
static void	**writeChunk**(java.io.DataOutput ds, java.nio.ByteBuffer data, int size, long timecode, byte type)
static void	**writeChunk**(java.io.OutputStream ds, java.nio.ByteBuffer data, int size, long timecode, byte type) Write a packets worth of data.
static void	**writeDuration**(java.io.File file, double duration) Write the duration to an existing .flv file.
static void	**writeHeader**(java.io.OutputStream ds, double duration, int audiocodecid, int videocodecid, String createdBy, java.util.Map extraMetadata) Write file header including onMetaData packet.
static void	**writeHeader**(java.io.OutputStream ds, double duration, java.util.Map extraMetadata) Write file header including onMetaData packet.
static void	**writePackets**(java.io.OutputStream ds, java.util.List audioPackets, java.util.List videoPackets, java.util.List dataPackets, java.util.List audioTCs, java.util.List videoTCs, java.util.List dataTCs, java.util.List dataTypes, long[] currentTCs) Write a bunch of packets to .flv file all at once.

static void	**writePackets**(java.io.OutputStream ds, java.util.List audioPackets, java.util.List videoPackets, java.util.List dataPackets, java.util.List audioTCs, java.util.List videoTCs, java.util.List dataTCs, java.util.List dataTypes, long[] currentTCs, IFLVWriterAdjustTimecode dataPacketTimecodeAdjuster) Write a bunch of packets to .flv file all at once.
static void	**writePackets**(java.io.OutputStream ds, java.util.List audioPackets, java.util.List videoPackets, java.util.List dataPackets, java.util.List audioTCs, java.util.List videoTCs, java.util.List dataTCs, long[] currentTCs) Write a bunch of packets to .flv file all at once.
static void	**writePackets**(java.io.OutputStream ds, java.util.List packetList, long tcOffset) Write audio/video/data packets to an .flv file.
static void	**writeShortHeader**(java.io.DataOutput ds)
static void	**writeShortHeader**(java.io.OutputStream ds) Write just the FLV file header (without the metadata packet)

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

FLV_CHUNKHEADER_ITYPE

public static final int **FLV_CHUNKHEADER_ITYPE**

Heaeder values: packet type
Constant value: **0**

FLV_CHUNKHEADER_ISIZE

public static final int **FLV_CHUNKHEADER_ISIZE**

Header values: packet size
Constant value: **1**

FLV_CHUNKHEADER_ITIMECODE

public static final int **FLV_CHUNKHEADER_ITIMECODE**

Header values: timecode (milliseconds)
Constant value: **2**

FLV_CHUNKHEADER_FIRSTBYTE

public static final int **FLV_CHUNKHEADER_FIRSTBYTE**

Header values: first byte of packet data
Constant value: **3**

FLV_CHUNKHEADER_SECONDBYTE

`public static final int` **`FLV_CHUNKHEADER_SECONDBYTE`**

Header values: second byte of packet data
Constant value: **4**

FLV_CHUNKHEADER_HEADERSIZE

`public static final int` **`FLV_CHUNKHEADER_HEADERSIZE`**

Size of packet header (byte[])
Constant value: **11**

FLV_CHUNKHEADER_BUFFERSIZE

`public static final int` **`FLV_CHUNKHEADER_BUFFERSIZE`**

Size of temporary buffer needed for flv reading (byte[])
Constant value: **13**

FLV_CHUNKHEADER_VALUESIZE

`public static final int` **`FLV_CHUNKHEADER_VALUESIZE`**

Size of header values array (long[])
Constant value: **5**

FLV_UFRAME

`public static final int` **`FLV_UFRAME`**

Unknown video frame type
Constant value: **0**

FLV_KFRAME

`public static final int` **`FLV_KFRAME`**

Key video frame type
Constant value: **1**

FLV_DFRAME

`public static final int` **`FLV_DFRAME`**

D video frame type (partial frame based on key frame)
Constant value: **3**

FLV_PFRAME

`public static final int` **`FLV_PFRAME`**

P video frame type (partial frame based on previous frame)
Constant value: **2**

FLV_TCINDEXAUDIO

`public static final int` **`FLV_TCINDEXAUDIO`**

Constant value: **0**

FLV_TCINDEXVIDEO

`public static final int` **`FLV_TCINDEXVIDEO`**

Constant value: **1**

FLV_TCINDEXDATA

`public static final int` **`FLV_TCINDEXDATA`**

Constant value: **2**

Constructors

FLVUtils

`public` **`FLVUtils`**`()`

Methods

streamCodecToString

`public static String` **`streamCodecToString`**`(int codec)`

Get a printable string representation of the stream codecs defined as IVHost.CODEC_STREAM_*

Parameters:
codec - codec id defined IVHost.CODEC_STREAM_*

Returns:
codec name

audioCodecStringToId

`public static int` **`audioCodecStringToId`**`(String codecString)`

Parse a string to get the codec ID defined by IVHost.CODEC_AUDIO_*

Parameters:
codecString - codec string

Returns:
codec ID

videoCodecToMetaDataString

`public static String` **`videoCodecToMetaDataString`**`(int codec)`

Get a printable string representation of the video codecs defined as IVHost.CODEC_VIDEO_* as the string used in the onMetaData event

Parameters:
    codec - codec id defined IVHost.CODEC_VIDEO_*

Returns:
    codec name

audioCodecToMetaDataString

`public static String ` **`audioCodecToMetaDataString`**`(int codec)`

Get a printable string representation of the audio codecs defined as IVHost.CODEC_AUDIO_* as the string used in the onMetaData event

Parameters:
    codec - codec id defined IVHost.CODEC_AUDIO_*

Returns:
    codec name

audioCodecToString

`public static String ` **`audioCodecToString`**`(int codec)`

Get a printable string representation of the audio codecs defined as IVHost.CODEC_AUDIO_*

Parameters:
    codec - codec id defined IVHost.CODEC_AUDIO_*

Returns:
    codec name

videoCodecStringToId

`public static int ` **`videoCodecStringToId`**`(String codecString)`

Parse a string to get the codec ID defined by IVHost.CODEC_VIDEO_*

Parameters:
    codecString - codec string

Returns:
    codec ID

videoCodecToString

`public static String ` **`videoCodecToString`**`(int codec)`

Get a printable string representation of the video codecs defined as IVHost.CODEC_VIDEO_*

Parameters:
    codec - codec id defined IVHost.CODEC_VIDEO_*

Returns:
    codec name

frameTypeToString

`public static String ` **`frameTypeToString`**`(int frameType)`

getFrameType

```
public static int getFrameType(int[] values)
```

Given the headers values (including first byte of the packet), determine the type of video frame (FLV_*FRAME)

Parameters:
    `values` - header values

Returns:
    type of video frame (FLV_*FRAME)

getFrameType

```
public static int getFrameType(int value)
```

Given the first byte of a video packet, determine the frame type (FLV_*FRAME)

Parameters:
    `value` - first byte of packet

Returns:
    type of video frame (FLV_*FRAME)

getAudioCodec

```
public static int getAudioCodec(int value)
```

Return the codec portion of the first byte of an audio packet. Return should be one of IVHost.CODEC_AUDIO_*

Parameters:
    `value` - first byte of audio packet

Returns:
    codec id

getVideoCodec

```
public static int getVideoCodec(int value)
```

Return the codec portion of the first byte of an video packet. Return should be one of IVHost.CODEC_VIDEO_*

Parameters:
    `value` - first byte of audio packet

Returns:
    codec id

getFrameType

```
public static int getFrameType(byte value)
```

Given the first byte of a video packet, determine the frame type (FLV_*FRAME)

Parameters:
    `value` - first byte of packet

Returns:

       type of video frame (FLV_*FRAME)

---

readChunk

```
public static AMFPacket readChunk(java.io.InputStream is)
```

    Read a packets worth of .flv data from an InputStream and return as an AMFPacket

    Parameters:

        `is` - InputStream

    Returns:

        AMFPacket of data or null if unsuccessful or end of file

---

readChunk

```
public static AMFPacket readChunk(java.io.DataInput is)
```

    Read a packets worth of .flv data from an InputStream and return as an AMFPacket

    Parameters:

        `is` - InputStream

    Returns:

        AMFPacket of data or null if unsuccessful or end of file

---

readPrevChunkHeader

```
public static void readPrevChunkHeader(java.io.RandomAccessFile is,
        byte[] buffer,
        int[] values)
```

    Back up one packet from current position in the file and read the packet header. This includes reading the first byte of the packet data. The file pointer will be positioned at the first byte of the packet data. values[FLV_CHUNKHEADER_ITYPE] will be set to 0x7f if failure or start of file.

    Parameters:

        `is` - RandomAccessFile

        `buffer` - temporary buffer byte[FLV_CHUNKHEADER_BUFFERSIZE]

        `values` - header values long[FLV_CHUNKHEADER_VALUESIZE]

---

readChunkHeader

```
public static void readChunkHeader(java.io.RandomAccessFile is,
        byte[] buffer,
        int[] values)
```

    Read packet header. This includes reading the first byte of the packet data. The file pointer will be positioned at the first byte of the packet data. values[FLV_CHUNKHEADER_ITYPE] will be set to 0x7f if failure or end of file.

    Parameters:

        `is` - RandomAccessFile

        `buffer` - temporary buffer byte[FLV_CHUNKHEADER_BUFFERSIZE]

        `values` - header values long[FLV_CHUNKHEADER_VALUESIZE]

---

readHeader

```
public static boolean readHeader(java.io.InputStream is)
```

>   Read file header. Return true if successful. Basically this just skips first 13 bytes in file.

readHeader

```
public static boolean readHeader(java.io.DataInput is)
```

>   Read file header. Return true if successful. Basically this just skips first 13 bytes in file.

writeShortHeader

```
public static void writeShortHeader(java.io.OutputStream ds)
```

>   Write just the FLV file header (without the metadata packet)

>   **Parameters:**
>   >   ds - OutputStream

writeShortHeader

```
public static void writeShortHeader(java.io.DataOutput ds)
```

writeHeader

```
public static void writeHeader(java.io.OutputStream ds,
        double duration,
        java.util.Map extraMetadata)
```

>   Write file header including onMetaData packet.

>   **Parameters:**
>   >   ds - OutputStream
>   >   duration - duration of .flv file in seconds
>   >   extraMetadata - Map of name/value pairs of metadata that will be appended to the onMetaData block

writeHeader

```
public static void writeHeader(java.io.OutputStream ds,
        double duration,
        int audiocodecid,
        int videocodecid,
        String createdBy,
        java.util.Map extraMetadata)
```

Write file header including onMetaData packet.

With this method you can provide a Map of metadata to write to the file. This map can include a mixture of simple types like: int, long, String, boolean. These types will be wrapped in AMFData classes before they are written to the file. This map can also contain AMFData items. For example if you wanted to insert and array of **cuePoints** the code would look like:

```
Map extraMetadata = new HashMap();


AMFDataArray amfArray = new AMFDataArray();
for(int i=0;i
```

Parameters:
    `ds` - OutputStream
    `duration` - duration of .flv file in seconds
    `audiocodecid` - audio codec ID see IVHost.CODEC_AUDIO_* (-1 for now audio)
    `videocodecid` - video codec ID see IVHost.CODEC_VIDEO_* (-1 for now video)
    `createdBy` - created by string (null for empty)
    `extraMetadata` - Map of name/value pairs of metadata that will be appended to the onMetaData block

writeChunk

```
public static void writeChunk(java.io.OutputStream ds,
        java.nio.ByteBuffer data,
        int size,
        long timecode,
        byte type)
```

Write a packets worth of data.

Parameters:
    `ds` - OutputStream
    `data` - packet data
    `size` - size of the packet
    `timecode` - timecode (milliseconds)
    `type` - type of packet IVHost.CONTENTTYPE_*

writeChunk

```
public static void writeChunk(java.io.DataOutput ds,
        java.nio.ByteBuffer data,
        int size,
        long timecode,
        byte type)
```

interleavePackets

```
public static java.util.List interleavePackets(java.util.List audioPackets,
        java.util.List videoPackets,
        java.util.List dataPackets,
        java.util.List audioTCs,
        java.util.List videoTCs,
        java.util.List dataTCs,
        long[] currentTCs)
```

This is a utility function primarily used for IMediaWriters. It is a way of taking the discrete audio/video/data packets and timecodes and interleaving them into a single list of AMFPacket objects. The currentTCs array is an array of longs containing the last timecode for each of the packet types FLV_TCINDEX* (long[3]). This array will be used to calculate the absolute timecode for a given packet. For example if the relative timecode for an audio packet is 26 and the currentTCs value for the audio channel is 1003 then the absolute timecode for that packet will be 1029. The currentTCs array will be updated after this call to reflect the absolute timecode of the last packet processed of each type.

Parameters:
    `audioPackets` - list of audio packets (ByteBuffer)

    `videoPackets` - list of video packets (ByteBuffer)

    `dataPackets` - list of data packets (ByteBuffer)

    `audioTCs` - list of relative audio timecodes (Long)

    `videoTCs` - list of relative video timecodes (Long)

    `dataTCs` - list of relative data timecodes (Long)

    `currentTCs` - array of longs containing last TCs written for each packet type FLV_TCINDEX* (long[3]). Last timecode written for each packet type wil be returned in this same array.

Returns:
    List of AMFPacket objects sorted by timecodes

interleavePackets

```
public static java.util.List interleavePackets(java.util.List audioPackets,
        java.util.List videoPackets,
        java.util.List dataPackets,
        java.util.List audioTCs,
        java.util.List videoTCs,
        java.util.List dataTCs,
        java.util.List dataTypes,
        long[] currentTCs)
```

This is a utility function primarily used for IMediaWriters. It is a way of taking the discrete audio/video/data packets and timecodes and interleaving them into a single list of AMFPacket objects. The currentTCs array is an array of longs containing the last timecode for each of the packet types FLV_TCINDEX* (long[3]). This array will be used to calculate the absolute timecode for a given packet. For example if the relative timecode for an audio packet is 26 and the currentTCs value for the audio channel is 1003 then the absolute timecode for that packet will be 1029. The currentTCs array will be updated after this call to reflect the absolute timecode of the last packet processed of each type.

Parameters:
    `audioPackets` - list of audio packets (ByteBuffer)

    `videoPackets` - list of video packets (ByteBuffer)

    `dataPackets` - list of data packets (ByteBuffer)

    `audioTCs` - list of relative audio timecodes (Long)

    `videoTCs` - list of relative video timecodes (Long)

    `dataTCs` - list of relative data timecodes (Long)

    `dataTypes` - list of integer packets types (IVHost.CONTENTTYPE_DATA0, IVHost.CONTENTTYPE_DATA3) - if null assumed to be IVHost.CONTENTTYPE_DATA0

    `currentTCs` - array of longs containing last TCs written for each packet type FLV_TCINDEX* (long[3]). Last timecode written for each packet type wil be returned in this same array.

Returns:
    List of AMFPacket objects sorted by timecodes

writePackets

```
public static void writePackets(java.io.OutputStream ds,
        java.util.List packetList,
        long tcOffset)
```

Write audio/video/data packets to an .flv file. They will be written in the packetList order.

Parameters:
 ds - OutputStream
 packetList - List of AMFPacket objects
 tcOffset - timecode offset

writePackets

```
public static void writePackets(java.io.OutputStream ds,
        java.util.List audioPackets,
        java.util.List videoPackets,
        java.util.List dataPackets,
        java.util.List audioTCs,
        java.util.List videoTCs,
        java.util.List dataTCs,
        long[] currentTCs)
```

Write a bunch of packets to .flv file all at once. The packets will be sorted by timecode as written

Parameters:
 ds - OutputStream
 audioPackets - list of audio packets (ByteBuffer)
 videoPackets - list of video packets (ByteBuffer)
 dataPackets - list of data packets (ByteBuffer)
 audioTCs - list of relative audio timecodes (Long)
 videoTCs - list of relative video timecodes (Long)
 dataTCs - list of relative data timecodes (Long)
 currentTCs - array of longs containing last TCs written for each packet type FLV_TCINDEX* (long[3]). Last timecode written for each packet type wil be returned in this same array.

writePackets

```
public static void writePackets(java.io.OutputStream ds,
        java.util.List audioPackets,
        java.util.List videoPackets,
        java.util.List dataPackets,
        java.util.List audioTCs,
        java.util.List videoTCs,
        java.util.List dataTCs,
        java.util.List dataTypes,
        long[] currentTCs)
```

Write a bunch of packets to .flv file all at once. The packets will be sorted by timecode as written

Parameters:
 ds - OutputStream
 audioPackets - list of audio packets (ByteBuffer)
 videoPackets - list of video packets (ByteBuffer)
 dataPackets - list of data packets (ByteBuffer)
 audioTCs - list of relative audio timecodes (Long)
 videoTCs - list of relative video timecodes (Long)
 dataTCs - list of relative data timecodes (Long)
 dataTypes - list of integer packets types (IVHost.CONTENTTYPE_DATA0, IVHost.CONTENTTYPE_DATA3) - if null assumed to be IVHost.CONTENTTYPE_DATA0

currentTCs - array of longs containing last TCs written for each packet type FLV_TCINDEX* (long[3]). Last timecode written for each packet type wil be returned in this same array.

---

writePackets

```
public static void writePackets(java.io.OutputStream ds,
        java.util.List audioPackets,
        java.util.List videoPackets,
        java.util.List dataPackets,
        java.util.List audioTCs,
        java.util.List videoTCs,
        java.util.List dataTCs,
        java.util.List dataTypes,
        long[] currentTCs,
        IFLVWriterAdjustTimecode dataPacketTimecodeAdjuster)
```

Write a bunch of packets to .flv file all at once. The packets will be sorted by timecode as written

Parameters:
ds - OutputStream

audioPackets - list of audio packets (ByteBuffer)

videoPackets - list of video packets (ByteBuffer)

dataPackets - list of data packets (ByteBuffer)

audioTCs - list of relative audio timecodes (Long)

videoTCs - list of relative video timecodes (Long)

dataTCs - list of relative data timecodes (Long)

dataTypes - list of integer packets types (IVHost.CONTENTTYPE_DATA0, IVHost.CONTENTTYPE_DATA3) - if null assumed to be IVHost.CONTENTTYPE_DATA0

currentTCs - array of longs containing last TCs written for each packet type FLV_TCINDEX* (long[3]). Last timecode written for each packet type wil be returned

dataPacketTimecodeAdjuster - class that implements the IFLVWriterAdjustTimecode interface for adjusting timecodes in this same array.

---

adjustFirstPacketTCs

```
public static long adjustFirstPacketTCs(java.util.List audioTCs,
        java.util.List videoTCs,
        java.util.List dataTCs)
```

Align list of timecode for each data type. Assume first entry in each list is absolute timecode. When done lowest entry in three lists will be zero and other lists will be offset accordingly.

Parameters:
audioTCs - list of audio timecodes

videoTCs - list of video timecodes

dataTCs - list of data timecodes

Returns:
lowest of three absolute timecodes

---

writeDuration

```
public static void writeDuration(java.io.File file,
        double duration)
```

Write the duration to an existing .flv file. This routine will hunt through the .flv file for the onMetaData packet and the duration metadata. It will rewrite the value if found. If not found it will do nothing.

Parameters:
file - .flv file

duration - new duration value (seconds)

getLastTC

```
public static long getLastTC(java.io.File file)
```

Get the duration of an .flv file. This routine will find the onMetaData packet and the duration metadata and return the value. If not found it will read the last packet in the file and return the timecode of that packet.

Parameters:
> file

Returns:
> duration (milliseconds)

isVideoKeyFrame

```
public static boolean isVideoKeyFrame(AMFPacket packet)
```

Returns true if the packet is a video key frame

Parameters:
> packet - packet

Returns:
> true if is video key frame

isVideoCodecConfig

```
public static boolean isVideoCodecConfig(AMFPacket packet)
```

Returns true if the packet is a video codec config packet

Parameters:
> packet

Returns:
> true if the packet is a video codec config packet

isAudioCodecConfig

```
public static boolean isAudioCodecConfig(AMFPacket packet)
```

Returns true if the packet is a video codec config packet

Parameters:
> packet

Returns:
> true if the packet is a video codec config packet

getAudioMP3Layer

```
public static int getAudioMP3Layer(AMFPacket packet)
```

Audio marked as MP3 is really MPEG1 Layer 1-3. Only MPEG1 Layer 3 is truely MP3. This function will return the layer number for this packet.

Parameters:
> packet - amf packet

Returns:
>   layer number

---

getAudioCodec

`public static int **getAudioCodec**(`AMFPacket` packet)`

>   Get the codec id for this audio packet. Returns IVHost.CODEC_AUDIO_UNKNOWN is unknown or not audio packet

>   **Parameters:**
>>   `packet` - packet

>   **Returns:**
>>   codec id IVHost.CODEC_AUDIO_*

---

getVideoCodec

`public static int **getVideoCodec**(`AMFPacket` packet)`

>   Get the codec id for this video packet. Returns IVHost.CODEC_VIDEO_UNKNOWN is unknown or not video packet

>   **Parameters:**
>>   `packet` - packet

>   **Returns:**
>>   codec id IVHost.CODEC_VIDEO_*

---

getVideoFrameType

`public static int **getVideoFrameType**(`AMFPacket` packet)`

---

getVideoTimecodeOffset

`public static int **getVideoTimecodeOffset**(`AMFPacket` packet)`

>   Get the timecode offset in milliseconds between the PTS and DTS for this frame.

>   **Parameters:**
>>   `packet` - AMFPacket

>   **Returns:**
>>   timecode offset in milliseconds (can be negative)

---

getVideoTimecodeOffset

`public static int **getVideoTimecodeOffset**(byte[] buffer)`

>   Get the timecode offset in milliseconds between the PTS and DTS for this frame.

>   **Parameters:**
>>   `buffer` - video packet buffer

>   **Returns:**
>>   timecode offset in milliseconds (can be negative)

isVideoKeyFrame

```
public static boolean isVideoKeyFrame(java.nio.ByteBuffer buffer)
```

Returns true if the packet is a video key frame

Parameters:
buffer - packet data (only need first two bytes of data)

Returns:
true if is video key frame

isVideoKeyFrame

```
public static boolean isVideoKeyFrame(byte[] buffer)
```

Returns true if the packet is a video key frame

Parameters:
buffer - packet data (only need first two bytes of data)

Returns:
true if is video key frame

isVideoKeyFrame

```
public static boolean isVideoKeyFrame(int[] chunkHeaderValues)
```

Returns true if the packet is a video key frame

Parameters:
chunkHeaderValues - chunk header values returned by FLVUtils.readChunkHeader

Returns:
true if is video key frame

updateOnCuePointTimecode

```
public static AMFPacket updateOnCuePointTimecode(AMFPacket packet,
        long timecode)
```

updateOnCuePointTimecode

```
public static java.nio.ByteBuffer updateOnCuePointTimecode(java.nio.ByteBuffer data,
        int dataType,
        long timecode)
```

isOnMetadataPacket

```
public static boolean isOnMetadataPacket(AMFPacket packet)
```

Returns true if packet is onMetaData or [@setDataFrame, onMetaData] data packet.

Parameters:

packet - packet

Returns:
true if onMetaData packet

getOnMetadataData

public static OnMetadataBasic **getOnMetadataData**(AMFPacket metaDataPacket)

com.wowza.util
Class HTTPUtils

```
java.lang.Object
    │
    +-com.wowza.util.HTTPUtils
```

public class **HTTPUtils**
extends Object

HTTPUtils: utility class for making http requests.

Field Summary

public static final	COOKIEDATEFORMAT

Constructor Summary

public	HTTPUtils()

Method Summary

static String	assembleQueryStr(java.util.Map queryMap) Assemble a map of name value pairs into a single query string.
static String	formatDeleteCookie(String name, String path, String domain) Formats a cookie header value that is in the past to delete a cookie
static String	formatSetCookie(String name, String value, int timeoffset, String path, String domain, boolean isSecure) Format a HTTP header Set-Cookie value
static byte[]	HTTPRequestToByteArray(String inUrl, String method, String data, java.util.Map headers) Make a HTTP request and return the result as a byte array
static byte[]	HTTPRequestToByteArray(String inUrl, String method, String data, java.util.Map inHeaders, java.util.Map outHeaders, long dataLimit) Make a HTTP request and return the result as a byte array
static boolean	HTTPRequestToFile(java.io.File file, String inUrl, String method, String data, java.util.List headers) Make a HTTP request and have the result saved to a file.
static java.util.List	splitCookie(String str) Breaks Cookies header value into a list of name/value pairs.
static String[]	splitPragmas(String str) Split HTTP Pragma values at commas that separate values.
static java.util.Map	splitQueryStr(String queryStr) Split a query string into a map and URL decode the values

static String	[statusCodeToStr](int statusCode) Convert an HTTP status code to a string

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

COOKIEDATEFORMAT

```
public static final org.apache.commons.lang.time.FastDateFormat COOKIEDATEFORMAT
```

Constructors

HTTPUtils

```
public HTTPUtils()
```

Methods

HTTPRequestToFile

```
public static boolean HTTPRequestToFile(java.io.File file,
         String inUrl,
         String method,
         String data,
         java.util.List headers)
```

Make a HTTP request and have the result saved to a file.

Parameters:
`file` - destination
`inUrl` - url (will work with http and https)
`method` - method (POST, GET)
`data` - post data
`headers` - map of headers (Content-type...)

Returns:
true if successful

HTTPRequestToByteArray

```
public static byte[] HTTPRequestToByteArray(String inUrl,
         String method,
         String data,
         java.util.Map headers)
```

Make a HTTP request and return the result as a byte array

Parameters:
`inUrl` - url (will work with http and https)

method - method (POST, GET)
data - post data
headers - map of headers (Content-type...)

Returns:

byte array of result or null if not successful

HTTPRequestToByteArray

```
public static byte[] HTTPRequestToByteArray(String inUrl,
        String method,
        String data,
        java.util.Map inHeaders,
        java.util.Map outHeaders,
        long dataLimit)
```

Make a HTTP request and return the result as a byte array

Parameters:

inUrl - url (will work with http and https)
method - method (POST, GET)
data - data
inHeaders - map of headers (Content-type...)
outHeaders - response headers
dataLimit - maximum number of bytes to read, zero for no limit

Returns:

byte array of result or null if not successful

assembleQueryStr

```
public static String assembleQueryStr(java.util.Map queryMap)
```

Assemble a map of name value pairs into a single query string. URL encode query string values.

Parameters:

queryMap - name value pairs

Returns:

query string

splitQueryStr

```
public static java.util.Map splitQueryStr(String queryStr)
```

Split a query string into a map and URL decode the values

Parameters:

queryStr - query string

Returns:

map of name value pairs

splitPragmas

```
public static String[] splitPragmas(String str)
```

Split HTTP Pragma values at commas that separate values. It deals with internal commas in strings. Example:

```
no-cache, client-id=1485578017, features="seekable,stridable", timeout=6
```

Result:

```
no-cache
client-id=1485578017
features="seekable,stridable"
timeout=6
```

Parameters:
str - Pragma value

Returns:
array of strings broken at commas

---

splitCookie

```
public static java.util.List splitCookie(String str)
```

Breaks Cookies header value into a list of name/value pairs. The Cookie string: "name1=value1;name2;name1=value3" is returned as: List(item({"name1", "value1"}), item("name2", null), item("name1", "value3"))

Parameters:
str - input string

Returns:
List of name value pairs

---

formatDeleteCookie

```
public static String formatDeleteCookie(String name,
        String path,
        String domain)
```

Formats a cookie header value that is in the past to delete a cookie

Parameters:
name - variable name
path - path
domain - domain

Returns:
formatted cookie string

---

formatSetCookie

```
public static String formatSetCookie(String name,
        String value,
        int timeoffset,
        String path,
        String domain,
        boolean isSecure)
```

Format a HTTP header Set-Cookie value

Parameters:
name - variable name
value - variable value - null if no value
timeoffset - expiration time in seconds
path - cookie path
domain - cookie domain
isSecure - is cookie secure

Returns:
formatted cookie string

statusCodeToStr

```
public static String statusCodeToStr(int statusCode)
```

Convert an HTTP status code to a string

Parameters:
statusCode - HTTP status code

Returns:
string

com.wowza.util
Interface IBandwidthThrottler

public interface **IBandwidthThrottler**
extends

Method Summary

long	[getByteAllocation](long request) Requests bytes from the bandwidth throttler interface.

Methods

getByteAllocation

public long **getByteAllocation**(long request)

Requests bytes from the bandwidth throttler interface. Return value is the number of bytes allocated

Parameters:
   request - request number of bytes

Returns:
   allocated number of bytes

com.wowza.util
Interface IFileProcess

public interface **IFileProcess**
extends

Used by FileUtils.traverseDirectory

Method Summary

void	[onFile](java.io.File file) Triggered for each file encountered in FileUtils.traverseDirectory

Methods

onFile

public void **onFile**(java.io.File file)

Triggered for each file encountered in FileUtils.traverseDirectory

Parameters:
file - file descriptor

com.wowza.util
Class IOPerformanceCounter

```
java.lang.Object
    │
    +-com.wowza.util.IOPerformanceCounter
```

public class **IOPerformanceCounter**
extends Object

IOPerformanceCounter: data object that tracks the server performance of a particular component (client, vHost, server, stream). It tracks bytes and messages sent to and from the object being measured.

Constructor Summary

public	**IOPerformanceCounter**() Create an empty performance counter.

Method Summary

void	**add**(IOPerformanceCounter value) Add (value) to this counter.
void	**addDifference**(IOPerformanceCounter current, IOPerformanceCounter last) Add the result of (current-last) to this counter.
void	**clear**() Clear or reset this counter back to zero.
IOPerformanceCounter	**clone**() Create a deep clone (copy) if this object.
void	**doSet**(IOPerformanceCounter value) Set this object to value.
void	**dummy**()
long	**getFileInBytes**() Get file in bytes
double	**getFileInBytesRate**() Get estimate of file byte-in byte rate.
long	**getFileOutBytes**() Get file byte-out bytes (not implemented)
double	**getFileOutBytesRate**() Get estimate of file byte-out message byte rate (not implemented).
long	**getMessagesInBytes**() Get byte-in bytes
double	**getMessagesInBytesRate**() Get estimate of byte-in message byte rate.

long	**getMessagesInCount**() Get byte-in message count	
long	**getMessagesInCountRate**() Get estimate of byte-in message count rate.	
long	**getMessagesLossBytes**() Get byte-loss bytes	
double	**getMessagesLossBytesRate**() Get estimate of byte-loss message byte rate.	
long	**getMessagesLossCount**() Get byte-loss message count	
long	**getMessagesLossCountRate**() Get estimate of byte-loss message count rate.	
long	**getMessagesOutBytes**() Get byte-out bytes	
double	**getMessagesOutBytesRate**() Get estimate of byte-out message byte rate.	
long	**getMessagesOutCount**() Get byte-out message count	
long	**getMessagesOutCountRate**() Get estimate of byte-out message count rate.	
long	**incrementBytesIn**(long bytes) Increment bytes-in by bytes and increment message count by 0.	
long	**incrementBytesLoss**(long bytes) Increment bytes-loss by bytes and increment message count by 0.	
long	**incrementBytesOut**(long bytes) Increment bytes-out by bytes and increment message count by 0.	
long	**incrementFileIn**(long bytes) Increment file-bytes-in by bytes.	
long	**incrementFileOut**(long bytes) Increment file bytes-out by bytes.	
long	**incrementMessagesIn**() Increment byte-in message count by 1.	
long	**incrementMessagesIn**(long bytes) Increment bytes-in by bytes and increment message count by 1.	
long	**incrementMessagesIn**(long bytes, long count) Increment bytes-in by bytes and message count by count.	
long	**incrementMessagesLoss**() Increment byte-loss message count by 1.	
long	**incrementMessagesLoss**(long bytes) Increment bytes-loss by bytes and increment message count by 1.	

long	`incrementMessagesLoss(long bytes, long count)` 　　Increment bytes-loss by bytes and message count by count.	
long	`incrementMessagesOut()` 　　Increment byte-out message count by 1.	
long	`incrementMessagesOut(long bytes)` 　　Increment bytes-out by bytes and increment message count by 1.	
long	`incrementMessagesOut(long bytes, long count)` 　　Increment bytes-out by bytes and message count by count.	
boolean	`isDebugLog()`	
void	`setDebugLog(boolean debugLog)`	

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Constructors

IOPerformanceCounter

public **IOPerformanceCounter**()

　　Create an empty performance counter.

Methods

clone

public `IOPerformanceCounter` **clone**()

　　Create a deep clone (copy) if this object.

addDifference

public void **addDifference**(`IOPerformanceCounter` current,
　　　　`IOPerformanceCounter` last)

　　Add the result of (current-last) to this counter. Used internally to efficiently track object performance on a timer.

Parameters:
　　　　`current` - current counter
　　　　`last` - last counter

clear

public void **clear**()

　　Clear or reset this counter back to zero.

add

`public void **add**(`[`IOPerformanceCounter`](#)` value)`

> Add (value) to this counter.

> ### Parameters:
> > `value` - value to add

---

doSet

`public void **doSet**(`[`IOPerformanceCounter`](#)` value)`

> Set this object to value.

> ### Parameters:
> > `value` - value to set

---

incrementMessagesIn

`public long **incrementMessagesIn**(long bytes)`

> Increment bytes-in by bytes and increment message count by 1.

> ### Parameters:
> > `bytes` - number of bytes

> ### Returns:
> > bytes-in bytes

---

incrementFileIn

`public long **incrementFileIn**(long bytes)`

> Increment file-bytes-in by bytes.

> ### Parameters:
> > `bytes` - number of bytes

> ### Returns:
> > bytes-in bytes

---

incrementMessagesIn

`public long **incrementMessagesIn**(long bytes,`
`        long count)`

> Increment bytes-in by bytes and message count by count.

> ### Parameters:
> > `bytes` - number of bytes
> > `count` - number of messages

> ### Returns:
> > bytes-in bytes

---

incrementBytesIn

```
public long incrementBytesIn(long bytes)
```

> Increment bytes-in by bytes and increment message count by 0.

> **Parameters:**
>> bytes

> **Returns:**
>> bytes-in bytes

incrementMessagesIn

```
public long incrementMessagesIn()
```

> Increment byte-in message count by 1.

> **Returns:**
>> bytes-in message count

incrementMessagesOut

```
public long incrementMessagesOut(long bytes)
```

> Increment bytes-out by bytes and increment message count by 1.

> **Parameters:**
>> bytes - number of bytes

> **Returns:**
>> bytes-out bytes

incrementFileOut

```
public long incrementFileOut(long bytes)
```

> Increment file bytes-out by bytes.

> **Parameters:**
>> bytes - number of bytes

> **Returns:**
>> bytes-out bytes

incrementMessagesLoss

```
public long incrementMessagesLoss(long bytes)
```

> Increment bytes-loss by bytes and increment message count by 1.

> **Parameters:**
>> bytes - number of bytes

> **Returns:**
>> bytes-loss bytes

incrementMessagesOut

```
public long incrementMessagesOut(long bytes,
        long count)
```

Increment bytes-out by bytes and message count by count.

Parameters:
bytes - number of bytes
count - number of messages

Returns:
bytes-out bytes

incrementMessagesLoss

```
public long incrementMessagesLoss(long bytes,
        long count)
```

Increment bytes-loss by bytes and message count by count.

Parameters:
bytes - number of bytes
count - number of messages

Returns:
bytes-loss bytes

incrementBytesOut

```
public long incrementBytesOut(long bytes)
```

Increment bytes-out by bytes and increment message count by 0.

Parameters:
bytes

Returns:
bytes-out bytes

incrementBytesLoss

```
public long incrementBytesLoss(long bytes)
```

Increment bytes-loss by bytes and increment message count by 0.

Parameters:
bytes

Returns:
bytes-loss bytes

incrementMessagesOut

```
public long incrementMessagesOut()
```

Increment byte-out message count by 1.

Returns:

bytes-out message count

incrementMessagesLoss

```
public long incrementMessagesLoss()
```

Increment byte-loss message count by 1.

Returns:
bytes-loss message count

getMessagesInCount

```
public long getMessagesInCount()
```

Get byte-in message count

Returns:
byte-in message count

getMessagesOutCount

```
public long getMessagesOutCount()
```

Get byte-out message count

Returns:
byte-out message count

getMessagesLossCount

```
public long getMessagesLossCount()
```

Get byte-loss message count

Returns:
byte-loss message count

getMessagesInBytes

```
public long getMessagesInBytes()
```

Get byte-in bytes

Returns:
byte-in bytes

getFileInBytes

```
public long getFileInBytes()
```

Get file in bytes

Returns:
file in bytes

getMessagesOutBytes

`public long getMessagesOutBytes()`

> Get byte-out bytes

> **Returns:**
> > byte-out bytes

getFileOutBytes

`public long getFileOutBytes()`

> Get file byte-out bytes (not implemented)

> **Returns:**
> > byte-out bytes

getMessagesLossBytes

`public long getMessagesLossBytes()`

> Get byte-loss bytes

> **Returns:**
> > byte-loss bytes

getMessagesInCountRate

`public long getMessagesInCountRate()`

> Get estimate of byte-in message count rate.

> **Returns:**
> > estimate of byte-in message count rate (messages per second)

getMessagesOutCountRate

`public long getMessagesOutCountRate()`

> Get estimate of byte-out message count rate.

> **Returns:**
> > estimate of byte-out message count rate (messages per second)

getMessagesLossCountRate

`public long getMessagesLossCountRate()`

> Get estimate of byte-loss message count rate.

> **Returns:**
> > estimate of byte-loss message count rate (messages per second)

getMessagesInBytesRate

`public double getMessagesInBytesRate()`

Get estimate of byte-in message byte rate.

>Returns:
>> estimate of byte-in message byte rate (bytes per second)

getFileInBytesRate

`public double getFileInBytesRate()`

Get estimate of file byte-in byte rate.

>Returns:
>> estimate of file byte-in byte rate (bytes per second)

getMessagesOutBytesRate

`public double getMessagesOutBytesRate()`

Get estimate of byte-out message byte rate.

>Returns:
>> estimate of byte-out message byte rate (bytes per second)

getFileOutBytesRate

`public double getFileOutBytesRate()`

Get estimate of file byte-out message byte rate (not implemented).

>Returns:
>> estimate of file byte-out message byte rate (bytes per second)

getMessagesLossBytesRate

`public double getMessagesLossBytesRate()`

Get estimate of byte-loss message byte rate.

>Returns:
>> estimate of byte-loss message byte rate (bytes per second)

dummy

`public void dummy()`

isDebugLog

`public boolean isDebugLog()`

setDebugLog

`public void setDebugLog(boolean debugLog)`

com.wowza.util
Class MD5DigestUtils

```
java.lang.Object
    └─com.wowza.util.MD5DigestUtils
```

public class **MD5DigestUtils**
extends Object

MD5DigestUtils: MD5 hash utilities.

Field Summary

protected static	md5Digest
protected static	md5Lock

Constructor Summary

public	MD5DigestUtils()

Method Summary

static String	generateAuth(String method, String uri, String username, String password, String realm, String nonce) Generate an HTTP authorization response
static String	generateAuth(String a2Hash, String a1Hash, String realm, String nonce, String qop, String nonceCount, String cnonce) Generate an HTTP authorization response
static String	generateAuth(String method, String uri, String a1Hash, String realm, String nonce, String qop, String nonceCount, String cnonce) Generate an HTTP authorization response
static String	generateAuth(String method, String uri, String username, String password, String realm, String nonce, String qop, String nonceCount, String cnonce) Generate an HTTP authorization response
static String	generateAuthHTTP(String method, String uri, String username, String password, String realm, String nonce, String qop, String nonceCount, String cnonce) Generate an HTTP authorization response
static String	generateHash(String value) Generate MD5 hash
static byte[]	generateHashBytes(byte[] value) Generate MD5 hash
static byte[]	generateHashBytes(String value) Generate MD5 hash

Methods inherited from class `java.lang.Object`
`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

md5Digest

`protected static java.security.MessageDigest` **`md5Digest`**

md5Lock

`protected static java.lang.Object` **`md5Lock`**

Constructors

MD5DigestUtils

`public` **`MD5DigestUtils`**`()`

Methods

generateAuth

```
public static String generateAuth(String method,
        String uri,
        String username,
        String password,
        String realm,
        String nonce)
```

Generate an HTTP authorization response

Parameters:
method - method
uri - URI
username - username
password - password
realm - realm
nonce - nonce

Returns:
auth response

generateAuth

```
public static String generateAuth(String method,
        String uri,
        String username,
        String password,
        String realm,
        String nonce,
        String qop,
        String nonceCount,
        String cnonce)
```

Generate an HTTP authorization response

Parameters:
method - method
uri - URI
username - username
password - password
realm - realm
nonce - nonce
qop - qop
nonceCount - nonceCount
cnonce - cnonce

Returns:
auth response

generateAuthHTTP

```
public static String generateAuthHTTP(String method,
        String uri,
        String username,
        String password,
        String realm,
        String nonce,
        String qop,
        String nonceCount,
        String cnonce)
```

Generate an HTTP authorization response

Parameters:
method - method
uri - URI
username - username
password - password
realm - realm
nonce - nonce
qop - qop
nonceCount - nonceCount
cnonce - cnonce

Returns:
response

generateAuth

```
public static String generateAuth(String method,
        String uri,
        String a1Hash,
        String realm,
        String nonce,
        String qop,
        String nonceCount,
        String cnonce)
```

Generate an HTTP authorization response

Parameters:
method - method
uri - URI
a1Hash - a1Hash
realm - realm
nonce - nonce
qop - qop
nonceCount - nonceCount
cnonce - cnonce

Returns:
auth

generateAuth

```
public static String generateAuth(String a2Hash,
        String a1Hash,
        String realm,
        String nonce,
        String qop,
        String nonceCount,
        String cnonce)
```

Generate an HTTP authorization response

Parameters:
a2Hash - a2Hash
a1Hash - a1Hash
realm - realm
nonce - nonce
qop - qop
nonceCount - nonceCount
cnonce - cnonce

Returns:
auth

generateHashBytes

```
public static byte[] generateHashBytes(byte[] value)
```

Generate MD5 hash

Parameters:
value - byte array to hash

Returns:
byte array result

generateHashBytes

```
public static byte[] generateHashBytes(String value)
```

Generate MD5 hash

Parameters:
value - in string converted to byte array (UTF-8)

Returns:
byte array result

generateHash

```
public static String generateHash(String value)
```

Generate MD5 hash

Parameters:
value - in string converted to byte array (UTF-8)

Returns:
hash as binhex string

com.wowza.util
Class MediaUtils

```
java.lang.Object
    │
    +-com.wowza.util.MediaUtils
```

public class **MediaUtils**
extends Object

MediaUtils: Media utilities.

Field Summary

public static final	CODECSTR_FORMAT_VIDEO_POSTIOS4
	Value: **2**
public static final	CODECSTR_FORMAT_VIDEO_PREIOS4
	Value: **1**
public static final	CODECSTR_FORMAT_VIDEO_UNKNOWN
	Value: **0**

Constructor Summary

public	MediaUtils()

Method Summary

static String	audioCodecTypeToString(int codecType)
	Audio codec ID to string.
static String	videoCodecTypeToString(int codecType)
	Video codec ID to string.

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

CODECSTR_FORMAT_VIDEO_UNKNOWN

public static final int **CODECSTR_FORMAT_VIDEO_UNKNOWN**

Constant value: **0**

CODECSTR_FORMAT_VIDEO_PREIOS4

`public static final int` **`CODECSTR_FORMAT_VIDEO_PREIOS4`**

Constant value: **1**

CODECSTR_FORMAT_VIDEO_POSTIOS4

`public static final int` **`CODECSTR_FORMAT_VIDEO_POSTIOS4`**

Constant value: **2**

Constructors

MediaUtils

`public` **`MediaUtils`**`()`

Methods

audioCodecTypeToString

`public static String` **`audioCodecTypeToString`**`(int codecType)`

Audio codec ID to string. See IVHost.CODEC_AUDIO_*

Parameters:
codecType - codec id. See IVHost.CODEC_AUDIO_*

Returns:
codec string

videoCodecTypeToString

`public static String` **`videoCodecTypeToString`**`(int codecType)`

Video codec ID to string. See IVHost.CODEC_VIDEO_*

Parameters:
codecType - codec id. See IVHost.CODEC_VIDEO_*

Returns:
codec string

com.wowza.util
Class NetworkUtils

```
java.lang.Object
    │
    +-com.wowza.util.NetworkUtils
```

public class **NetworkUtils**
extends Object

NetworkUtils: Networking utilities.

Constructor Summary

public	NetworkUtils()

Method Summary

static boolean	isAddressMulticast(String IpAddress) Returns true if IP address is multicast address

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

NetworkUtils

public **NetworkUtils**()

Methods

isAddressMulticast

public static boolean **isAddressMulticast**(String IpAddress)

> Returns true if IP address is multicast address

Parameters:
> IpAddress - IP address

Returns:
> true if IP address is multicast address

com.wowza.util
Interface NoMBean

public interface **NoMBean**
extends Annotation

Annotation for excluding a method from the JMX interface. Below is an example of how it would be used

```
import com.wowza.util.NoMBean;
import com.wowza.wms.module.*;

class MyClass extends ModuleBase
{
        @NoMBean public void myMethod()
        {
        }
}
```

Methods inherited from interface `java.lang.annotation.Annotation`
`annotationType, equals, hashCode, toString`

com.wowza.util
Class StringUtils

```
java.lang.Object
    └─com.wowza.util.StringUtils
```

public class **StringUtils**
extends Object

StringUtils: utility class of String utilities.

Constructor Summary

public	**StringUtils**()

Method Summary

static boolean	**equals**(String s1, String s2) Checks if 2 strings are equals, accounting for null cases.
static String	**intToHexStr**(int value, int strLen)
static String	**intToStr**(int value, int strLen)
static boolean	**isEmpty**(String s) Checks if string is empty, handling null String case.
static int	**length**(String s) Returns string length, handling null String case as length of 0.
static String	**longToHexStr**(long value, int strLen)
static String	**longToStr**(long value, int strLen)
static String	**stampToString**(long stamp) Convert a duration (milliseconds) to a formatted string.
static String	**stampToStringNoUnits**(long stamp) Convert a duration (milliseconds) to a formatted string.
static long	**stringToMilliseconds**(String stamp) Convert a hh:mm:ss.SSS string to milliseconds
static String	**toStringList**(java.util.List strings) Convert list of Strings to comma-separated string
static String	**toStringList**(WMSProperties properties) Convert properties to comma-separated string
static String	**valueOf**(String s) Returns string, handling null String case as "".

Methods inherited from class `java.lang.Object`
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

StringUtils

public **StringUtils**()

Methods

intToStr

public static String **intToStr**(int value,
        int strLen)

intToHexStr

public static String **intToHexStr**(int value,
        int strLen)

longToStr

public static String **longToStr**(long value,
        int strLen)

longToHexStr

public static String **longToHexStr**(long value,
        int strLen)

isEmpty

public static boolean **isEmpty**(String s)

Checks if string is empty, handling null String case.

Parameters:
s

Returns:
false is string is null or "", true otherwise

length

```
public static int length(String s)
```

Returns string length, handling null String case as length of 0.

Parameters:
s

Returns:
0 if string is null, or length of string.

valueOf

```
public static String valueOf(String s)
```

Returns string, handling null String case as "".

Parameters:
s

Returns:
"" if string is null, or string value.

stampToString

```
public static String stampToString(long stamp)
```

Convert a duration (milliseconds) to a formatted string.

Parameters:
stamp - duration (milliseconds)

Returns:
formatted string (example: 3 days 4 minutes 1 seconds)

stampToStringNoUnits

```
public static String stampToStringNoUnits(long stamp)
```

Convert a duration (milliseconds) to a formatted string.

Parameters:
stamp - duration (milliseconds)

Returns:
formatted string (example: 03:04:01.123 hours:minutes:seconds.miliseconds)

stringToMilliseconds

```
public static long stringToMilliseconds(String stamp)
```

Convert a hh:mm:ss.SSS string to milliseconds

Parameters:
stamp - string (hours:minutes:seconds.miliseconds)

Returns:
milliseconds, -1 is parse failed

equals

```
public static boolean equals(String s1,
          String s2)
```

Checks if 2 strings are equals, accounting for null cases. If both are null, they are considered equal.

Parameters:
s1 - string one
s2 - string 2

Returns:
true is the strings are equal

toStringList

```
public static String toStringList(WMSProperties properties)
```

Convert properties to comma-separated string

Parameters:
properties

Returns:
comma-separated string

toStringList

```
public static String toStringList(java.util.List strings)
```

Convert list of Strings to comma-separated string

Parameters:
strings

Returns:
comma-separated string

com.wowza.util
Class SystemUtils

```
java.lang.Object
    │
    +-com.wowza.util.SystemUtils
```

public class **SystemUtils**
extends Object

Nested Class Summary

class	**SystemUtils.ReplaceItem** SystemUtils.ReplaceItem

Field Summary

public static final	**defaultLocale**
public static final	**defaultTimeZone**
public static final	**gmtTimeZone**
protected static final	**msb0baseTime** Value: **2085978496000**
protected static final	**msb1baseTime** Value: **-2208988800000**

Constructor Summary

public	**SystemUtils**()

Method Summary

static void	**addBouncyCastleSecurityProvider**() Load bouncy castle providers, Internal use.
static String	**expandEnvironmentVariables**(String inValue) Expand system level Java properties in a String in the form ${property-name}
static String	**expandEnvironmentVariables**(String inValue, java.util.Map valueMap) Expand system level Java properties in a String in the form ${property-name}.
static long	**getCpuTime**() Get CPU time in nanoseconds.
static byte[]	**getMACAddress**() Get MAC address of localhost interface (only works on Java 6 or greater)

static long	[getSystemTime](#)()	
	Get system time in nanoseconds.	
static long	[getUserTime](#)()	
	Get user time in nanoseconds.	
static long	[toNTPTime](#)(long t)	
	Convert a timecode value in milliseconds to NTP time	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

defaultTimeZone

`public static final java.util.TimeZone `**`defaultTimeZone`**

gmtTimeZone

`public static final java.util.TimeZone `**`gmtTimeZone`**

defaultLocale

`public static final java.util.Locale `**`defaultLocale`**

msb0baseTime

`protected static final long `**`msb0baseTime`**

Constant value: **2085978496000**

msb1baseTime

`protected static final long `**`msb1baseTime`**

Constant value: **-2208988800000**

Constructors

SystemUtils

`public `**`SystemUtils`**`()`

Methods

expandEnvironmentVariables

```
public static String expandEnvironmentVariables(String inValue)
```

Expand system level Java properties in a String in the form ${property-name}

Parameters:
inValue - string with properties

Returns:
expanded string

expandEnvironmentVariables

```
public static String expandEnvironmentVariables(String inValue,
        java.util.Map valueMap)
```

Expand system level Java properties in a String in the form ${property-name}. You can also pass in a map of name/value pairs that will expand the list of available properties

Parameters:
inValue - string with properties
valueMap - name/value pair map

Returns:
expanded string

getMACAddress

```
public static byte[] getMACAddress()
```

Get MAC address of localhost interface (only works on Java 6 or greater)

Returns:
MAC address of localhost interface

addBouncyCastleSecurityProvider

```
public static void addBouncyCastleSecurityProvider()
```

Load bouncy castle providers, Internal use.

toNTPTime

```
public static long toNTPTime(long t)
```

Convert a timecode value in milliseconds to NTP time

Parameters:
t - timecode value in milliseconds

Returns:
NTP time

getCpuTime

```
public static long getCpuTime()
```

>   Get CPU time in nanoseconds.

getUserTime

```
public static long getUserTime()
```

>   Get user time in nanoseconds.

getSystemTime

```
public static long getSystemTime()
```

>   Get system time in nanoseconds.

```
public static long getCpuTime()
```

com.wowza.util
Class SystemUtils.ReplaceItem

```
java.lang.Object
    |
    +-com.wowza.util.SystemUtils.ReplaceItem
```

public static class **SystemUtils.ReplaceItem**
extends Object

Field Summary

public	end	
public	newValue	
public	start	

Constructor Summary

public	SystemUtils.ReplaceItem(int start, int stop, String newValue)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

start

public int **start**

end

public int **end**

newValue

public java.lang.String **newValue**

Constructors

SystemUtils.ReplaceItem

```
public SystemUtils.ReplaceItem(int start,
                               int stop,
                               String newValue)
```

SystemUtils.ReplaceItem

```
public SystemUtils.ReplaceItem(int start,
                               int stop,
```

com.wowza.util
Class URLUtils

```
java.lang.Object
    │
    +-com.wowza.util.URLUtils
```

public final class **URLUtils**
extends Object

Class to deal with URLs

Constructor Summary

public	[URLUtils](#)()

Method Summary

static String	[appendParamsToUrl](#)(String url, String params) Convenience call to add parameters to a url.
static String	[decodeValue](#)(String val) Wrapper for URLDecoder.decode(val, "UTF-8");
static String	[encodeValue](#)(String val) Wrapper for URLEncoder.encode(val, "UTF-8");
static String	[getParamValue](#)(java.util.Map params, String key) Helper funtion to get single value from multiple value parameter Map
static java.util.Map	[parseQueryStr](#)(String queryString, boolean doDecode) Parse query string part of url into Map of Lists (to support multiple values) of query parameters
static String	[pathToFileURL](#)(String basePath) Convert a path to a url (file://[path])
static String	[urlToId](#)(java.net.URL url) Create a MD5 message digest hash of a url

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

URLUtils

public **URLUtils**()

Methods

pathToFileURL

`public static String `**`pathToFileURL`**`(String basePath)`

Convert a path to a url (file://[path])

Parameters:
basePath - path

Returns:
file url

---

urlToId

`public static String `**`urlToId`**`(java.net.URL url)`

Create a MD5 message digest hash of a url

Parameters:
url - url to hash

Returns:
hashed url

---

appendParamsToUrl

`public static String `**`appendParamsToUrl`**`(String url,`
`        String params)`

Convenience call to add parameters to a url. If already has ? add &.

Parameters:
url - input url
params - parameters in the form param1=val1&param2=val2

Returns:
appended url

---

encodeValue

`public static String `**`encodeValue`**`(String val)`

Wrapper for URLEncoder.encode(val, "UTF-8");

Parameters:
val - value to encode

Returns:
encoded value

---

decodeValue

`public static String `**`decodeValue`**`(String val)`

Wrapper for URLDecoder.decode(val, "UTF-8");

Parameters:
      `val` - value to decode

Returns:
      decoded value

---

parseQueryStr

```
public static java.util.Map parseQueryStr(String queryString,
        boolean doDecode)
```

    Parse query string part of url into Map of Lists (to support multiple values) of query parameters

Parameters:
      `queryString` - query string
      `doDecode` - true to use URLDecoder.decode() to decode parameters

Returns:
      Map of Lists

---

getParamValue

```
public static String getParamValue(java.util.Map params,
        String key)
```

    Helper funtion to get single value from multiple value parameter Map

Parameters:
      `params` - params Map
      `key` - key string

Returns:
      first value

com.wowza.util
Class XMLUtils

```
java.lang.Object
    │
    +-com.wowza.util.XMLUtils
```

public class **XMLUtils**
extends Object

XMLUtils: utility class for parsing XML files.

Constructor Summary

public	[XMLUtils](#)()

Method Summary

static org.w3c.dom.Node	**getNodeByTagName**(org.w3c.dom.Element node, String name) Return a child Node by tag name.
static String	**getNodeValue**(org.w3c.dom.Node node) Return the text value of a node.
static String	**getNodeValueByTagName**(org.w3c.dom.Element node, String name) Get a child Node value by tag name.
static boolean	**getXMLPropertyBool**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root, boolean defaultVal) Get a boolean int value pointed to by xpath or defaultVal if not found.
static double	**getXMLPropertyDouble**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root, double defaultVal) Get a single double value pointed to by xpath or defaultVal if not found.
static boolean	**getXMLPropertyExists**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root)
static int	**getXMLPropertyInt**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root, int defaultVal) Get a single int value pointed to by xpath or defaultVal if not found.
static int	**getXMLPropertyIntSize**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root, int defaultVal)
static long	**getXMLPropertyLong**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root, long defaultVal) Get a single long value pointed to by xpath or defaultVal if not found.
static long	**getXMLPropertyLongSize**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root, long defaultVal)

static String	**getXMLPropertyStr**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root) Get a single string value pointed to by xpath or null if not found.	
static String	**getXMLPropertyStr**(javax.xml.xpath.XPath xpath, String xpathStr, org.w3c.dom.Element root, String defaultVal) Get a single string value pointed to by xpath or defaultVal if not found.	
static void	**loadConfigProperies**(org.w3c.dom.Element root, String propertiesXPath, **WMSProperties** properties) Loads <Properties> elemnt by xpath into properties object.	
static void	**loadConfigProperies**(org.w3c.dom.NodeList resultList, **WMSProperties** properties) Given a nodeList load children as properties.	
static javax.xml.xpath.XPath Factory	**newXPathFactory**() Get a new XPath factory object.	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Constructors

XMLUtils

public **XMLUtils**()

Methods

getNodeValueByTagName

public static String **getNodeValueByTagName**(org.w3c.dom.Element node,
        String name)

Get a child Node value by tag name. Return null if does not exist.

Parameters:
   node - parent node
   name - tag name

Returns:
   node value or null if does not exist

---

getNodeByTagName

public static org.w3c.dom.Node **getNodeByTagName**(org.w3c.dom.Element node,
        String name)

Return a child Node by tag name. Return null if does not exist.

Parameters:
   node - parent node

---

name - tag name

Returns:

Node or null if does not exist

getNodeValue

```
public static String getNodeValue(org.w3c.dom.Node node)
```

Return the text value of a node. Return concatenated value of all children nodes that are text nodes.

Parameters:

node - parent node

Returns:

concatenated text nodes or empty string if not found or no children

loadConfigProperies

```
public static void loadConfigProperies(org.w3c.dom.Element root,
        String propertiesXPath,
        WMSProperties properties)
```

Loads <Properties> elemnt by xpath into properties object.

Parameters:

root - root node

propertiesXPath - xpath to search for <Properties> element

properties - properties to add values to

loadConfigProperies

```
public static void loadConfigProperies(org.w3c.dom.NodeList resultList,
        WMSProperties properties)
```

Given a nodeList load children as properties.

Parameters:

resultList - node list

properties - properties to add values to

getXMLPropertyStr

```
public static String getXMLPropertyStr(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root)
```

Get a single string value pointed to by xpath or null if not found.

Parameters:

xpath - XPath interface

xpathStr - xpath string

root - root node to start search

Returns:

single string value pointed to by xpath or null if not found

getXMLPropertyStr

```
public static String getXMLPropertyStr(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root,
        String defaultVal)
```

Get a single string value pointed to by xpath or defaultVal if not found.

Parameters:
xpath - XPath interface
xpathStr - xpath string
root - node to start search
defaultVal - default value

Returns:
single string value pointed to by xpath or defaultVal if not found

---

getXMLPropertyExists

```
public static boolean getXMLPropertyExists(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root)
```

---

getXMLPropertyInt

```
public static int getXMLPropertyInt(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root,
        int defaultVal)
```

Get a single int value pointed to by xpath or defaultVal if not found.

Parameters:
xpath - XPath interface
xpathStr - xpath string
root - node to start search
defaultVal - default value

Returns:
int value or defaultVal if not found

---

getXMLPropertyIntSize

```
public static int getXMLPropertyIntSize(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root,
        int defaultVal)
```

---

getXMLPropertyLong

```
public static long getXMLPropertyLong(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root,
        long defaultVal)
```

Get a single long value pointed to by xpath or defaultVal if not found.

Parameters:
> xpath - XPath interface
> xpathStr - xpath string
> root - node to start search
> defaultVal - default value

Returns:
> long value or defaultVal if not found

getXMLPropertyLongSize

```
public static long getXMLPropertyLongSize(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root,
        long defaultVal)
```

getXMLPropertyDouble

```
public static double getXMLPropertyDouble(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root,
        double defaultVal)
```

Get a single double value pointed to by xpath or defaultVal if not found.

Parameters:
> xpath - XPath interface
> xpathStr - xpath string
> root - node to start search
> defaultVal - default value

Returns:
> double value or defaultVal if not found

getXMLPropertyBool

```
public static boolean getXMLPropertyBool(javax.xml.xpath.XPath xpath,
        String xpathStr,
        org.w3c.dom.Element root,
        boolean defaultVal)
```

Get a boolean int value pointed to by xpath or defaultVal if not found.

Parameters:
> xpath - XPath interface
> xpathStr - xpath string
> root - node to start search
> defaultVal - default value

Returns:
> boolean value or defaultVal if not found

newXPathFactory

```
public static javax.xml.xpath.XPathFactory newXPathFactory()
```

Get a new XPath factory object. There is a bug in certain implementations of the Sun VM that forces an explicit creation of the "com.sun.org.apache.xpath.internal.jaxp.XPathFactoryImpl". This method will try the correct method for creation and if fails will directly create "com.sun.org.apache.xpath.internal.jaxp.XPathFactoryImpl" object.

Returns:

XPathFactory or null if not found

Package

com.wowza.wms.amf

com.wowza.wms.amf
Class AMF3Utils

```
java.lang.Object
    │
    +-com.wowza.wms.amf.AMF3Utils
```

public class **AMF3Utils**
extends Object

AMF3 utilities

Constructor Summary

public	[AMF3Utils](#)()

Method Summary

static java.util.Date	[deserializeDate](#)(java.nio.ByteBuffer data) Deserialize date type
static int	[deserializeInt](#)(java.nio.ByteBuffer data) Deserialize int
static String	[deserializeString](#)(java.nio.ByteBuffer data) Deserialize string
static String	[deserializeString](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Deserialize string
static String	[deserializeString](#)(java.nio.ByteBuffer data, int utflen) Deserialize string
static int	[serializeDate](#)(java.io.DataOutputStream out, java.util.Date date) Serialize a date object
static int	[serializeInt](#)(java.io.DataOutputStream out, int val) Serialize int value
static int	[serializeString](#)(java.io.DataOutputStream out, String str) Serialize a string value
static int	[serializeStringNoLength](#)(java.io.DataOutputStream out, String str) Serialize string but do not write the length
static void	[serializeZeroLengthString](#)(java.io.DataOutputStream out) Serialize empty string

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

AMF3Utils

`public **AMF3Utils**()`

Methods

deserializeDate

`public static java.util.Date **deserializeDate**(java.nio.ByteBuffer data)`

Deserialize date type

Parameters:
data - buffer

Returns:
date

serializeDate

`public static int **serializeDate**(java.io.DataOutputStream out, java.util.Date date)`

Serialize a date object

Parameters:
out - output stream
date - date

Returns:
number of bytes written

deserializeInt

`public static int **deserializeInt**(java.nio.ByteBuffer data)`

Deserialize int

Parameters:
data - buffer

Returns:
int value

serializeInt

`public static int **serializeInt**(java.io.DataOutputStream out, int val)`

Serialize int value

Parameters:

out - output stream
val - int value

Returns:

number of bytes written

---

deserializeString

```
public static String deserializeString(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
  throws java.io.IOException
```

Deserialize string

Parameters:

data - data
context - AMF context

Returns:

string value

Throws:

IOException

---

deserializeString

```
public static String deserializeString(java.nio.ByteBuffer data)
  throws java.io.IOException
```

Deserialize string

Parameters:

data - data

Returns:

string value

Throws:

IOException

---

deserializeString

```
public static String deserializeString(java.nio.ByteBuffer data,
        int utflen)
  throws java.io.IOException
```

Deserialize string

Parameters:

data - data
utflen - len of the string

Returns:

string value

Throws:

IOException

---

serializeZeroLengthString

```
public static void serializeZeroLengthString(java.io.DataOutputStream out)
```

Serialize empty string

Parameters:
out - output stream

serializeStringNoLength

```
public static int serializeStringNoLength(java.io.DataOutputStream out,
        String str)
  throws java.io.IOException
```

Serialize string but do not write the length

Parameters:
out - output stream
str - string value

Returns:
number of bytes written

Throws:
IOException

serializeString

```
public static int serializeString(java.io.DataOutputStream out,
        String str)
  throws java.io.IOException
```

Serialize a string value

Parameters:
out - output stream
str - string value

Returns:
number of bytes written

Throws:
IOException

com.wowza.wms.amf
Class AMFData

```
java.lang.Object
    │
    +-com.wowza.wms.amf.AMFData
```

Direct Known Subclasses:
>   AMFDataObj, AMFDataList, AMFDataItem, AMFDataByteArray, AMFDataArray

---

public abstract class **AMFData**
extends Object

Base abstract class for data in Action Message Format (AMF). Data is sent between the Flash client and the Wowza Media Server using the AMF format. This class cannot be instantiated. It serves as the base class for all AMFData objects.

Field Summary

public static final	**AMF_LEVEL0** Value: **0**
public static final	**AMF_LEVEL3** Value: **3**
public static final	**DATA_TYPE_AMF3** Value: **17**
public static final	**DATA_TYPE_AMF3_ARRAY** Value: **9**
public static final	**DATA_TYPE_AMF3_BOOLEAN_FALSE** Value: **2**
public static final	**DATA_TYPE_AMF3_BOOLEAN_TRUE** Value: **3**
public static final	**DATA_TYPE_AMF3_BYTEARRAY** Value: **12**
public static final	**DATA_TYPE_AMF3_DATE** Value: **8**
public static final	**DATA_TYPE_AMF3_INTEGER** Value: **4**
public static final	**DATA_TYPE_AMF3_NULL** Value: **1**

public static final	DATA_TYPE_AMF3_NUMBER	
	Value: **5**	
public static final	DATA_TYPE_AMF3_OBJECT	
	Value: **10**	
public static final	DATA_TYPE_AMF3_STRING	
	Value: **6**	
public static final	DATA_TYPE_AMF3_UNDEFINED	
	Value: **0**	
public static final	DATA_TYPE_AMF3_XML_LEGACY	
	Value: **7**	
public static final	DATA_TYPE_AMF3_XML_TOP	
	Value: **11**	
public static final	DATA_TYPE_ARRAY	
	Value: **10**	
public static final	DATA_TYPE_AS_OBJECT	
	Value: **13**	
public static final	DATA_TYPE_BOOLEAN	
	Value: **1**	
public static final	DATA_TYPE_BYTEARRAY	
	Value: **33**	
public static final	DATA_TYPE_CUSTOM_CLASS	
	Value: **16**	
public static final	DATA_TYPE_DATE	
	Value: **11**	
public static final	DATA_TYPE_INTEGER	
	Value: **32**	
public static final	DATA_TYPE_LONG_STRING	
	Value: **12**	
public static final	DATA_TYPE_MIXED_ARRAY	
	Value: **8**	
public static final	DATA_TYPE_MOVIE_CLIP	
	Value: **4**	

public static final	DATA_TYPE_NULL Value: **5**	
public static final	DATA_TYPE_NUMBER Value: **0**	
public static final	DATA_TYPE_OBJECT Value: **3**	
public static final	DATA_TYPE_OBJECT_END Value: **9**	
public static final	DATA_TYPE_RECORDSET Value: **14**	
public static final	DATA_TYPE_REFERENCE_OBJECT Value: **7**	
public static final	DATA_TYPE_STRING Value: **2**	
public static final	DATA_TYPE_UNDEFINED Value: **6**	
public static final	DATA_TYPE_UNKNOWN Value: **-1**	
public static final	DATA_TYPE_XML Value: **15**	
public static final	DATA_TYPE_XML_TOP Value: **34**	
public static final	MILLS_PER_HOUR Number of milliseconds in an hour Value: **60000**	
protected	type	

Constructor Summary

public	AMFData()

Method Summary

static AMFDataContextDeseria lize	createContextDeserialize() Create an AMF3 deserialization context

static [AMFDataContextDeserialize](#)	[createContextDeserialize](#)(int objectEncoding) Create an AMF3 deserialization context
static [AMFDataContextSerialize](#)	[createContextSerialize](#)() Create an AMF3 serialization context
static [AMFDataContextSerialize](#)	[createContextSerialize](#)(int objectEncoding) Create an AMF3 serialization context
abstract void	[deserialize](#)(java.nio.ByteBuffer data) Deserialize data in byte buffer
abstract void	[deserialize](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Deserialize data in byte buffer
static [AMFData](#)	[deserializeInnerObject](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Deserialize next item
static [AMFData](#)	[getReference](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Get AMF3 object reference
int	[getType](#)() Returns the data type for this object
abstract Object	[getValue](#)() Convert object to Java native class
static boolean	[isAMF3Start](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Returns true if next byte in data is AMF3 start
static boolean	[isArrayStart](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Returns true if next byte in data is an array start
static boolean	[isByteArrayStart](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Returns true if next byte is ByteArray start
static boolean	[isMixedArrayStart](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Returns true if next byte in data is mixed array start
static boolean	[isObjEnd](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Returns true if next byte is object end
static boolean	[isObjStart](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Returns true if next byte in data is object start
static int	[peekByte](#)(java.nio.ByteBuffer data) Return the next byte in the buffer without incrementing the data position
abstract byte[]	[serialize](#)() Serial object to byte array
abstract byte[]	[serialize](#)([AMFDataContextSerialize](#) context) Serial object to byte array

abstract void	serialize(java.io.DataOutputStream out) Serialize object to output stream	
abstract void	serialize(java.io.DataOutputStream out, AMFDataContextSerialize context) Serialize object to output stream	
abstract void	serialize(java.io.DataOutputStream out, int objectEncoding) Serialize object to output stream	
abstract byte[]	serialize(int objectEncoding) Serial object to byte array	
void	setType(int type) Sets the the data type for this object	
static int	skipByte(java.nio.ByteBuffer data) Skip forward one byte in the byte buffer	
static boolean	testNextByte(java.nio.ByteBuffer data, int test) Peek at the next value in data to see if its the test value	
static boolean	triggerAMF3Switch(AMFData data) Return true if the object is serialized differently in AMF3	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait
```

Fields

DATA_TYPE_UNKNOWN

public static final byte **DATA_TYPE_UNKNOWN**

> Constant value: **-1**

DATA_TYPE_NUMBER

public static final byte **DATA_TYPE_NUMBER**

> Constant value: **0**

DATA_TYPE_BOOLEAN

public static final byte **DATA_TYPE_BOOLEAN**

> Constant value: **1**

DATA_TYPE_STRING

public static final byte **DATA_TYPE_STRING**

Constant value: **2**

DATA_TYPE_OBJECT

public static final byte **DATA_TYPE_OBJECT**

Constant value: **3**

DATA_TYPE_MOVIE_CLIP

public static final byte **DATA_TYPE_MOVIE_CLIP**

Constant value: **4**

DATA_TYPE_NULL

public static final byte **DATA_TYPE_NULL**

Constant value: **5**

DATA_TYPE_UNDEFINED

public static final byte **DATA_TYPE_UNDEFINED**

Constant value: **6**

DATA_TYPE_REFERENCE_OBJECT

public static final byte **DATA_TYPE_REFERENCE_OBJECT**

Constant value: **7**

DATA_TYPE_MIXED_ARRAY

public static final byte **DATA_TYPE_MIXED_ARRAY**

Constant value: **8**

DATA_TYPE_OBJECT_END

public static final byte **DATA_TYPE_OBJECT_END**

Constant value: **9**

DATA_TYPE_ARRAY

public static final byte **DATA_TYPE_ARRAY**

Constant value: **10**

DATA_TYPE_DATE

`public static final byte` **`DATA_TYPE_DATE`**

Constant value: **11**

DATA_TYPE_LONG_STRING

`public static final byte` **`DATA_TYPE_LONG_STRING`**

Constant value: **12**

DATA_TYPE_AS_OBJECT

`public static final byte` **`DATA_TYPE_AS_OBJECT`**

Constant value: **13**

DATA_TYPE_RECORDSET

`public static final byte` **`DATA_TYPE_RECORDSET`**

Constant value: **14**

DATA_TYPE_XML

`public static final byte` **`DATA_TYPE_XML`**

Constant value: **15**

DATA_TYPE_CUSTOM_CLASS

`public static final byte` **`DATA_TYPE_CUSTOM_CLASS`**

Constant value: **16**

DATA_TYPE_AMF3

`public static final byte` **`DATA_TYPE_AMF3`**

Constant value: **17**

DATA_TYPE_INTEGER

`public static final byte` **`DATA_TYPE_INTEGER`**

Constant value: **32**

DATA_TYPE_BYTEARRAY

`public static final byte` **`DATA_TYPE_BYTEARRAY`**

Constant value: **33**

DATA_TYPE_XML_TOP

`public static final byte` **`DATA_TYPE_XML_TOP`**

Constant value: **34**

DATA_TYPE_AMF3_UNDEFINED

`public static final byte` **`DATA_TYPE_AMF3_UNDEFINED`**

Constant value: **0**

DATA_TYPE_AMF3_NULL

`public static final byte` **`DATA_TYPE_AMF3_NULL`**

Constant value: **1**

DATA_TYPE_AMF3_BOOLEAN_FALSE

`public static final byte` **`DATA_TYPE_AMF3_BOOLEAN_FALSE`**

Constant value: **2**

DATA_TYPE_AMF3_BOOLEAN_TRUE

`public static final byte` **`DATA_TYPE_AMF3_BOOLEAN_TRUE`**

Constant value: **3**

DATA_TYPE_AMF3_INTEGER

`public static final byte` **`DATA_TYPE_AMF3_INTEGER`**

Constant value: **4**

DATA_TYPE_AMF3_NUMBER

`public static final byte` **`DATA_TYPE_AMF3_NUMBER`**

Constant value: **5**

DATA_TYPE_AMF3_STRING

`public static final byte` **`DATA_TYPE_AMF3_STRING`**

Constant value: **6**

DATA_TYPE_AMF3_XML_LEGACY

`public static final byte` **`DATA_TYPE_AMF3_XML_LEGACY`**

Constant value: **7**

DATA_TYPE_AMF3_DATE

`public static final byte` **`DATA_TYPE_AMF3_DATE`**

Constant value: **8**

DATA_TYPE_AMF3_ARRAY

`public static final byte` **`DATA_TYPE_AMF3_ARRAY`**

Constant value: **9**

DATA_TYPE_AMF3_OBJECT

`public static final byte` **`DATA_TYPE_AMF3_OBJECT`**

Constant value: **10**

DATA_TYPE_AMF3_XML_TOP

`public static final byte` **`DATA_TYPE_AMF3_XML_TOP`**

Constant value: **11**

DATA_TYPE_AMF3_BYTEARRAY

`public static final byte` **`DATA_TYPE_AMF3_BYTEARRAY`**

Constant value: **12**

AMF_LEVEL0

`public static final byte` **`AMF_LEVEL0`**

Constant value: **0**

AMF_LEVEL3

`public static final byte` **`AMF_LEVEL3`**

Constant value: **3**

MILLS_PER_HOUR

`public static final int` **`MILLS_PER_HOUR`**

Number of milliseconds in an hour
Constant value: **`60000`**

type

`protected int` **`type`**

Constructors

AMFData

`public` **`AMFData`**`()`

Methods

getType

`public int` **`getType`**`()`

Returns the data type for this object

Returns:
object type DATA_TYPE_*

setType

`public void` **`setType`**`(int type)`

Sets the the data type for this object

Parameters:
`type` - type DATA_TYPE_*

testNextByte

`public static boolean` **`testNextByte`**`(java.nio.ByteBuffer data,`
`        int test)`

Peek at the next value in data to see if its the test value

Parameters:
`data` - binary data being deserialized
`test` - value being tested

Returns:
return true if the next byte in the buffer equals the test value

peekByte

`public static int` **`peekByte`**`(java.nio.ByteBuffer data)`

Return the next byte in the buffer without incrementing the data position

Parameters:
>   `data` - binary data being deserialized

Returns:
>   next byte in buffer

---

skipByte

```
public static int skipByte(java.nio.ByteBuffer data)
```

Skip forward one byte in the byte buffer

Parameters:
>   `data` - binary data being deserialized

Returns:
>   next byte in buffer

---

isObjStart

```
public static boolean isObjStart(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Returns true if next byte in data is object start

Parameters:
>   `data` - binary data being deserialized
>   `context` - deserialization context

Returns:
>   Returns true if next byte in data is object start

---

isAMF3Start

```
public static boolean isAMF3Start(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Returns true if next byte in data is AMF3 start

Parameters:
>   `data` - binary data being deserialized
>   `context` - deserialization context

Returns:
>   Returns true if next byte in data is object start

---

isArrayStart

```
public static boolean isArrayStart(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Returns true if next byte in data is an array start

Parameters:
>   `data` - binary data being deserialized
>   `context` - deserialization context

Returns:
>   Returns true if next byte in data is and array start

isMixedArrayStart

```
public static boolean isMixedArrayStart(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Returns true if next byte in data is mixed array start

Parameters:
>   `data` - binary data being deserialized
>   `context` - deserialization context

Returns:
>   Returns true if next byte in data is mixed array start

isObjEnd

```
public static boolean isObjEnd(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Returns true if next byte is object end

Parameters:
>   `data` - binary data being deserialized
>   `context` - deserialization context

Returns:
>   Returns true if next byte in object end

isByteArrayStart

```
public static boolean isByteArrayStart(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Returns true if next byte is ByteArray start

Parameters:
>   `data` - binary data being deserialized
>   `context` - deserialization context

Returns:
>   true if next byte in object end

getReference

```
public static AMFData getReference(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Get AMF3 object reference

Parameters:
>   `data` - binary data being deserialized
>   `context` - deserialization context

Returns:
>   null if not a reference else referenced object

deserializeInnerObject

```
public static AMFData deserializeInnerObject(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
  throws java.io.IOException
```

Deserialize next item

Parameters:
data - binary data being deserialized
context - deserialization context

Returns:
deserialized object

Throws:
IOException

createContextSerialize

```
public static AMFDataContextSerialize createContextSerialize()
```

Create an AMF3 serialization context

Returns:
AMF3 serialization context

createContextSerialize

```
public static AMFDataContextSerialize createContextSerialize(int objectEncoding)
```

Create an AMF3 serialization context

Parameters:
objectEncoding - object encoding level (see AMF_LEVEL*)

Returns:
AMF3 serialization context

createContextDeserialize

```
public static AMFDataContextDeserialize createContextDeserialize()
```

Create an AMF3 deserialization context

Returns:
AMF3 deserialization context

createContextDeserialize

```
public static AMFDataContextDeserialize createContextDeserialize(int objectEncoding)
```

Create an AMF3 deserialization context

Parameters:
objectEncoding - object encoding level (see AMF_LEVEL*)

Returns:

AMF3 deserialization context

serialize

```
public abstract void serialize(java.io.DataOutputStream out)
```

Serialize object to output stream

Parameters:
out - Output stream

serialize

```
public abstract void serialize(java.io.DataOutputStream out,
        int objectEncoding)
```

Serialize object to output stream

Parameters:
out - Output stream
objectEncoding - object encoding level (see AMF_LEVEL*)

serialize

```
public abstract void serialize(java.io.DataOutputStream out,
        AMFDataContextSerialize context)
```

Serialize object to output stream

Parameters:
out - Output stream
context - serialization context used by AMF3

serialize

```
public abstract byte[] serialize()
```

Serial object to byte array

Returns:
serialized byte array

serialize

```
public abstract byte[] serialize(int objectEncoding)
```

Serial object to byte array

Parameters:
objectEncoding - object encoding level (see AMF_LEVEL*)

Returns:
serialized byte array

serialize

```
public abstract byte[] serialize(AMFDataContextSerialize context)
```

Serial object to byte array

Parameters:
       `context` - serialization context used by AMF3

Returns:
       serialized byte array

deserialize

`public abstract void` **`deserialize`**`(java.nio.ByteBuffer data)`

Deserialize data in byte buffer

Parameters:
       `data` - binary data

deserialize

`public abstract void` **`deserialize`**`(java.nio.ByteBuffer data,`
       `AMFDataContextDeserialize context)`

Deserialize data in byte buffer

Parameters:
       `data` - binary data
       `context` - deserialization context used by AMF3

getValue

`public abstract Object` **`getValue`**`()`

Convert object to Java native class

Returns:
       java native class

triggerAMF3Switch

`public static boolean` **`triggerAMF3Switch`**`(AMFData data)`

Return true if the object is serialized differently in AMF3

Parameters:
       `data` - AMF object

Returns:
       true if the object is serialized differently in AMF3

com.wowza.wms.amf
Class AMFDataArray

```
java.lang.Object
    |
    +-com.wowza.wms.amf.AMFData
          |
          +-com.wowza.wms.amf.AMFDataArray
```
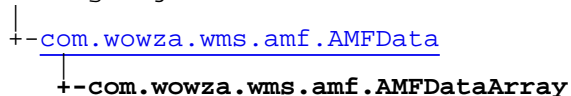
public class **AMFDataArray**
extends AMFData

AMFDataArray: class for marshalling data between Wowza Pro server and Flash client. This class is a simple ordered array of items.

Create Array of Strings

```
AMFDataArray amfDataArray = new AMFDataArray();

amfDataArray.add("item1");
amfDataArray.add("item2");
amfDataArray.add("item3");
```

Iterate Items In Array

```
AMFDataArray amfDataArray;

for(int i=0;i<amfDataArray.size();i++)
{
        AMFData amfData = amfDataArray.get(i);
        WMSLoggerFactory.getLogger(null).debug("amfData.getType(): "+amfData.getType());
}
```

NOTE: There is a slight difference between this class and AMFDataList. This class when serialized/deserialized does include the DATA_TYPE_ARRAY header (byte) and array size (int).

NOTE: Simple arrays created in the Flash player client and sent to the Wowza Pro server are of type `AMFDataMixedArray`.

Fields inherited from class `com.wowza.wms.amf.AMFData`

AMF_LEVEL0, AMF_LEVEL3, DATA_TYPE_AMF3, DATA_TYPE_AMF3_ARRAY, DATA_TYPE_AMF3_BOOLEAN_FALSE, DATA_TYPE_AMF3_BOOLEAN_TRUE, DATA_TYPE_AMF3_BYTEARRAY, DATA_TYPE_AMF3_DATE, DATA_TYPE_AMF3_INTEGER, DATA_TYPE_AMF3_NULL, DATA_TYPE_AMF3_NUMBER, DATA_TYPE_AMF3_OBJECT, DATA_TYPE_AMF3_STRING, DATA_TYPE_AMF3_UNDEFINED, DATA_TYPE_AMF3_XML_LEGACY, DATA_TYPE_AMF3_XML_TOP, DATA_TYPE_ARRAY, DATA_TYPE_AS_OBJECT, DATA_TYPE_BOOLEAN, DATA_TYPE_BYTEARRAY, DATA_TYPE_CUSTOM_CLASS, DATA_TYPE_DATE, DATA_TYPE_INTEGER, DATA_TYPE_LONG_STRING, DATA_TYPE_MIXED_ARRAY, DATA_TYPE_MOVIE_CLIP, DATA_TYPE_NULL, DATA_TYPE_NUMBER, DATA_TYPE_OBJECT, DATA_TYPE_OBJECT_END, DATA_TYPE_RECORDSET, DATA_TYPE_REFERENCE_OBJECT, DATA_TYPE_STRING, DATA_TYPE_UNDEFINED, DATA_TYPE_UNKNOWN, DATA_TYPE_XML, DATA_TYPE_XML_TOP, MILLS_PER_HOUR, type

Constructor Summary

public	**AMFDataArray**() Create empty AMFDataArray object
public	**AMFDataArray**(byte[] data) Deserialize entire data array and create AMFDataArray object
public	**AMFDataArray**(byte[] data, int offset, int size) Deserialize data array starting at offest for size bytes and create AMFDataArray object
public	**AMFDataArray**(java.nio.ByteBuffer data) Deserialize entire data array and create AMFDataArray object
public	**AMFDataArray**(java.nio.ByteBuffer data, AMFDataContextDeserialize context)

Method Summary

void	**add**(AMFData data) Append a new item onto the array
void	**add**(boolean data) Append a boolean (will be wrapped in an AMFDataItem object)
void	**add**(java.util.Date data) Append a date (will be wrapped in an AMFDataItem object)
void	**add**(double data) Append a double (will be wrapped in an AMFDataItem object)
void	**add**(int data) Append a int (will be wrapped in an AMFDataItem object)
void	**add**(int index, AMFData data) Insert an item into the array
void	**add**(int index, boolean data) Insert a boolean value (will be wrapped in an AMFDataItem object)
void	**add**(int index, java.util.Date data) Insert a date value (will be wrapped in an AMFDataItem object)
void	**add**(int index, double data) Insert a double value (will be wrapped in an AMFDataItem object)

void	**add**(int index, int data)	
	Insert a int value (will be wrapped in an AMFDataItem object)	
void	**add**(int index, long data)	
	Insert a long value (will be wrapped in an AMFDataItem object)	
void	**add**(int index, String data)	
	Insert a string value (will be wrapped in an AMFDataItem object)	
void	**add**(long data)	
	Append a long (will be wrapped in an AMFDataItem object)	
void	**add**(String data)	
	Append a string (will be wrapped in an AMFDataItem object)	
void	**deserialize**(java.nio.ByteBuffer data)	
void	**deserialize**(java.nio.ByteBuffer data, **AMFDataContextDeserialize** context)	
AMFData	**get**(int index)	
	Get item at index	
boolean	**getBoolean**(int index)	
	Get item at index return as boolean	
byte	**getByte**(int index)	
	Get item at index return as byte	
java.util.Date	**getDate**(int index)	
	Get item at index return as Date	
double	**getDouble**(int index)	
	Get item at index return as double	
float	**getFloat**(int index)	
	Get item at index return as float	
int	**getInt**(int index)	
	Get item at index return as int	
long	**getLong**(int index)	
	Get item at index return as long	
AMFDataObj	**getObject**(int index)	
	Get item at index return as AMFDataObj	
short	**getShort**(int index)	
	Get item at index return as short	
String	**getString**(int index)	
	Get item at index return as String	
Object	**getValue**()	
AMFData	**remove**(int index)	
	Remove an item from the array	

byte[]	**serialize**()	
byte[]	**serialize**(**AMFDataContextSerialize** context)	
void	**serialize**(java.io.DataOutputStream out)	
void	**serialize**(java.io.DataOutputStream out, **AMFDataContextSerialize** context)	
void	**serialize**(java.io.DataOutputStream out, int objectEncoding)	
byte[]	**serialize**(int objectEncoding)	
void	**set**(int index, **AMFData** data) Set an array item	
void	**set**(int index, boolean data) Set an boolean value (will be wrapped in an AMFDataItem object)	
void	**set**(int index, java.util.Date data) Set an date value (will be wrapped in an AMFDataItem object)	
void	**set**(int index, double data) Set an double value (will be wrapped in an AMFDataItem object)	
void	**set**(int index, int data) Set an int value (will be wrapped in an AMFDataItem object)	
void	**set**(int index, long data) Set an long value (will be wrapped in an AMFDataItem object)	
void	**set**(int index, String data) Set an string value (will be wrapped in an AMFDataItem object)	
int	**size**() Returns the number of items in array	
String	**toString**() Return object as formatted string	

Methods inherited from class **com.wowza.wms.amf.AMFData**

createContextDeserialize, **createContextDeserialize**, **createContextSerialize**, **createContextSerialize**, **deserialize**, **deserialize**, **deserializeInnerObject**, **getReference**, **getType**, **getValue**, **isAMF3Start**, **isArrayStart**, **isByteArrayStart**, **isMixedArrayStart**, **isObjEnd**, **isObjStart**, **peekByte**, **serialize**, **serialize**, **serialize**, **serialize**, **serialize**, **serialize**, **setType**, **skipByte**, **testNextByte**, **triggerAMF3Switch**

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

AMFDataArray

public **AMFDataArray**()

Create empty AMFDataArray object

AMFDataArray

public **AMFDataArray**(byte[] data)

Deserialize entire data array and create AMFDataArray object

Parameters:
data - binary data

AMFDataArray

public **AMFDataArray**(byte[] data,
                       int offset,
                       int size)

Deserialize data array starting at offest for size bytes and create AMFDataArray object

Parameters:
data - binary data
offset - starting offset into data
size - size of data to deserialize

AMFDataArray

public **AMFDataArray**(java.nio.ByteBuffer data)

Deserialize entire data array and create AMFDataArray object

Parameters:
data - binary data

AMFDataArray

public **AMFDataArray**(java.nio.ByteBuffer data,
                       AMFDataContextDeserialize context)

Methods

remove

public AMFData **remove**(int index)

Remove an item from the array

Parameters:
index - index

Returns:
delete item or null if not found

size

```
public int size()
```

Returns the number of items in array

Returns:
number of items in array

add

```
public void add(AMFData data)
```

Append a new item onto the array

Parameters:
data - AMFData object

add

```
public void add(String data)
```

Append a string (will be wrapped in an AMFDataItem object)

Parameters:
data - string value

add

```
public void add(double data)
```

Append a double (will be wrapped in an AMFDataItem object)

Parameters:
data - double value

add

```
public void add(int data)
```

Append a int (will be wrapped in an AMFDataItem object)

Parameters:
data - int value

add

```
public void add(long data)
```

Append a long (will be wrapped in an AMFDataItem object)

Parameters:
data - long value

add

```
public void add(java.util.Date data)
```

Append a date (will be wrapped in an AMFDataItem object)

Parameters:
data - date value

add

```
public void add(boolean data)
```

Append a boolean (will be wrapped in an AMFDataItem object)

Parameters:
data - boolean value

add

```
public void add(int index,
        AMFData data)
```

Insert an item into the array

Parameters:
index - index
data - AMFData object

add

```
public void add(int index,
        String data)
```

Insert a string value (will be wrapped in an AMFDataItem object)

Parameters:
index - index
data - string value

add

```
public void add(int index,
        double data)
```

Insert a double value (will be wrapped in an AMFDataItem object)

Parameters:
index - index
data - double value

add

```
public void add(int index,
        int data)
```

Insert a int value (will be wrapped in an AMFDataItem object)

Parameters:
index - index
data - int value

add

```
public void add(int index,
        long data)
```

Insert a long value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - long value

add

```
public void add(int index,
        java.util.Date data)
```

Insert a date value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - date value

add

```
public void add(int index,
        boolean data)
```

Insert a boolean value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - boolean value

set

```
public void set(int index,
        AMFData data)
```

Set an array item

Parameters:
    index - index
    data - AMFData object

set

```
public void set(int index,
        String data)
```

Set an string value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - string value

set

```
public void set(int index,
        double data)
```

Set an double value (will be wrapped in an AMFDataItem object)

> **Parameters:**
> > `index` - index
> > `data` - double value

---

set

```
public void set(int index,
        int data)
```

> Set an int value (will be wrapped in an AMFDataItem object)

> **Parameters:**
> > `index` - index
> > `data` - int value

---

set

```
public void set(int index,
        long data)
```

> Set an long value (will be wrapped in an AMFDataItem object)

> **Parameters:**
> > `index` - index
> > `data` - long value

---

set

```
public void set(int index,
        java.util.Date data)
```

> Set an date value (will be wrapped in an AMFDataItem object)

> **Parameters:**
> > `index` - index
> > `data` - date value

---

set

```
public void set(int index,
        boolean data)
```

> Set an boolean value (will be wrapped in an AMFDataItem object)

> **Parameters:**
> > `index` - index
> > `data` - boolean value

---

get

```
public AMFData get(int index)
```

> Get item at index

> **Parameters:**
> > `index`

Returns:

Returns AMFData object or null if out of bounds

getString

```
public String getString(int index)
```

Get item at index return as String

Parameters:
index

Returns:

Return item as String or null if out of bounds

getInt

```
public int getInt(int index)
```

Get item at index return as int

Parameters:
index

Returns:

Return item as int or 0 if out of bounds

getLong

```
public long getLong(int index)
```

Get item at index return as long

Parameters:
index

Returns:

Return item as long or 0 if out of bounds

getShort

```
public short getShort(int index)
```

Get item at index return as short

Parameters:
index

Returns:

Return item as short or 0 if out of bounds

getByte

```
public byte getByte(int index)
```

Get item at index return as byte

Parameters:

```
        index
```

> **Returns:**
>> Return item as byte or 0 if out of bounds

getBoolean

```
public boolean getBoolean(int index)
```

> Get item at index return as boolean

>> **Parameters:**
>>> index

>> **Returns:**
>>> Return item as boolean or false if out of bounds

getDate

```
public java.util.Date getDate(int index)
```

> Get item at index return as Date

>> **Parameters:**
>>> index

>> **Returns:**
>>> Return item as Date or null if out of bounds

getObject

```
public AMFDataObj getObject(int index)
```

> Get item at index return as AMFDataObj

>> **Parameters:**
>>> index

>> **Returns:**
>>> Return item as AMFDataObj or null if out of bounds

getDouble

```
public double getDouble(int index)
```

> Get item at index return as double

>> **Parameters:**
>>> index

>> **Returns:**
>>> Return item as double or 0 if out of bounds

getFloat

```
public float getFloat(int index)
```

> Get item at index return as float

Parameters:
    index

Returns:
    Return item as float or 0 if out of bounds

---

deserialize

```
public void deserialize(java.nio.ByteBuffer data)
```

Deserialize data in byte buffer

---

deserialize

```
public void deserialize(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Deserialize data in byte buffer

---

serialize

```
public void serialize(java.io.DataOutputStream out)
```

Serialize object to output stream

---

serialize

```
public void serialize(java.io.DataOutputStream out,
        int objectEncoding)
```

Serialize object to output stream

---

serialize

```
public void serialize(java.io.DataOutputStream out,
        AMFDataContextSerialize context)
```

Serialize object to output stream

---

serialize

```
public byte[] serialize()
```

Serial object to byte array

---

serialize

```
public byte[] serialize(int objectEncoding)
```

Serial object to byte array

---

serialize

```
public byte[] serialize(AMFDataContextSerialize context)
```

Serial object to byte array

---

getValue

```
public Object getValue()
```

>   Convert object to Java native class

toString

```
public String toString()
```

>   Return object as formatted string

```
public Object getValue()
```

com.wowza.wms.amf
Class AMFDataByteArray

```
java.lang.Object
    |
    +-com.wowza.wms.amf.AMFData
        |
        +-com.wowza.wms.amf.AMFDataByteArray
```
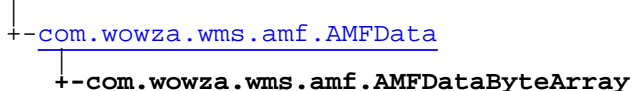
public class **AMFDataByteArray**
extends [AMFData](#)

AMFDataByteArray: class for marshalling data between Wowza Pro server and Flash client. This class is a simple byte array.

Fields inherited from class [com.wowza.wms.amf.AMFData](#)
[AMF_LEVEL0](#), [AMF_LEVEL3](#), [DATA_TYPE_AMF3](#), [DATA_TYPE_AMF3_ARRAY](#), [DATA_TYPE_AMF3_BOOLEAN_FALSE](#), [DATA_TYPE_AMF3_BOOLEAN_TRUE](#), [DATA_TYPE_AMF3_BYTEARRAY](#), [DATA_TYPE_AMF3_DATE](#), [DATA_TYPE_AMF3_INTEGER](#), [DATA_TYPE_AMF3_NULL](#), [DATA_TYPE_AMF3_NUMBER](#), [DATA_TYPE_AMF3_OBJECT](#), [DATA_TYPE_AMF3_STRING](#), [DATA_TYPE_AMF3_UNDEFINED](#), [DATA_TYPE_AMF3_XML_LEGACY](#), [DATA_TYPE_AMF3_XML_TOP](#), [DATA_TYPE_ARRAY](#), [DATA_TYPE_AS_OBJECT](#), [DATA_TYPE_BOOLEAN](#), [DATA_TYPE_BYTEARRAY](#), [DATA_TYPE_CUSTOM_CLASS](#), [DATA_TYPE_DATE](#), [DATA_TYPE_INTEGER](#), [DATA_TYPE_LONG_STRING](#), [DATA_TYPE_MIXED_ARRAY](#), [DATA_TYPE_MOVIE_CLIP](#), [DATA_TYPE_NULL](#), [DATA_TYPE_NUMBER](#), [DATA_TYPE_OBJECT](#), [DATA_TYPE_OBJECT_END](#), [DATA_TYPE_RECORDSET](#), [DATA_TYPE_REFERENCE_OBJECT](#), [DATA_TYPE_STRING](#), [DATA_TYPE_UNDEFINED](#), [DATA_TYPE_UNKNOWN](#), [DATA_TYPE_XML](#), [DATA_TYPE_XML_TOP](#), [MILLS_PER_HOUR](#), [type](#)

Constructor Summary

public	[AMFDataByteArray](#)() Create empty AMFDataByteArray object
public	[AMFDataByteArray](#)(byte[] data) Deserialize entire byte array and create AMFDataByteArray object.
public	[AMFDataByteArray](#)(byte[] data, int offset, int size) Deserialize data array starting at offest for size bytes and create AMFDataByteArray object.
public	[AMFDataByteArray](#)(java.nio.ByteBuffer data) Deserialize entire data array and create AMFDataByteArray object.
public	[AMFDataByteArray](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context) Deserialize entire data array and create AMFDataByteArray object.

Method Summary

int	[compress](#)() Compress the internal buffer using the ZLIB compression library
int	[decompress](#)() Decompress the internal buffer using the ZLIB compression library
void	[deserialize](#)(java.nio.ByteBuffer data)

void	**deserialize**(java.nio.ByteBuffer data, **AMFDataContextDeserialize** context)	
Object	**getValue**() Returns the underlying byte[] data buffer	
byte[]	**serialize**()	
byte[]	**serialize**(**AMFDataContextSerialize** context)	
void	**serialize**(java.io.DataOutputStream out)	
void	**serialize**(java.io.DataOutputStream out, **AMFDataContextSerialize** context)	
void	**serialize**(java.io.DataOutputStream out, int objectEncoding)	
byte[]	**serialize**(int objectEncoding)	
int	**size**() Returns the number of bytes in the byte array	
byte[]	**toArray**() Returns the underlying data buffer (not a copy)	
java.nio.ByteBuffer	**toByteBuffer**() Wraps the underlying data buffer with a ByteBuffer object.	
String	**toString**() Return object as formatted string	
static **AMFDataByteArray**	**wrap**(byte[] data) Wraps a byte[] into a AMFDataByteArray.	
static **AMFDataByteArray**	**wrap**(java.nio.ByteBuffer data) Wraps a ByteBuffer into a AMFDataByteArray.	

Methods inherited from class **com.wowza.wms.amf.AMFData**

createContextDeserialize, **createContextDeserialize**, **createContextSerialize**, **createContextSerialize**, **deserialize**, **deserialize**, **deserializeInnerObject**, **getReference**, **getType**, **getValue**, **isAMF3Start**, **isArrayStart**, **isByteArrayStart**, **isMixedArrayStart**, **isObjEnd**, **isObjStart**, **peekByte**, **serialize**, **serialize**, **serialize**, **serialize**, **serialize**, **serialize**, **setType**, **skipByte**, **testNextByte**, **triggerAMF3Switch**

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

AMFDataByteArray

public **AMFDataByteArray**()

> Create empty AMFDataByteArray object

AMFDataByteArray

public **AMFDataByteArray**(byte[] data)

> Deserialize entire byte array and create AMFDataByteArray object. Note: This is for AMF3 deserialization and cannot be used to create an AMFDataByteArray with the passed in data. To create a new AMDDataByteArray from either a byte[] or ByteBuffer, use the static wrap method.
>
> **Parameters:**
> > data - binary data

AMFDataByteArray

public **AMFDataByteArray**(byte[] data,
                           int offset,
                           int size)

> Deserialize data array starting at offest for size bytes and create AMFDataByteArray object. Note: This is for AMF3 deserialization and cannot be used to create an AMFDataByteArray with the passed in data. To create a new AMDDataByteArray from either a byte[] or ByteBuffer, use the static wrap method.
>
> **Parameters:**
> > data - binary data
> > offset - starting offset into data
> > size - size of data to deserialize

AMFDataByteArray

public **AMFDataByteArray**(java.nio.ByteBuffer data)

> Deserialize entire data array and create AMFDataByteArray object. Note: This is for AMF3 deserialization and cannot be used to create an AMFDataByteArray with the passed in data. To create a new AMDDataByteArray from either a byte[] or ByteBuffer, use the static wrap method.
>
> **Parameters:**
> > data - binary data

AMFDataByteArray

public **AMFDataByteArray**(java.nio.ByteBuffer data,
                           AMFDataContextDeserialize context)

> Deserialize entire data array and create AMFDataByteArray object. Note: This is for AMF3 deserialization and cannot be used to create an AMFDataByteArray with the passed in data. To create a new AMDDataByteArray from either a byte[] or ByteBuffer, use the static wrap method.
>
> **Parameters:**
> > data - binary data
> > context - deserialization context (used for AMF3 decoding)

Methods

---

size

```
public int size()
```

> Returns the number of bytes in the byte array
>
> > **Returns:**
> > number of bytes in the array

toArray

```
public byte[] toArray()
```

> Returns the underlying data buffer (not a copy)
>
> > **Returns:**
> > data buffer (not a copy)

toByteBuffer

```
public java.nio.ByteBuffer toByteBuffer()
```

> Wraps the underlying data buffer with a ByteBuffer object.
>
> > **Returns:**
> > byte[] wrapped as ByteBuffer

wrap

```
public static AMFDataByteArray wrap(byte[] data)
```

> Wraps a byte[] into a AMFDataByteArray. Note: This method does not copy the array.
>
> > **Parameters:**
> > data - byte[] data
> >
> > **Returns:**
> > wrapped byte[]

wrap

```
public static AMFDataByteArray wrap(java.nio.ByteBuffer data)
```

> Wraps a ByteBuffer into a AMFDataByteArray. Note: This method only copies the ByteBuffer data if the ByteBuffer.array() method fails.
>
> > **Parameters:**
> > data - ByteBuffer data
> >
> > **Returns:**
> > wrapped ByteBuffer

getValue

```
public Object getValue()
```

> Returns the underlying byte[] data buffer

deserialize

```
public void deserialize(java.nio.ByteBuffer data)
```

Deserialize data in byte buffer

deserialize

```
public void deserialize(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Deserialize data in byte buffer

serialize

```
public void serialize(java.io.DataOutputStream out)
```

Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        int objectEncoding)
```

Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        AMFDataContextSerialize context)
```

Serialize object to output stream

serialize

```
public byte[] serialize()
```

Serial object to byte array

serialize

```
public byte[] serialize(int objectEncoding)
```

Serial object to byte array

serialize

```
public byte[] serialize(AMFDataContextSerialize context)
```

Serial object to byte array

compress

```
public int compress()
```

Compress the internal buffer using the ZLIB compression library

Returns:

size of compressed buffer

decompress

```
public int decompress()
```

Decompress the internal buffer using the ZLIB compression library

Returns:
size of decompressed buffer

toString

```
public String toString()
```

Return object as formatted string

com.wowza.wms.amf
Class AMFDataContextDeserialize

```
java.lang.Object
    │
    +-com.wowza.wms.amf.AMFDataContextDeserialize
```

public class **AMFDataContextDeserialize**
extends Object

AMF context used for deserialization

Constructor Summary

public	**AMFDataContextDeserialize**() Constructor
public	**AMFDataContextDeserialize**(int objectEncoding) Constructor with encoding

Method Summary

void	**addObject**(Object obj) Add an object to the object cache
void	**addString**(String str) Add a string to the string cache
void	**addTrait**(AMFDataTrait obj) Add a trait to the trait cache
int	**clearIntData**() Internal use, get and clear int data
int	**getIntData**() Internal use, get int data
Object	**getObject**(int index) Get an object from the object cache
int	**getObjectEncoding**() Get object encoding, see AMFData.AMF_LEVEL*
String	**getString**(int index) Get a string from the string cache
AMFDataTrait	**getTrait**(int index) Get a trait from the trait cache
boolean	**isAMF0**() Is context AMF0
boolean	**isAMF3**() Is context AMF3

boolean	isIntData() Internal use, get int data	
void	setIntData(int intData) Internal use, set int data	
void	setObjectEncoding(int objectEncoding) Set object encoding, see AMFData.AMF_LEVEL*	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

AMFDataContextDeserialize

public **AMFDataContextDeserialize**()

Constructor

AMFDataContextDeserialize

public **AMFDataContextDeserialize**(int objectEncoding)

Constructor with encoding

Parameters:
objectEncoding - object encoding, see AMFData.AMF_LEVEL*

Methods

isIntData

public boolean **isIntData**()

Internal use, get int data

Returns:
returns true if pending int data

setIntData

public void **setIntData**(int intData)

Internal use, set int data

Parameters:
intData - int data

getIntData

public int **getIntData**()

Internal use, get int data

Returns:
    int data

clearIntData

`public int clearIntData()`

Internal use, get and clear int data

Returns:
    int data

getObjectEncoding

`public int getObjectEncoding()`

Get object encoding, see AMFData.AMF_LEVEL*

Returns:
    object encoding, see AMFData.AMF_LEVEL*

setObjectEncoding

`public void setObjectEncoding(int objectEncoding)`

Set object encoding, see AMFData.AMF_LEVEL*

Parameters:
    objectEncoding - object encoding, see AMFData.AMF_LEVEL*

isAMF3

`public boolean isAMF3()`

Is context AMF3

Returns:
    true, if AMF3

isAMF0

`public boolean isAMF0()`

Is context AMF0

Returns:
    true, if AMF0

addString

`public void addString(String str)`

Add a string to the string cache

Parameters:
    str - string value

getString

```
public String getString(int index)
   throws IndexOutOfBoundsException
```

Get a string from the string cache

Parameters:
   index - index

Returns:
   string value

Throws:
   IndexOutOfBoundsException

addObject

```
public void addObject(Object obj)
```

Add an object to the object cache

Parameters:
   obj - object value

getObject

```
public Object getObject(int index)
   throws IndexOutOfBoundsException
```

Get an object from the object cache

Parameters:
   index - index

Returns:
   object value

Throws:
   IndexOutOfBoundsException

addTrait

```
public void addTrait(AMFDataTrait obj)
```

Add a trait to the trait cache

Parameters:
   obj - trait object

getTrait

```
public AMFDataTrait getTrait(int index)
   throws IndexOutOfBoundsException
```

Get a trait from the trait cache

Parameters:

index - index

Returns:
trait object

Throws:
`IndexOutOfBoundsException`

com.wowza.wms.amf
Class AMFDataContextSerialize

```
java.lang.Object
    │
    +-com.wowza.wms.amf.AMFDataContextSerialize
```

public class **AMFDataContextSerialize**
extends Object

AMF context used for serialization

Constructor Summary

public	**AMFDataContextSerialize**() Constructor
public	**AMFDataContextSerialize**(int objectEncoding) Contructor with object encoding, see AMFData.AMF_LEVEL*

Method Summary

int	**getObjectEncoding**() Get object encoding, see AMFData.AMF_LEVEL*
int	**getObjectReference**(Object obj) Get index of object in object cache
int	**getStringReference**(String str) Get index of string item in string cache
int	**getTargetEncoding**() Get target encoding, see AMFData.AMF_LEVEL*
int	**getTraitReference**(AMFDataTrait obj) Get index of trait object in trait cache
boolean	**isAMF0**() Is context AMF0
boolean	**isAMF3**() Is context AMF3
void	**setObjectEncoding**(int objectEncoding) Set object encoding, see AMFData.AMF_LEVEL*
void	**setTargetEncoding**(int targetEncoding) Set target encoding, , see AMFData.AMF_LEVEL*
void	**writeString**(java.io.DataOutputStream out, String str) Write a stream to the output buffer

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

AMFDataContextSerialize

public **AMFDataContextSerialize**()

> Constructor

AMFDataContextSerialize

public **AMFDataContextSerialize**(int objectEncoding)

> Contructor with object encoding, see AMFData.AMF_LEVEL*

> **Parameters:**
> > objectEncoding - object encoding, see AMFData.AMF_LEVEL*

Methods

getObjectEncoding

public int **getObjectEncoding**()

> Get object encoding, see AMFData.AMF_LEVEL*

> **Returns:**
> > object encoding, see AMFData.AMF_LEVEL*

setObjectEncoding

public void **setObjectEncoding**(int objectEncoding)

> Set object encoding, see AMFData.AMF_LEVEL*

> **Parameters:**
> > objectEncoding - object encoding, see AMFData.AMF_LEVEL*

getTargetEncoding

public int **getTargetEncoding**()

> Get target encoding, see AMFData.AMF_LEVEL*

> **Returns:**
> > target encoding, see AMFData.AMF_LEVEL*

setTargetEncoding

public void **setTargetEncoding**(int targetEncoding)

> Set target encoding, , see AMFData.AMF_LEVEL*

Parameters:
>   `targetEncoding` - target encoding, , see AMFData.AMF_LEVEL*

isAMF3

`public boolean ` **`isAMF3`**`()`

> Is context AMF3

> **Returns:**
> > true, if AMF3

isAMF0

`public boolean ` **`isAMF0`**`()`

> Is context AMF0

> **Returns:**
> > true, if AMF0

getStringReference

`public int ` **`getStringReference`**`(String str)`

> Get index of string item in string cache

> **Parameters:**
> > `str` - string value

> **Returns:**
> > index

getObjectReference

`public int ` **`getObjectReference`**`(Object obj)`

> Get index of object in object cache

> **Parameters:**
> > `obj` - object value

> **Returns:**
> > index

getTraitReference

`public int ` **`getTraitReference`**`(`[AMFDataTrait](#)` obj)`

> Get index of trait object in trait cache

> **Parameters:**
> > `obj` - trait object

> **Returns:**
> > index

writeString

```
public void writeString(java.io.DataOutputStream out,
        String str)
```

Write a stream to the output buffer

Parameters:
out - output buffer
str - string value

writeString

```
public void writeString(java.io.DataOutputStream out,
        String str)
```

Write a stream to the output buffer

com.wowza.wms.amf
Class AMFDataItem

```
java.lang.Object
    |
    +-com.wowza.wms.amf.AMFData
        |
        +-com.wowza.wms.amf.AMFDataItem
```

public class **AMFDataItem**
extends [AMFData](#)

AMFDataItem: class for marshalling data between Wowza Pro server and Flash client. The type wraps native Java data types.

- DATA_TYPE_NUMBER = int, long, short, double, float
- DATA_TYPE_STRING = String
- DATA_TYPE_BOOLEAN = boolean
- DATA_TYPE_DATE = Date
- DATA_TYPE_NULL = 'null'

Create Native Java Types

```
AMFDataItem amfDataString = new AMFDataItem("here is my string"); // String
AMFDataItem amfDataLong = new AMFDataItem(1234L); // long
AMFDataItem amfDataDouble = new AMFDataItem(1.234); // double
AMFDataItem amfDataBoolean = new AMFDataItem(true); // boolean
AMFDataItem amfDataNull = new AMFDataItem(); // null
```

Get Native Java Types

```
String dataString = amfDataString.getType()==AMFData.DATA_TYPE_LONG_STRING?
                    amfDataString.toString():"";

long dataLong = amfDataLong.getType()==AMFData.DATA_TYPE_NUMBER?
                amfDataLong.longValue():0;

double dataDouble = amfDataDouble.getType()==AMFData.DATA_TYPE_NUMBER?
                    amfDataLong.doubleValue():0.0;

boolean dataBoolean = amfDataBoolean.getType()==AMFData.DATA_TYPE_BOOLEAN?
                      amfDataLong.booleanValue():false;

Object dataNull = amfDataNull.getType()==AMFData.DATA_TYPE_NULL?
                  null:null;
```

Field Summary

public static final	DATEFORMAT	
	Value: **EEE, dd MMM yyyy HH:mm:ss**	
protected	fastDateFormat	

Fields inherited from class `com.wowza.wms.amf.AMFData`

AMF_LEVEL0, AMF_LEVEL3, DATA_TYPE_AMF3, DATA_TYPE_AMF3_ARRAY, DATA_TYPE_AMF3_BOOLEAN_FALSE, DATA_TYPE_AMF3_BOOLEAN_TRUE, DATA_TYPE_AMF3_BYTEARRAY, DATA_TYPE_AMF3_DATE, DATA_TYPE_AMF3_INTEGER, DATA_TYPE_AMF3_NULL, DATA_TYPE_AMF3_NUMBER, DATA_TYPE_AMF3_OBJECT, DATA_TYPE_AMF3_STRING, DATA_TYPE_AMF3_UNDEFINED, DATA_TYPE_AMF3_XML_LEGACY, DATA_TYPE_AMF3_XML_TOP, DATA_TYPE_ARRAY, DATA_TYPE_AS_OBJECT, DATA_TYPE_BOOLEAN, DATA_TYPE_BYTEARRAY, DATA_TYPE_CUSTOM_CLASS, DATA_TYPE_DATE, DATA_TYPE_INTEGER, DATA_TYPE_LONG_STRING, DATA_TYPE_MIXED_ARRAY, DATA_TYPE_MOVIE_CLIP, DATA_TYPE_NULL, DATA_TYPE_NUMBER, DATA_TYPE_OBJECT, DATA_TYPE_OBJECT_END, DATA_TYPE_RECORDSET, DATA_TYPE_REFERENCE_OBJECT, DATA_TYPE_STRING, DATA_TYPE_UNDEFINED, DATA_TYPE_UNKNOWN, DATA_TYPE_XML, DATA_TYPE_XML_TOP, MILLS_PER_HOUR, type

Constructor Summary

public	AMFDataItem()	
	Construct AMF type DATA_TYPE_NULL object	
public	AMFDataItem(String value)	
	Construct AMF type DATA_TYPE_STRING object	
public	AMFDataItem(int value)	
	Construct AMF type DATA_TYPE_NUMBER object	
public	AMFDataItem(long value)	
	Construct AMF type DATA_TYPE_NUMBER object	
public	AMFDataItem(double value)	
	Construct AMF type DATA_TYPE_NUMBER object	
public	AMFDataItem(boolean value)	
	Construct AMF type DATA_TYPE_BOOLEAN	
public	AMFDataItem(java.util.Date value)	
	Construct AMF type DATA_TYPE_DATE	
public	AMFDataItem(byte[] data)	
	Deserialize entire data array and create AMFDataItem object	
public	AMFDataItem(byte[] data, int offset, int size)	
	Deserialize data array starting at offest for size bytes and create AMFDataItem object	
public	AMFDataItem(java.nio.ByteBuffer data)	
	Deserialize entire data array and create AMFDataItem object	
public	AMFDataItem(java.nio.ByteBuffer data, AMFDataContextDeserialize context)	

Method Summary

boolean	**booleanValue**() Return object as boolean.
byte	**byteValue**() Return object as byte.
java.util.Date	**dateValue**() Return object as Date.
void	**deserialize**(java.nio.ByteBuffer data)
void	**deserialize**(java.nio.ByteBuffer data, AMFDataContextDeserialize context)
double	**doubleValue**() Return object as double.
float	**floatValue**() Return object as float.
Object	**getValue**() Return value as Java class
int	**intValue**() Return object as int.
long	**longValue**() Return object as long.
byte[]	**serialize**()
byte[]	**serialize**(AMFDataContextSerialize context)
void	**serialize**(java.io.DataOutputStream out)
void	**serialize**(java.io.DataOutputStream out, AMFDataContextSerialize context)
void	**serialize**(java.io.DataOutputStream out, int objectEncoding)
byte[]	**serialize**(int objectEncoding)
short	**shortValue**() Return object as short.
String	**toString**() Return object as formatted string

Methods inherited from class `com.wowza.wms.amf.AMFData`

createContextDeserialize, createContextDeserialize, createContextSerialize, createContextSerialize, deserialize, deserialize, deserializeInnerObject, getReference, getType, getValue, isAMF3Start, isArrayStart, isByteArrayStart, isMixedArrayStart, isObjEnd, isObjStart, peekByte, serialize, serialize, serialize, serialize, serialize, serialize, setType, skipByte, testNextByte, triggerAMF3Switch

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

DATEFORMAT

```
public static final java.lang.String DATEFORMAT
```

Constant value: **EEE, dd MMM yyyy HH:mm:ss**

fastDateFormat

```
protected org.apache.commons.lang.time.FastDateFormat fastDateFormat
```

Constructors

AMFDataItem

```
public AMFDataItem()
```

Construct AMF type DATA_TYPE_NULL object

AMFDataItem

```
public AMFDataItem(String value)
```

Construct AMF type DATA_TYPE_STRING object

Parameters:
value - String value

AMFDataItem

```
public AMFDataItem(int value)
```

Construct AMF type DATA_TYPE_NUMBER object

Parameters:
value - int value

AMFDataItem

```
public AMFDataItem(long value)
```

(continued from last page)

Construct AMF type DATA_TYPE_NUMBER object

Parameters:
    `value` - long value

AMFDataItem

`public **AMFDataItem**(double value)`

Construct AMF type DATA_TYPE_NUMBER object

Parameters:
    `value` - double value

AMFDataItem

`public **AMFDataItem**(boolean value)`

Construct AMF type DATA_TYPE_BOOLEAN

Parameters:
    `value` - boolean value

AMFDataItem

`public **AMFDataItem**(java.util.Date value)`

Construct AMF type DATA_TYPE_DATE

Parameters:
    `value` - Date value

AMFDataItem

`public **AMFDataItem**(byte[] data)`

Deserialize entire data array and create AMFDataItem object

Parameters:
    `data` - binary data

AMFDataItem

```
public AMFDataItem(byte[] data,
                   int offset,
                   int size)
```

Deserialize data array starting at offest for size bytes and create AMFDataItem object

Parameters:
    `data` - binary data
    `offset` - starting offset into data
    `size` - size of data to deserialize

AMFDataItem

`public **AMFDataItem**(java.nio.ByteBuffer data)`

Deserialize entire data array and create AMFDataItem object

Parameters:

`data` - binary data

AMFDataItem

public **AMFDataItem**(java.nio.ByteBuffer data,
                      AMFDataContextDeserialize context)

Methods

longValue

public long **longValue**()

Return object as long. Valid object types are DATA_TYPE_NUMBER and DATA_TYPE_STRING.

Returns:

long value or 0 if failure

---

intValue

public int **intValue**()

Return object as int. Valid object types are DATA_TYPE_NUMBER and DATA_TYPE_STRING.

Returns:

int value or 0 if failure

---

doubleValue

public double **doubleValue**()

Return object as double. Valid object types are DATA_TYPE_NUMBER and DATA_TYPE_STRING.

Returns:

double value or 0 if failure

---

floatValue

public float **floatValue**()

Return object as float. Valid object types are DATA_TYPE_NUMBER and DATA_TYPE_STRING.

Returns:

float value or 0 if failure

---

shortValue

public short **shortValue**()

Return object as short. Valid object types are DATA_TYPE_NUMBER and DATA_TYPE_STRING.

Returns:

short value or 0 if failure

byteValue

```
public byte byteValue()
```

Return object as byte. Valid object types are DATA_TYPE_NUMBER and DATA_TYPE_STRING.

Returns:
byte value or 0 if failure

dateValue

```
public java.util.Date dateValue()
```

Return object as Date. Valid object types are DATA_TYPE_DATE.

Returns:
Date value or null if failure

booleanValue

```
public boolean booleanValue()
```

Return object as boolean. Valid object types are DATA_TYPE_BOOLEAN and DATA_TYPE_STRING.

Returns:
boolean value or false if failure

deserialize

```
public void deserialize(java.nio.ByteBuffer data)
```

Deserialize data in byte buffer

deserialize

```
public void deserialize(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Deserialize data in byte buffer

getValue

```
public Object getValue()
```

Return value as Java class

toString

```
public String toString()
```

Return object as formatted string

serialize

```
public void serialize(java.io.DataOutputStream out)
```

Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        int objectEncoding)
```

> Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        AMFDataContextSerialize context)
```

> Serialize object to output stream

serialize

```
public byte[] serialize()
```

> Serial object to byte array

serialize

```
public byte[] serialize(int objectEncoding)
```

> Serial object to byte array

serialize

```
public byte[] serialize(AMFDataContextSerialize context)
```

> Serial object to byte array

com.wowza.wms.amf
Class AMFDataList

```
java.lang.Object
   |
   +-com.wowza.wms.amf.AMFData
        |
        +-com.wowza.wms.amf.AMFDataList
```

---
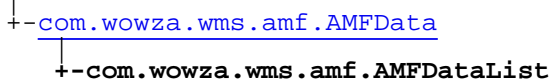
public class **AMFDataList**
extends [AMFData](#)

AMFDataItem: class for marshalling data between Wowza Pro server and Flash client. This class is for internal server marshalling of AMF event messages between the Flash client and Wowza Pro server.

NOTE: There is a slight difference between this class and AMFDataArray. This class when serialized/deserialized does NOT include the DATA_TYPE_ARRAY header (byte) and array size (int). AMF formatted functions use this class since they do not include these elements.

Fields inherited from class `com.wowza.wms.amf.AMFData`

[AMF_LEVEL0](#), [AMF_LEVEL3](#), [DATA_TYPE_AMF3](#), [DATA_TYPE_AMF3_ARRAY](#), [DATA_TYPE_AMF3_BOOLEAN_FALSE](#), [DATA_TYPE_AMF3_BOOLEAN_TRUE](#), [DATA_TYPE_AMF3_BYTEARRAY](#), [DATA_TYPE_AMF3_DATE](#), [DATA_TYPE_AMF3_INTEGER](#), [DATA_TYPE_AMF3_NULL](#), [DATA_TYPE_AMF3_NUMBER](#), [DATA_TYPE_AMF3_OBJECT](#), [DATA_TYPE_AMF3_STRING](#), [DATA_TYPE_AMF3_UNDEFINED](#), [DATA_TYPE_AMF3_XML_LEGACY](#), [DATA_TYPE_AMF3_XML_TOP](#), [DATA_TYPE_ARRAY](#), [DATA_TYPE_AS_OBJECT](#), [DATA_TYPE_BOOLEAN](#), [DATA_TYPE_BYTEARRAY](#), [DATA_TYPE_CUSTOM_CLASS](#), [DATA_TYPE_DATE](#), [DATA_TYPE_INTEGER](#), [DATA_TYPE_LONG_STRING](#), [DATA_TYPE_MIXED_ARRAY](#), [DATA_TYPE_MOVIE_CLIP](#), [DATA_TYPE_NULL](#), [DATA_TYPE_NUMBER](#), [DATA_TYPE_OBJECT](#), [DATA_TYPE_OBJECT_END](#), [DATA_TYPE_RECORDSET](#), [DATA_TYPE_REFERENCE_OBJECT](#), [DATA_TYPE_STRING](#), [DATA_TYPE_UNDEFINED](#), [DATA_TYPE_UNKNOWN](#), [DATA_TYPE_XML](#), [DATA_TYPE_XML_TOP](#), [MILLS_PER_HOUR](#), [type](#)

Constructor Summary

public	[AMFDataList](#)() Create empty AMFDataList object
public	[AMFDataList](#)(byte[] data) Deserialize entire data array and create AMFDataList object
public	[AMFDataList](#)(byte[] data, int offset, int size) Deserialize data array starting at offest for size bytes and create AMFDataList object
public	[AMFDataList](#)(java.nio.ByteBuffer data) Deserialize entire data array and create AMFDataList object
public	[AMFDataList](#)(java.nio.ByteBuffer data, [AMFDataContextDeserialize](#) context)

Method Summary

void	[add](#)([AMFData](#) data) Append a new item onto the array

---

void	`add`(boolean data) Append a boolean (will be wrapped in an AMFDataItem object)
void	`add`(java.util.Date data) Append a date (will be wrapped in an AMFDataItem object)
void	`add`(double data) Append a double (will be wrapped in an AMFDataItem object)
void	`add`(int data) Append a int (will be wrapped in an AMFDataItem object)
void	`add`(int index, `AMFData` data) Insert an item into the array
void	`add`(int index, boolean data) Insert a boolean value (will be wrapped in an AMFDataItem object)
void	`add`(int index, java.util.Date data) Insert a date value (will be wrapped in an AMFDataItem object)
void	`add`(int index, double data) Insert a double value (will be wrapped in an AMFDataItem object)
void	`add`(int index, int data) Insert a int value (will be wrapped in an AMFDataItem object)
void	`add`(int index, long data) Insert a long value (will be wrapped in an AMFDataItem object)
void	`add`(int index, String data) Insert a string value (will be wrapped in an AMFDataItem object)
void	`add`(long data) Append a long (will be wrapped in an AMFDataItem object)
void	`add`(String data) Append a string (will be wrapped in an AMFDataItem object)
void	`deserialize`(java.nio.ByteBuffer data)
void	`deserialize`(java.nio.ByteBuffer data, `AMFDataContextDeserialize` context)
`AMFData`	`get`(int index) Get item at index
boolean	`getBoolean`(int index) Get item at index return as boolean
byte	`getByte`(int index) Get item at index return as byte
java.util.Date	`getDate`(int index) Get item at index return as Date
double	`getDouble`(int index) Get item at index return as double

float	**getFloat**(int index)	
	Get item at index return as float	
int	**getInt**(int index)	
	Get item at index return as int	
long	**getLong**(int index)	
	Get item at index return as long	
AMFDataObj	**getObject**(int index)	
	Get item at index return as AMFDataObj	
short	**getShort**(int index)	
	Get item at index return as short	
String	**getString**(int index)	
	Get item at index return as String	
int	**getType**(int index)	
	Get type of item at index.	
Object	**getValue**()	
AMFData	**remove**(int index)	
	Remove an element from the AMFDataList object	
byte[]	**serialize**()	
byte[]	**serialize**(**AMFDataContextSerialize** context)	
byte[]	**serialize**(**AMFDataContextSerialize** context, byte[] prepend)	
void	**serialize**(java.io.DataOutputStream out)	
void	**serialize**(java.io.DataOutputStream out, **AMFDataContextSerialize** context)	
void	**serialize**(java.io.DataOutputStream out, **AMFDataContextSerialize** context, byte[] prepend)	
void	**serialize**(java.io.DataOutputStream out, int objectEncoding)	
byte[]	**serialize**(int objectEncoding)	
void	**set**(int index, **AMFData** data)	
	Set an array item	
void	**set**(int index, boolean data)	
	Set an boolean value (will be wrapped in an AMFDataItem object)	
void	**set**(int index, java.util.Date data)	
	Set an date value (will be wrapped in an AMFDataItem object)	
void	**set**(int index, double data)	
	Set an double value (will be wrapped in an AMFDataItem object)	

void	set(int index, int data)	
	Set an int value (will be wrapped in an AMFDataItem object)	
void	set(int index, long data)	
	Set an long value (will be wrapped in an AMFDataItem object)	
void	set(int index, String data)	
	Set an string value (will be wrapped in an AMFDataItem object)	
int	size()	
	Returns the number of items in array	
String	toString()	
	Return object as formatted string	

Methods inherited from class com.wowza.wms.amf.AMFData

createContextDeserialize, createContextDeserialize, createContextSerialize, createContextSerialize, deserialize, deserialize, deserializeInnerObject, getReference, getType, getValue, isAMF3Start, isArrayStart, isByteArrayStart, isMixedArrayStart, isObjEnd, isObjStart, peekByte, serialize, serialize, serialize, serialize, serialize, serialize, setType, skipByte, testNextByte, triggerAMF3Switch

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

AMFDataList

public **AMFDataList**()

Create empty AMFDataList object

AMFDataList

public **AMFDataList**(byte[] data)

Deserialize entire data array and create AMFDataList object

Parameters:
data - binary data

AMFDataList

public **AMFDataList**(byte[] data,
                     int offset,
                     int size)

Deserialize data array starting at offest for size bytes and create AMFDataList object

Parameters:
data - binary data
offset - starting offset into data

> `size` - size of data to deserialize

AMFDataList

public **AMFDataList**(java.nio.ByteBuffer data)

Deserialize entire data array and create AMFDataList object

Parameters:
> `data` - binary data

AMFDataList

public **AMFDataList**(java.nio.ByteBuffer data,
                    AMFDataContextDeserialize context)

Methods

remove

public AMFData **remove**(int index)

Remove an element from the AMFDataList object

Parameters:
> `index` - index

Returns:
> removed element

size

public int **size**()

Returns the number of items in array

Returns:
> number of items in array

add

public void **add**(AMFData data)

Append a new item onto the array

Parameters:
> `data` - AMFData object

add

public void **add**(String data)

Append a string (will be wrapped in an AMFDataItem object)

Parameters:
> `data` - string value

add

```
public void add(double data)
```

> Append a double (will be wrapped in an AMFDataItem object)
>
> **Parameters:**
> > `data` - double value

add

```
public void add(int data)
```

> Append a int (will be wrapped in an AMFDataItem object)
>
> **Parameters:**
> > `data` - int value

add

```
public void add(long data)
```

> Append a long (will be wrapped in an AMFDataItem object)
>
> **Parameters:**
> > `data` - long value

add

```
public void add(java.util.Date data)
```

> Append a date (will be wrapped in an AMFDataItem object)
>
> **Parameters:**
> > `data` - date value

add

```
public void add(boolean data)
```

> Append a boolean (will be wrapped in an AMFDataItem object)
>
> **Parameters:**
> > `data` - boolean value

add

```
public void add(int index,
        AMFData data)
```

> Insert an item into the array
>
> **Parameters:**
> > `index` - index
> > `data` - AMFData object

add

```
public void add(int index,
            String data)
```

Insert a string value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - string value

add

```
public void add(int index,
            double data)
```

Insert a double value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - double value

add

```
public void add(int index,
            int data)
```

Insert a int value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - int value

add

```
public void add(int index,
            long data)
```

Insert a long value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - long value

add

```
public void add(int index,
            java.util.Date data)
```

Insert a date value (will be wrapped in an AMFDataItem object)

Parameters:
    index - index
    data - date value

add

```
public void add(int index,
            boolean data)
```

Insert a boolean value (will be wrapped in an AMFDataItem object)

Parameters:
index - index
data - boolean value

set

```
public void set(int index,
        AMFData data)
```

Set an array item

Parameters:
data - AMFData object

set

```
public void set(int index,
        String data)
```

Set an string value (will be wrapped in an AMFDataItem object)

Parameters:
index - index
data - string value

set

```
public void set(int index,
        double data)
```

Set an double value (will be wrapped in an AMFDataItem object)

Parameters:
index - index
data - double value

set

```
public void set(int index,
        int data)
```

Set an int value (will be wrapped in an AMFDataItem object)

Parameters:
index - index
data - int value

set

```
public void set(int index,
        long data)
```

Set an long value (will be wrapped in an AMFDataItem object)

Parameters:
index - index
data - long value

set

```
public void set(int index,
        java.util.Date data)
```

Set an date value (will be wrapped in an AMFDataItem object)

Parameters:

index - index
data - date value

set

```
public void set(int index,
        boolean data)
```

Set an boolean value (will be wrapped in an AMFDataItem object)

Parameters:

index - index
data - boolean value

getType

```
public int getType(int index)
```

Get type of item at index. Return AMFData.DATA_TYPE_UNKNOWN if item does not exist

Parameters:

index

Returns:

type of item at index

get

```
public AMFData get(int index)
```

Get item at index

Parameters:

index

Returns:

Returns AMFData object or null if out of bounds

getString

```
public String getString(int index)
```

Get item at index return as String

Parameters:

index

Returns:

Return item as String or null if out of bounds

getInt

`public int` **`getInt`**`(int index)`

Get item at index return as int

Parameters:
index

Returns:
Return item as int or 0 if out of bounds

getLong

`public long` **`getLong`**`(int index)`

Get item at index return as long

Parameters:
index

Returns:
Return item as long or 0 if out of bounds

getDouble

`public double` **`getDouble`**`(int index)`

Get item at index return as double

Parameters:
index

Returns:
Return item as double or 0 if out of bounds

getFloat

`public float` **`getFloat`**`(int index)`

Get item at index return as float

Parameters:
index

Returns:
Return item as float or 0 if out of bounds

getShort

`public short` **`getShort`**`(int index)`

Get item at index return as short

Parameters:
index

Returns:
    Return item as short or 0 if out of bounds

getByte

`public byte` **`getByte`**`(int index)`

Get item at index return as byte

Parameters:
    index

Returns:
    Return item as byte or 0 if out of bounds

getBoolean

`public boolean` **`getBoolean`**`(int index)`

Get item at index return as boolean

Parameters:
    index

Returns:
    Return item as boolean or false if out of bounds

getDate

`public java.util.Date` **`getDate`**`(int index)`

Get item at index return as Date

Parameters:
    index

Returns:
    Return item as Date or null if out of bounds

getObject

`public` [AMFDataObj](#) **`getObject`**`(int index)`

Get item at index return as AMFDataObj

Parameters:
    index

Returns:
    Return item as AMFDataObj or null if out of bounds

deserialize

`public void` **`deserialize`**`(java.nio.ByteBuffer data)`

Deserialize data in byte buffer

deserialize

```
public void deserialize(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

Deserialize data in byte buffer

serialize

```
public void serialize(java.io.DataOutputStream out)
```

Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        int objectEncoding)
```

Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        AMFDataContextSerialize context)
```

Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        AMFDataContextSerialize context,
        byte[] prepend)
```

serialize

```
public byte[] serialize()
```

Serial object to byte array

serialize

```
public byte[] serialize(int objectEncoding)
```

Serial object to byte array

serialize

```
public byte[] serialize(AMFDataContextSerialize context)
```

Serial object to byte array

serialize

```
public byte[] serialize(AMFDataContextSerialize context,
        byte[] prepend)
```

getValue

`public Object `**`getValue`**`()`

>   Convert object to Java native class

toString

`public String `**`toString`**`()`

>   Return object as formatted string

getValue

`public Object `**`getValue`**`()`

com.wowza.wms.amf
Class AMFDataMixedArray

```
java.lang.Object
    |
    +-com.wowza.wms.amf.AMFData
        |
        +-com.wowza.wms.amf.AMFDataObj
            |
            +-com.wowza.wms.amf.AMFDataMixedArray
```

All Implemented Interfaces:
> IAMFDataObj

---

public class **AMFDataMixedArray**
extends AMFDataObj

AMFDataMixedArray: class for marshalling data between Wowza Pro server and Flash client. Array of mixed data types. An Array object created in the Flash client is wrapped in this data type when sent to the Wowza Pro server.

Create Array of Strings

```
AMFDataMixedArray amfDataMixedArray = new AMFDataMixedArray();

amfDataMixedArray.put("0", "item1");
amfDataMixedArray.put("1", "item2");
amfDataMixedArray.put("2", "item3");
```

Iterate Mixed Array

```
AMFDataMixedArray amfDataMixedArray;

int len = amfDataMixedArray.size();
for(int i=0;i<len;i++)
{
        String value = amfDataMixedArray.getString(i);
        int itemType = amfDataMixedArray.getType(i);
        WMSLoggerFactory.getLogger(null).debug("item:
["+i+":"+amfDataMixedArray.getKey(i)+"]="+value+" type:"+itemType);
}
```

NOTE: A AMFDataMixedArray is exactly the same as a AMFDataObj except its type is DATA_TYPE_MIXED_ARRAY.

This objects acts like a Map and a List at the same time. As items are added by key the order and position of each object is recorded. Objects can be retrieved either by key or by index.

Fields inherited from class `com.wowza.wms.amf.AMFDataObj`
`DECODE_OBJ_REF`, `DECODE_TRAITS`, `DECODE_TRAITS_EXT`, `DECODE_TRAITS_REF`, `DECODE_UNDEFINED`, `members`, `order`, `trait`

Fields inherited from class `com.wowza.wms.amf.AMFData`
`AMF_LEVEL0`, `AMF_LEVEL3`, `DATA_TYPE_AMF3`, `DATA_TYPE_AMF3_ARRAY`, `DATA_TYPE_AMF3_BOOLEAN_FALSE`, `DATA_TYPE_AMF3_BOOLEAN_TRUE`, `DATA_TYPE_AMF3_BYTEARRAY`, `DATA_TYPE_AMF3_DATE`, `DATA_TYPE_AMF3_INTEGER`, `DATA_TYPE_AMF3_NULL`, `DATA_TYPE_AMF3_NUMBER`, `DATA_TYPE_AMF3_OBJECT`, `DATA_TYPE_AMF3_STRING`, `DATA_TYPE_AMF3_UNDEFINED`, `DATA_TYPE_AMF3_XML_LEGACY`, `DATA_TYPE_AMF3_XML_TOP`, `DATA_TYPE_ARRAY`, `DATA_TYPE_AS_OBJECT`, `DATA_TYPE_BOOLEAN`, `DATA_TYPE_BYTEARRAY`, `DATA_TYPE_CUSTOM_CLASS`, `DATA_TYPE_DATE`, `DATA_TYPE_INTEGER`, `DATA_TYPE_LONG_STRING`, `DATA_TYPE_MIXED_ARRAY`, `DATA_TYPE_MOVIE_CLIP`, `DATA_TYPE_NULL`, `DATA_TYPE_NUMBER`, `DATA_TYPE_OBJECT`, `DATA_TYPE_OBJECT_END`, `DATA_TYPE_RECORDSET`, `DATA_TYPE_REFERENCE_OBJECT`, `DATA_TYPE_STRING`, `DATA_TYPE_UNDEFINED`, `DATA_TYPE_UNKNOWN`, `DATA_TYPE_XML`, `DATA_TYPE_XML_TOP`, `MILLS_PER_HOUR`, `type`

Constructor Summary

`public`	`AMFDataMixedArray()` Create empty AMFDataMixedArray object
`public`	`AMFDataMixedArray(byte[] data)` Deserialize entire data array and create AMFDataMixedArray object
`public`	`AMFDataMixedArray(byte[] data, int offset, int size)` Deserialize data array starting at offest for size bytes and create AMFDataMixedArray object
`public`	`AMFDataMixedArray(java.nio.ByteBuffer data)` Deserialize entire data array and create AMFDataMixedArray object
`public`	`AMFDataMixedArray(java.nio.ByteBuffer data, AMFDataContextDeserialize context)`

Method Summary

`void`	`deserialize(java.nio.ByteBuffer data)`
`void`	`deserialize(java.nio.ByteBuffer data, AMFDataContextDeserialize context)`
`void`	`serialize(java.io.DataOutputStream out)`
`void`	`serialize(java.io.DataOutputStream out, AMFDataContextSerialize context)`
`void`	`serialize(java.io.DataOutputStream out, int objectEncoding)`
`String`	`toString()` Return object as formatted string

Methods inherited from class `com.wowza.wms.amf.AMFDataObj`

containsKey, deserialize, deserialize, get, get, getBoolean, getBoolean, getByte, getByte, getClassName, getDate, getDate, getDouble, getDouble, getFloat, getFloat, getInt, getInt, getKey, getKeys, getLong, getLong, getObject, getObject, getShort, getShort, getString, getString, getTrait, getValue, put, put, put, put, put, put, put, remove, remove, serialize, serialize, serialize, serialize, serialize, serialize, setClassName, size, toString

Methods inherited from class `com.wowza.wms.amf.AMFData`

createContextDeserialize, createContextDeserialize, createContextSerialize, createContextSerialize, deserialize, deserialize, deserializeInnerObject, getReference, getType, getValue, isAMF3Start, isArrayStart, isByteArrayStart, isMixedArrayStart, isObjEnd, isObjStart, peekByte, serialize, serialize, serialize, serialize, serialize, serialize, setType, skipByte, testNextByte, triggerAMF3Switch

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `com.wowza.wms.amf.IAMFDataObj`

containsKey, get, get, getBoolean, getBoolean, getByte, getByte, getDate, getDate, getDouble, getDouble, getFloat, getFloat, getInt, getInt, getKey, getKeys, getLong, getLong, getObject, getObject, getShort, getShort, getString, getString, put, put, put, put, put, put, put, remove, remove

Constructors

AMFDataMixedArray

public **AMFDataMixedArray**()

Create empty AMFDataMixedArray object

AMFDataMixedArray

public **AMFDataMixedArray**(byte[] data)

Deserialize entire data array and create AMFDataMixedArray object

Parameters:
data - binary data

AMFDataMixedArray

public **AMFDataMixedArray**(byte[] data,
                           int offset,
                           int size)

Deserialize data array starting at offest for size bytes and create AMFDataMixedArray object

Parameters:
data - binary data

> offset - starting offset into data
> size - size of data to deserialize

AMFDataMixedArray

public **AMFDataMixedArray**(java.nio.ByteBuffer data)

Deserialize entire data array and create AMFDataMixedArray object

Parameters:
data - binary data

AMFDataMixedArray

public **AMFDataMixedArray**(java.nio.ByteBuffer data,
                            AMFDataContextDeserialize context)

Methods

deserialize

public void **deserialize**(java.nio.ByteBuffer data)

Deserialize data in byte buffer

---

deserialize

public void **deserialize**(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)

Deserialize data in byte buffer

---

serialize

public void **serialize**(java.io.DataOutputStream out)

Serialize object to output stream

---

serialize

public void **serialize**(java.io.DataOutputStream out,
        int objectEncoding)

Serialize object to output stream

---

serialize

public void **serialize**(java.io.DataOutputStream out,
        AMFDataContextSerialize context)

Serialize object to output stream

---

toString

public String **toString**()

Return object as formatted string

com.wowza.wms.amf
Class AMFDataObj

```
java.lang.Object
    |
    +-com.wowza.wms.amf.AMFData
          |
          +-com.wowza.wms.amf.AMFDataObj
```
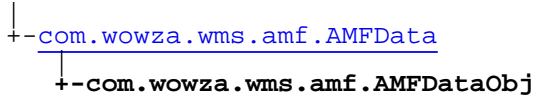
All Implemented Interfaces:
> IAMFDataObj

Direct Known Subclasses:
> AMFDataMixedArray

---

public class **AMFDataObj**
extends AMFData
implements IAMFDataObj

AMFDataObj: class for marshalling data between Wowza Pro server and Flash client. Object with attributes. Implementation is very similar to a java.util.Map. Each parameter is an item in the map.

Create AMFDataObj

```
AMFDataObj amfDataObj = new AMFDataObj();

amfDataObj.put("key1", "item1");
amfDataObj.put("key2", "item2");
amfDataObj.put("key3", "item3");
```

Iterate AMFDataObj

```
AMFDataObj amfDataObj;

List keys = amfDataObj.getKeys();
Iterator iter = keys.iterator();
while(iter.hasNext())
{
        String key = (String)iter.next();
        AMFData value = amfDataObj.get(key);
        int itemType = value.getType();
        WMSLoggerFactory.getLogger(null).debug(key+"="+value.toString()+"
(type:"+itemType+")");
}
```

Direct Access To Attributes

```
AMFDataObj amfDataObj;

// If you know the type you can access it directly
String dataString = amfDataObj.getString("stringData");
long dataLong = amfDataObj.getLong("longData");
double dataDouble = amfDataObj.getDouble("doubleData");
boolean dataBoolean = amfDataObj.getBoolean("booleanData");

// This illustrate how to decode the value if
// you don't know the type
AMFData myItemKey1 = amfDataObj.get("theData");
switch (myItemKey1.getType())
{
default:
case AMFDataItem.DATA_TYPE_UNDEFINED:
case AMFDataItem.DATA_TYPE_UNKNOWN:
case AMFDataItem.DATA_TYPE_NULL:
        // the value is null or undefined
        break;
case AMFDataItem.DATA_TYPE_NUMBER:
        double amfDataDouble = ((AMFDataItem)myItemKey1).doubleValue();
        break;
case AMFDataItem.DATA_TYPE_BOOLEAN:
        boolean amfDataBoolean = ((AMFDataItem)myItemKey1).booleanValue();
        break;
case AMFDataItem.DATA_TYPE_STRING:
        String amfDataString = ((AMFDataItem)myItemKey1).toString();
        break;
case AMFDataItem.DATA_TYPE_DATE:
        Date amfDataDate = ((AMFDataItem)myItemKey1).dateValue();
        break;
case AMFDataItem.DATA_TYPE_OBJECT:
        AMFDataObj amfDataValObj = (AMFDataObj)myItemKey1;
        break;
case AMFDataItem.DATA_TYPE_MIXED_ARRAY:
        AMFDataMixedArray amfDataMixedArray = (AMFDataMixedArray)myItemKey1;
        break;
case AMFDataItem.DATA_TYPE_ARRAY:
        AMFDataArray amfDataArray = (AMFDataArray)myItemKey1;
        break;
}
```

NOTE: A AMFDataObj is exactly the same as a AMFDataMixedArray except its type is DATA_TYPE_OBJECT.

Field Summary

public static final	**DECODE_OBJ_REF**	
	Value: **1**	
public static final	**DECODE_TRAITS**	
	Value: **4**	
public static final	**DECODE_TRAITS_EXT**	
	Value: **3**	
public static final	**DECODE_TRAITS_REF**	
	Value: **2**	
public static final	**DECODE_UNDEFINED**	
	Value: **0**	
protected	members	
protected	order	
protected	trait	

Fields inherited from class com.wowza.wms.amf.AMFData

AMF_LEVEL0, AMF_LEVEL3, DATA_TYPE_AMF3, DATA_TYPE_AMF3_ARRAY, DATA_TYPE_AMF3_BOOLEAN_FALSE, DATA_TYPE_AMF3_BOOLEAN_TRUE, DATA_TYPE_AMF3_BYTEARRAY, DATA_TYPE_AMF3_DATE, DATA_TYPE_AMF3_INTEGER, DATA_TYPE_AMF3_NULL, DATA_TYPE_AMF3_NUMBER, DATA_TYPE_AMF3_OBJECT, DATA_TYPE_AMF3_STRING, DATA_TYPE_AMF3_UNDEFINED, DATA_TYPE_AMF3_XML_LEGACY, DATA_TYPE_AMF3_XML_TOP, DATA_TYPE_ARRAY, DATA_TYPE_AS_OBJECT, DATA_TYPE_BOOLEAN, DATA_TYPE_BYTEARRAY, DATA_TYPE_CUSTOM_CLASS, DATA_TYPE_DATE, DATA_TYPE_INTEGER, DATA_TYPE_LONG_STRING, DATA_TYPE_MIXED_ARRAY, DATA_TYPE_MOVIE_CLIP, DATA_TYPE_NULL, DATA_TYPE_NUMBER, DATA_TYPE_OBJECT, DATA_TYPE_OBJECT_END, DATA_TYPE_RECORDSET, DATA_TYPE_REFERENCE_OBJECT, DATA_TYPE_STRING, DATA_TYPE_UNDEFINED, DATA_TYPE_UNKNOWN, DATA_TYPE_XML, DATA_TYPE_XML_TOP, MILLS_PER_HOUR, type

Constructor Summary

public	**AMFDataObj**() Create empty AMFDataObj object
public	**AMFDataObj**(byte[] data) Deserialize entire data array and create AMFDataObj object
public	**AMFDataObj**(byte[] data, int offset, int size) Deserialize data array starting at offest for size bytes and create AMFDataObj object
public	**AMFDataObj**(java.nio.ByteBuffer data) Deserialize entire data array and create AMFDataObj object
public	**AMFDataObj**(java.nio.ByteBuffer data, AMFDataContextDeserialize context)

Method Summary

boolean	containsKey(String name)
void	deserialize(java.nio.ByteBuffer data)
void	deserialize(java.nio.ByteBuffer data, AMFDataContextDeserialize context)
AMFData	get(int index)
AMFData	get(String name)
boolean	getBoolean(int index)
boolean	getBoolean(String name)
byte	getByte(int index)
byte	getByte(String name)
String	getClassName()
java.util.Date	getDate(int index)
java.util.Date	getDate(String name)
double	getDouble(int index)
double	getDouble(String name)
float	getFloat(int index)
float	getFloat(String name)
int	getInt(int index)
int	getInt(String name)
String	getKey(int index)
java.util.List	getKeys()
long	getLong(int index)
long	getLong(String name)
AMFDataObj	getObject(int index)

AMFDataObj	getObject(String name)
short	getShort(int index)
short	getShort(String name)
String	getString(int index)
String	getString(String name)
AMFDataTrait	getTrait()
Object	getValue()
void	put(String name, AMFData data)
void	put(String name, boolean data)
void	put(String name, java.util.Date data)
void	put(String name, double data)
void	put(String name, int data)
void	put(String name, long data)
void	put(String name, String data)
AMFData	remove(int index)
AMFData	remove(String name)
byte[]	serialize()
byte[]	serialize(AMFDataContextSerialize context)
void	serialize(java.io.DataOutputStream out)
void	serialize(java.io.DataOutputStream out, AMFDataContextSerialize context)
void	serialize(java.io.DataOutputStream out, int objectEncoding)
byte[]	serialize(int objectEncoding)
void	setClassName(String className)
int	size() Return the number of members of this object/array

String	[toString]( )() Return object as formatted string

Methods inherited from class [com.wowza.wms.amf.AMFData]( )

[createContextDeserialize]( ), [createContextDeserialize]( ), [createContextSerialize]( ), [createContextSerialize]( ), [deserialize]( ), [deserialize]( ), [deserializeInnerObject]( ), [getReference]( ), [getType]( ), [getValue]( ), [isAMF3Start]( ), [isArrayStart]( ), [isByteArrayStart]( ), [isMixedArrayStart]( ), [isObjEnd]( ), [isObjStart]( ), [peekByte]( ), [serialize]( ), [serialize]( ), [serialize]( ), [serialize]( ), [serialize]( ), [serialize]( ), [setType]( ), [skipByte]( ), [testNextByte]( ), [triggerAMF3Switch]( )

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface [com.wowza.wms.amf.IAMFDataObj]( )

[containsKey]( ), [get]( ), [get]( ), [getBoolean]( ), [getBoolean]( ), [getByte]( ), [getByte]( ), [getDate]( ), [getDate]( ), [getDouble]( ), [getDouble]( ), [getFloat]( ), [getFloat]( ), [getInt]( ), [getInt]( ), [getKey]( ), [getKeys]( ), [getLong]( ), [getLong]( ), [getObject]( ), [getObject]( ), [getShort]( ), [getShort]( ), [getString]( ), [getString]( ), [put]( ), [put]( ), [put]( ), [put]( ), [put]( ), [put]( ), [put]( ), [remove]( ), [remove]( )

Fields

DECODE_UNDEFINED

public static final int **DECODE_UNDEFINED**

Constant value: **0**

DECODE_OBJ_REF

public static final int **DECODE_OBJ_REF**

Constant value: **1**

DECODE_TRAITS_REF

public static final int **DECODE_TRAITS_REF**

Constant value: **2**

DECODE_TRAITS_EXT

public static final int **DECODE_TRAITS_EXT**

Constant value: **3**

DECODE_TRAITS

public static final int **DECODE_TRAITS**

Constant value: **4**

---

members

```
protected java.util.Map members
```

---

order

```
protected java.util.List order
```

---

trait

```
protected com.wowza.wms.amf.AMFDataTrait trait
```

Constructors

AMFDataObj

```
public AMFDataObj()
```

Create empty AMFDataObj object

AMFDataObj

```
public AMFDataObj(byte[] data)
```

Deserialize entire data array and create AMFDataObj object

Parameters:
data - binary data

AMFDataObj

```
public AMFDataObj(byte[] data,
                  int offset,
                  int size)
```

Deserialize data array starting at offest for size bytes and create AMFDataObj object

Parameters:
data - binary data
offset - starting offset into data
size - size of data to deserialize

AMFDataObj

```
public AMFDataObj(java.nio.ByteBuffer data)
```

Deserialize entire data array and create AMFDataObj object

Parameters:

---

data - binary data

AMFDataObj

```
public AMFDataObj(java.nio.ByteBuffer data,
                  AMFDataContextDeserialize context)
```

Methods

size

```
public int size()
```

Return the number of members of this object/array

Returns:
number of members

containsKey

```
public boolean containsKey(String name)
```

put

```
public void put(String name,
        AMFData data)
```

put

```
public void put(String name,
        String data)
```

put

```
public void put(String name,
        double data)
```

put

```
public void put(String name,
        int data)
```

put

```
public void put(String name,
        long data)
```

put

```
public void put(String name,
        java.util.Date data)
```

put

```
public void put(String name,
        boolean data)
```

getKeys

```
public java.util.List getKeys()
```

getKey

```
public String getKey(int index)
```

get

```
public AMFData get(String name)
```

get

```
public AMFData get(int index)
```

remove

```
public AMFData remove(String name)
```

remove

```
public AMFData remove(int index)
```

getString

```
public String getString(String name)
```

getInt

```
public int getInt(String name)
```

getLong

```
public long getLong(String name)
```

getShort

```
public short getShort(String name)
```

getDouble

```
public double getDouble(String name)
```

getFloat

```
public float getFloat(String name)
```

getByte

```
public byte getByte(String name)
```

getBoolean

```
public boolean getBoolean(String name)
```

getDate

```
public java.util.Date getDate(String name)
```

getObject

```
public AMFDataObj getObject(String name)
```

getString

```
public String getString(int index)
```

getInt

```
public int getInt(int index)
```

getLong

```
public long getLong(int index)
```

getShort

```
public short getShort(int index)
```

getByte

```
public byte getByte(int index)
```

getDouble

```
public double getDouble(int index)
```

getFloat

```
public float getFloat(int index)
```

getBoolean

```
public boolean getBoolean(int index)
```

getDate

```
public java.util.Date getDate(int index)
```

getObject

```
public AMFDataObj getObject(int index)
```

deserialize

```
public void deserialize(java.nio.ByteBuffer data)
```

> Deserialize data in byte buffer

deserialize

```
public void deserialize(java.nio.ByteBuffer data,
        AMFDataContextDeserialize context)
```

> Deserialize data in byte buffer

serialize

```
public void serialize(java.io.DataOutputStream out)
```

> Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        int objectEncoding)
```

> Serialize object to output stream

serialize

```
public void serialize(java.io.DataOutputStream out,
        AMFDataContextSerialize context)
```

> Serialize object to output stream

serialize

```
public byte[] serialize()
```

> Serial object to byte array

serialize

```
public byte[] serialize(int objectEncoding)
```

> Serial object to byte array

serialize

```
public byte[] serialize(AMFDataContextSerialize context)
```

> Serial object to byte array

getValue

```
public Object getValue()
```

> Convert object to Java native class

toString

```
public String toString()
```

> Return object as formatted string

getClassName

```
public String getClassName()
```

setClassName

```
public void setClassName(String className)
```

getTrait

```
public AMFDataTrait getTrait()
```

com.wowza.wms.amf
Class AMFDataTrait

```
java.lang.Object
    |
    +-com.wowza.wms.amf.AMFDataTrait
```

public class **AMFDataTrait**
extends Object

AMF trait used to describe an AMF class in AMF3

Constructor Summary

public	**AMFDataTrait**() Constructor

Method Summary

void	**addMember**(String member) Add a member
AMFDataTrait	**clone**() clone the trait
String	**getClassName**() Get class name
AMFData	**getInnerObj**() Get inner object
String	**getMember**(int i) Get member by index
int	**getMemberCount**() Get the number of members
java.util.List	**getMembers**() Get a list of trait members
boolean	**isDynamic**() Is class dynamic
boolean	**isMember**(String member) Return true if member of this trait
void	**setClassName**(String className) Set class name
void	**setDynamic**(boolean isDynamic) Set isDynamic
void	**setInnerObj**(AMFData innerObj) Set inner object

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Constructors

AMFDataTrait

public **AMFDataTrait**()

> Constructor

Methods

clone

public [AMFDataTrait](#) **clone**()

> clone the trait

addMember

public void **addMember**(String member)

> Add a member

> ### Parameters:
> member - member name

isMember

public boolean **isMember**(String member)

> Return true if member of this trait

> ### Parameters:
> member - member name

> ### Returns:
> true, if member

getMembers

public java.util.List **getMembers**()

> Get a list of trait members

> ### Returns:
> list of trait members

getMemberCount

public int **getMemberCount**()

Get the number of members

Returns:
number of members

getMember

```
public String getMember(int i)
```

Get member by index

Parameters:
i - index

Returns:
member name

getClassName

```
public String getClassName()
```

Get class name

Returns:
class name

setClassName

```
public void setClassName(String className)
```

Set class name

Parameters:
className - class name

isDynamic

```
public boolean isDynamic()
```

Is class dynamic

Returns:
true, if dynamic

setDynamic

```
public void setDynamic(boolean isDynamic)
```

Set isDynamic

Parameters:
isDynamic - true, if dynamic

getInnerObj

```
public AMFData getInnerObj()
```

Get inner object

Returns:
    inner object

setInnerObj

public void **setInnerObj**(AMFData innerObj)

Set inner object

Parameters:
    innerObj - inner object

com.wowza.wms.amf
Class AMFObj

```
java.lang.Object
    |
    +-com.wowza.wms.amf.AMFObj
```

public class **AMFObj**
extends Object

AMFObj: class that stores the state of channel between the client and the server.

Field Summary

public static final	**AMFDEBUGHEADERSIZE** Value: **false**
public static final	**WOWZDEBUGHEADERSIZE** Value: **false**

Constructor Summary

public	**AMFObj**(int id) Create new AMFObj for a given channel (id)
public	**AMFObj**(int id, int objectEncoding) Create new AMFObj for a given channel (id)

Method Summary

void	**addChunk**(byte[] buffer, int offset, int len) Add a chunk to the chunk list
void	**clearByteContainer**() Clear the byte container
long	**getAbsTimecode**() Get the absolute time code
int	**getByteContainerLevel**() Fake container for processing
long	**getChunkCounter**()
java.util.List	**getChunks**() Get the chunks that make up this packet
int	**getId**() Get channel id
int	**getObjectEncoding**()

int	**getSize**() Get packet size	
int	**getSrc**() Get stream id (0 if not stream data)	
long	**getTimecode**() Get timecode (milliseconds) sometimes relative	
int	**getType**() Get content type IVHost.CONTENTTYPE_*	
long	**incAbsTimecode**(long absTimecode) Increment the absolution timecode	
void	**incByteContainerLevel**(int byteContainerLevel) Fake container for processing	
boolean	**isByteContainerEmpty**() Fake container for processing	
boolean	**isByteContainerFull**() Fake container for processing	
boolean	**isLastSentAbsTimecode**()	
boolean	**isLongTimecode**() Get is a 32 bit timecode	
boolean	**isNew**() Is this a new packet.	
boolean	**isObjectEncodingAMF0**()	
boolean	**isObjectEncodingAMF3**()	
long	**setAbsTimecodeLong**(long absTimecode) Set the absolute timecode	
long	**setAbsTimecodeShort**(long absTimecode) Set the absolute timecode	
void	**setByteContainerLevel**(int byteContainerLevel) Fake container for processing	
void	**setChunkCounter**(long chunkCounter)	
void	**setId**(int id) Set channel id	
void	**setLastSentAbsTimecode**(boolean isLastSentAbsTimecode)	
void	**setLongTimecode**(boolean isLongTimecode) Set is a 32 bit timecode	
void	**setNew**(boolean isNew) Set is new packet	

	void	`setObjectEncoding(int objectEncoding)`
	void	`setSize(int size)` Set packet size
	void	`setSrc(int src)` Set stream id (0 if not stream data)
	void	`setTimecode(long timecode)` Set timecode (milliseconds) sometimes relative
	void	`setType(int type)` Set content type IVHost.CONTENTTYPE_*
	String	`toString()` Return object as formatted string

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

AMFDEBUGHEADERSIZE

```
public static final boolean AMFDEBUGHEADERSIZE
```

Constant value: **false**

WOWZDEBUGHEADERSIZE

```
public static final boolean WOWZDEBUGHEADERSIZE
```

Constant value: **false**

Constructors

AMFObj

```
public AMFObj(int id)
```

Create new AMFObj for a given channel (id)

Parameters:
    id - channel id

AMFObj

```
public AMFObj(int id,
              int objectEncoding)
```

Create new AMFObj for a given channel (id)

Parameters:
     id - channel id
     objectEncoding - object encoding level (AMF0 or AMF3)

Methods

getChunks

`public java.util.List getChunks()`

Get the chunks that make up this packet

Returns:
chunks that make up this packet

addChunk

```
public void addChunk(byte[] buffer,
        int offset,
        int len)
```

Add a chunk to the chunk list

Parameters:
buffer - buffer
offset - offset
len - length

getId

`public int getId()`

Get channel id

Returns:
channel id

setId

`public void setId(int id)`

Set channel id

Parameters:
id - channel id

getSize

`public int getSize()`

Get packet size

Returns:
packet size

setSize

`public void setSize(int size)`

Set packet size

Parameters:
> `size` - packet size

getType

`public int` **`getType`**`()`

> Get content type IVHost.CONTENTTYPE_*

> **Returns:**
> > content type

setType

`public void` **`setType`**`(int type)`

> Set content type IVHost.CONTENTTYPE_*

> **Parameters:**
> > `type` - content type

getSrc

`public int` **`getSrc`**`()`

> Get stream id (0 if not stream data)

> **Returns:**
> > stream id

setSrc

`public void` **`setSrc`**`(int src)`

> Set stream id (0 if not stream data)

> **Parameters:**
> > `src` - stream id

toString

`public String` **`toString`**`()`

> Return object as formatted string

getTimecode

`public long` **`getTimecode`**`()`

> Get timecode (milliseconds) sometimes relative

> **Returns:**
> > timecode (milliseconds)

setTimecode

public void **setTimecode**(long timecode)

Set timecode (milliseconds) sometimes relative

Parameters:
timecode - timecode (milliseconds)

isNew

public boolean **isNew**()

Is this a new packet. If new entire packet header needs to be sent

Returns:
is new packet

setNew

public void **setNew**(boolean isNew)

Set is new packet

Parameters:
isNew - is new packet

getAbsTimecode

public long **getAbsTimecode**()

Get the absolute time code

Returns:
absolute timecode

setAbsTimecodeLong

public long **setAbsTimecodeLong**(long absTimecode)

Set the absolute timecode

Parameters:
absTimecode - absolute timecode

Returns:
absolute timecode

setAbsTimecodeShort

public long **setAbsTimecodeShort**(long absTimecode)

Set the absolute timecode

Parameters:
absTimecode

Returns:

absolute timecode

incAbsTimecode

`public long ` **`incAbsTimecode`**`(long absTimecode)`

Increment the absolution timecode

Parameters:
> `absTimecode` - absolute timecode

Returns:
> absolute timecode

getByteContainerLevel

`public int ` **`getByteContainerLevel`**`()`

Fake container for processing

Returns:
> current container level

clearByteContainer

`public void ` **`clearByteContainer`**`()`

Clear the byte container

setByteContainerLevel

`public void ` **`setByteContainerLevel`**`(int byteContainerLevel)`

Fake container for processing

Parameters:
> `byteContainerLevel` - current container level

incByteContainerLevel

`public void ` **`incByteContainerLevel`**`(int byteContainerLevel)`

Fake container for processing

Parameters:
> `byteContainerLevel` - current container level

isByteContainerEmpty

`public boolean ` **`isByteContainerEmpty`**`()`

Fake container for processing

Returns:
> is container full

isByteContainerFull

`public boolean isByteContainerFull()`

Fake container for processing

Returns:
is container full

isLongTimecode

`public boolean isLongTimecode()`

Get is a 32 bit timecode

Returns:
true if 32 bit timecode

setLongTimecode

`public void setLongTimecode(boolean isLongTimecode)`

Set is a 32 bit timecode

Parameters:
`isLongTimecode` - is a 32 bit timecode

isLastSentAbsTimecode

`public boolean isLastSentAbsTimecode()`

setLastSentAbsTimecode

`public void setLastSentAbsTimecode(boolean isLastSentAbsTimecode)`

isObjectEncodingAMF3

`public boolean isObjectEncodingAMF3()`

isObjectEncodingAMF0

`public boolean isObjectEncodingAMF0()`

setObjectEncoding

`public void setObjectEncoding(int objectEncoding)`

getObjectEncoding

```
public int getObjectEncoding()
```

getChunkCounter

```
public long getChunkCounter()
```

setChunkCounter

```
public void setChunkCounter(long chunkCounter)
```

getObjectEncoding

```
public int getObjectEncoding()
```

com.wowza.wms.amf
Class AMFObjChunk

```
java.lang.Object
    │
    +-com.wowza.wms.amf.AMFObjChunk
```

public class **AMFObjChunk**
extends Object

Field Summary

public	[buffer](#)
public	[len](#)
public	[offset](#)

Constructor Summary

public	[AMFObjChunk](#)(byte[] buffer, int offset, int len)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

buffer

public byte **buffer**

offset

public int **offset**

len

public int **len**

Constructors

(continued from last page)

AMFObjChunk

```
public AMFObjChunk(byte[] buffer,
                   int offset,
                   int len)
```

AMFObjChunk

```
public AMFObjChunk(byte[] buffer,
```

com.wowza.wms.amf
Class AMFPacket

```
java.lang.Object
    │
    +-com.wowza.wms.amf.AMFPacket
```

public class **AMFPacket**
extends Object

AMFPacket: data container for data being transferred to and from the server from the Flash client. AMFPacket is also used to store data read/written to/from an flv file.

Constructor Summary

public	[AMFPacket](#)() Create new empty packet
public	[AMFPacket](#)(int type, int src, int size) Create new packet with given values

Method Summary

int	[addData](#)(byte[] data, int offset, int size) Add data to the packet
int	[addDataEx](#)(byte[] srcData, int srcOffset, int destOffset, int srcBytes) Add data to the packet
static int	[calcTotalPacketSize](#)(int packetSize, int headerSize, int chunkSize, int amfNumber, boolean isLongTimecode) Calculate the total packet size for given packet parameters
[AMFPacket](#)	[clone](#)()
long	[getAbsTimecode](#)() Get absolute timecode (milliseconds)
byte[]	[getData](#)() Get data as byte[]
java.nio.ByteBuffer	[getDataBuffer](#)() Get data as ByteBuffer
int	[getFirstByte](#)() Get first byte of data (used to peek into packet)
int	[getMissing](#)() Get the number of bytes remaining unfilled in the packet
int	[getSecondByte](#)() Get second byte of data (used to peek into packet)

long	**getSeq**() Get packet sequence number.	
int	**getSize**() Get packet size	
int	**getSrc**() Get stream id (0 if not stream data)	
long	**getTimecode**() Get timecode (milliseconds) relative to the *previous* packet.	
int	**getType**() Get content type IVHost.CONTENTTYPE_*	
boolean	**isAudio**() Is this an audio packet IVHost.CONTENTTYPE_AUDIO	
boolean	**isVideo**() Is this an audio packet IVHost.CONTENTTYPE_VIDEO	
void	**setAbsTimecode**(long absTimecode) Set absolute timecode (milliseconds)	
void	**setDataBuffer**(byte[] data) Set the data buffer to a byte array	
void	**setDataBuffer**(java.nio.ByteBuffer data) Set the data for this packet	
void	**setSeq**(long seq) Set packet sequence.	
void	**setSize**(int size) Set packet size	
void	**setSrc**(int src) Set stream id (0 if not stream data)	
void	**setTimecode**(long timecode) Set timecode (milliseconds) relative,	
void	**setTimecodes**(long timecode, long absTimecode) Set both relative and absolute timecode in one call (milliseconds)	
void	**setType**(int type) Set content type IVHost.CONTENTTYPE_*	
String	**toString**() Return object as formatted string	
void	**truncatePacket**(int newSize)	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

AMFPacket

public **AMFPacket**()

> Create new empty packet

AMFPacket

public **AMFPacket**(int type,
                    int src,
                    int size)

> Create new packet with given values

> #### Parameters:
> > `type` - packet content type: IVHost.CONTENTTYPE_*
> > `src` - stream id
> > `size` - packet size (bytes)

Methods

clone

public [AMFPacket](#) **clone**()

getSize

public int **getSize**()

> Get packet size

> #### Returns:
> > packet size

setSize

public void **setSize**(int size)

> Set packet size

> #### Parameters:
> > `size` - packet size

truncatePacket

public void **truncatePacket**(int newSize)

getMissing

public int **getMissing**()

Get the number of bytes remaining unfilled in the packet

Returns:
number of bytes unfilled in packet

---

setDataBuffer

public void **setDataBuffer**(java.nio.ByteBuffer data)

Set the data for this packet

Parameters:
data - byte buffer that holds packet data

---

setDataBuffer

public void **setDataBuffer**(byte[] data)

Set the data buffer to a byte array

Parameters:
data - data buffer byte array

---

addData

public int **addData**(byte[] data,
        int offset,
        int size)

Add data to the packet

Parameters:
data - byte buffer with data
offset - offset in byte buffer
size - size of data

Returns:
number of bytes unfilled in packet

---

getType

public int **getType**()

Get content type IVHost.CONTENTTYPE_*

Returns:
content type

---

setType

public void **setType**(int type)

Set content type IVHost.CONTENTTYPE_*

Parameters:
type - content type

---

getSrc

`public int getSrc()`

Get stream id (0 if not stream data)

Returns:
stream id

setSrc

`public void setSrc(int src)`

Set stream id (0 if not stream data)

Parameters:
src - stream id

toString

`public String toString()`

Return object as formatted string

getTimecode

`public long getTimecode()`

Get timecode (milliseconds) relative to the *previous* packet.

Returns:
timecode (milliseconds)

setTimecodes

`public void setTimecodes(long timecode,`
`        long absTimecode)`

Set both relative and absolute timecode in one call (milliseconds)

Note this time is relative to the *previous* packet.

Parameters:
timecode - relative timecode (milliseconds)
absTimecode - absolute timecode (milliseconds)

setTimecode

`public void setTimecode(long timecode)`

Set timecode (milliseconds) relative,

Note this time is relative to the *previous* packet.

Parameters:
timecode - timecode (milliseconds)

getAbsTimecode

```
public long getAbsTimecode()
```

Get absolute timecode (milliseconds)

Returns:
absolute timecode

setAbsTimecode

```
public void setAbsTimecode(long absTimecode)
```

Set absolute timecode (milliseconds)

Parameters:
absTimecode - absolute timecode

getSeq

```
public long getSeq()
```

Get packet sequence number. Used for live streams to keep track of packet ordering.

Returns:
packet sequence

setSeq

```
public void setSeq(long seq)
```

Set packet sequence. Used for live streams to keep track of packet ordering.

Parameters:
seq - packet sequence

isAudio

```
public boolean isAudio()
```

Is this an audio packet IVHost.CONTENTTYPE_AUDIO

Returns:
true if audio packet

isVideo

```
public boolean isVideo()
```

Is this an audio packet IVHost.CONTENTTYPE_VIDEO

Returns:
true if video packet

getDataBuffer

```
public java.nio.ByteBuffer getDataBuffer()
```

Get data as ByteBuffer

Returns:
> data as ByteBuffer

getData

```
public byte[] getData()
```

Get data as byte[]

Returns:
> data as byte[] null if no data

getFirstByte

```
public int getFirstByte()
```

Get first byte of data (used to peek into packet)

Returns:
> first byte of data in packet

getSecondByte

```
public int getSecondByte()
```

Get second byte of data (used to peek into packet)

Returns:
> second byte of data in packet

calcTotalPacketSize

```
public static int calcTotalPacketSize(int packetSize,
        int headerSize,
        int chunkSize,
        int amfNumber,
        boolean isLongTimecode)
```

Calculate the total packet size for given packet parameters

Parameters:
> packetSize - data size
> headerSize - header size
> chunkSize - chunk size
> amfNumber - amf number
> isLongTimecode - is long timecode

Returns:
> total bytes

addDataEx

```
public int addDataEx(byte[] srcData,
        int srcOffset,
        int destOffset,
        int srcBytes)
```

Add data to the packet

(continued from last page)

Parameters:

srcData - - source byte buffer with data

srcOffset - - start copying from source buffer at this offset

destOffset - - copy into destination buffer from this offset

srcBytes - - size of data to copy

Returns:

number of bytes unfilled in packet

com.wowza.wms.amf
Interface IAMFDataObj

All Known Implementing Classes:
    AMFDataObj

---

public interface **IAMFDataObj**
extends

Method Summary

boolean	**containsKey**(String name) Return true if the object/array contains key
AMFData	**get**(int index) Return the object at a particular index.
AMFData	**get**(String name) Return the object at a particular key.
boolean	**getBoolean**(int index) Get item at index return as boolean
boolean	**getBoolean**(String name) Get item at key return as boolean
byte	**getByte**(int index) Get item at index return as byte
byte	**getByte**(String name) Get item at key return as byte
java.util.Date	**getDate**(int index) Get item at index return as Date
java.util.Date	**getDate**(String name) Get item at key return as Date
double	**getDouble**(int index) Get item at index return as double
double	**getDouble**(String name) Get item at key return as double
float	**getFloat**(int index) Get item at index return as float
float	**getFloat**(String name) Get item at key return as float
int	**getInt**(int index) Get item at index return as int
int	**getInt**(String name) Get item at key return as int

String	**getKey**(int index)	
		Return the key at a particular index.
java.util.List	**getKeys**()	
		Return a list of all the keys (the list is a copy)
long	**getLong**(int index)	
		Get item at index return as long
long	**getLong**(String name)	
		Get item at key return as long
AMFDataObj	**getObject**(int index)	
		Get item at index return as AMFDataObj
AMFDataObj	**getObject**(String name)	
		Get item at key return as AMFDataObj
short	**getShort**(int index)	
		Get item at index return as short
short	**getShort**(String name)	
		Get item at key return as short
String	**getString**(int index)	
		Get item at index return as String
String	**getString**(String name)	
		Get item at key return as String
void	**put**(String name, AMFData data)	
		Put or replace object at key
void	**put**(String name, boolean data)	
		Put or replace boolean value at key (data will be wrapped in an AMFDataItem object)
void	**put**(String name, java.util.Date data)	
		Put or replace date value at key (data will be wrapped in an AMFDataItem object)
void	**put**(String name, double data)	
		Put or replace double value at key (data will be wrapped in an AMFDataItem object)
void	**put**(String name, int data)	
		Put or replace int value at key (data will be wrapped in an AMFDataItem object)
void	**put**(String name, long data)	
		Put or replace long value at key (data will be wrapped in an AMFDataItem object)
void	**put**(String name, String data)	
		Put or replace string value at key (data will be wrapped in an AMFDataItem object)
AMFData	**remove**(int index)	
		Remove element by index
AMFData	**remove**(String name)	
		Remove element by key

Methods

containsKey

`public boolean **containsKey**(String name)`

Return true if the object/array contains key

Parameters:
name - key

Returns:
Return true the object/array contains key

---

put

`public void **put**(String name,`
`        AMFData data)`

Put or replace object at key

Parameters:
name - key
data - object

---

put

`public void **put**(String name,`
`        String data)`

Put or replace string value at key (data will be wrapped in an AMFDataItem object)

Parameters:
name - key
data - string value

---

put

`public void **put**(String name,`
`        double data)`

Put or replace double value at key (data will be wrapped in an AMFDataItem object)

Parameters:
name - key
data - double value

---

put

`public void **put**(String name,`
`        int data)`

Put or replace int value at key (data will be wrapped in an AMFDataItem object)

Parameters:
name - key
data - int value

---

put

```
public void put(String name,
        long data)
```

Put or replace long value at key (data will be wrapped in an AMFDataItem object)

Parameters:
name - key
data - long value

put

```
public void put(String name,
        java.util.Date data)
```

Put or replace date value at key (data will be wrapped in an AMFDataItem object)

Parameters:
name - key
data - date value

put

```
public void put(String name,
        boolean data)
```

Put or replace boolean value at key (data will be wrapped in an AMFDataItem object)

Parameters:
name - key
data - boolean value

getKeys

```
public java.util.List getKeys()
```

Return a list of all the keys (the list is a copy)

Returns:
new list that contains one entry for each key

getKey

```
public String getKey(int index)
```

Return the key at a particular index.

Parameters:
index

Returns:
Return key at index or null if out of bounds

get

```
public AMFData get(String name)
```

Return the object at a particular key.

Parameters:
name - key

Returns:
Return object or null if out of bounds

get

```
public AMFData get(int index)
```

Return the object at a particular index.

Parameters:
index - index

Returns:
Return object or null if out of bounds

remove

```
public AMFData remove(String name)
```

Remove element by key

Parameters:
name - key

Returns:
removed object or null if not found

remove

```
public AMFData remove(int index)
```

Remove element by index

Parameters:
index - index

Returns:
removed object or null if not found

getString

```
public String getString(String name)
```

Get item at key return as String

Parameters:
name - key

Returns:
Return item as String or null if out of bounds

getInt

`public int ` **`getInt`**`(String name)`

Get item at key return as int

Parameters:
name - key

Returns:
Return item as int or 0 if out of bounds

getLong

`public long ` **`getLong`**`(String name)`

Get item at key return as long

Parameters:
name - key

Returns:
Return item as long or 0 if out of bounds

getShort

`public short ` **`getShort`**`(String name)`

Get item at key return as short

Parameters:
name - key

Returns:
Return item as short or 0 if out of bounds

getDouble

`public double ` **`getDouble`**`(String name)`

Get item at key return as double

Parameters:
name - key

Returns:
Return item as double or 0 if out of bounds

getFloat

`public float ` **`getFloat`**`(String name)`

Get item at key return as float

Parameters:
name - key

Returns:
Return item as float or 0 if out of bounds

getByte

`public byte` **`getByte`**`(String name)`

Get item at key return as byte

Parameters:
name - key

Returns:
Return item as byte or 0 if out of bounds

getBoolean

`public boolean` **`getBoolean`**`(String name)`

Get item at key return as boolean

Parameters:
name - key

Returns:
Return item as boolean or false if out of bounds

getDate

`public java.util.Date` **`getDate`**`(String name)`

Get item at key return as Date

Parameters:
name - key

Returns:
Return item as Date or null if out of bounds

getObject

`public` [AMFDataObj](#) **`getObject`**`(String name)`

Get item at key return as AMFDataObj

Parameters:
name - key

Returns:
Return item as AMFDataObj or null if out of bounds

getString

`public String` **`getString`**`(int index)`

Get item at index return as String

Parameters:
index - index

Returns:
> Return item as String or null if out of bounds

getInt

```
public int getInt(int index)
```

Get item at index return as int

Parameters:
> index - index

Returns:
> Return item as int or 0 if out of bounds

getLong

```
public long getLong(int index)
```

Get item at index return as long

Parameters:
> index - index

Returns:
> Return item as long or 0 if out of bounds

getShort

```
public short getShort(int index)
```

Get item at index return as short

Parameters:
> index - index

Returns:
> Return item as short or 0 if out of bounds

getByte

```
public byte getByte(int index)
```

Get item at index return as byte

Parameters:
> index - index

Returns:
> Return item as byte or 0 if out of bounds

getDouble

```
public double getDouble(int index)
```

Get item at index return as double

Parameters:

> index - index

Returns:

> Return item as double or 0 if out of bounds

getFloat

```
public float getFloat(int index)
```

Get item at index return as float

Parameters:

> index - index

Returns:

> Return item as float or 0 if out of bounds

getBoolean

```
public boolean getBoolean(int index)
```

Get item at index return as boolean

Parameters:

> index - index

Returns:

> Return item as boolean or false if out of bounds

getDate

```
public java.util.Date getDate(int index)
```

Get item at index return as Date

Parameters:

> index - index

Returns:

> Return item as Date or null if out of bounds

getObject

```
public AMFDataObj getObject(int index)
```

Get item at index return as AMFDataObj

Parameters:

> index - index

Returns:

> Return item as AMFDataObj or null if out of bounds

Package
com.wowza.wms.application

com.wowza.wms.application
Interface IApplication

public interface **IApplication**
extends

IApplication: public interface to Application object

Field Summary

public static final	**DEFAULT_APPLICATION_NAME** Value: **_defapp_**

Method Summary

void	**addApplicationInstanceListener**(**IApplicationInstanceNotify** applicationInstanceListener) Add applicationInstance listener.
IApplicationInstance	**getAppInstance**(String name) Get applicationInstance object by name
java.util.List	**getAppInstanceNames**() Get a list of application instance names
String	**getApplicationPath**() Get the root path for application
String	**getConfigPath**() Get full path to Application.xml file
ConnectionCounter	**getConnectionCounter**() Get the connectionCounter for application
ConnectionCounterSimple	**getConnectionCounter**(int counterIndex) Get the connectionCounter for application for application for a specific technology (see IVHost.COUNTER_*)
String	**getDateStarted**() Get date application started
IOPerformanceCounter	**getIoPerformanceCounter**() Get the performance counter for application
IOPerformanceCounter	**getIoPerformanceCounter**(int counterIndex) Get the performance counter for application for a specific technology (see IVHost.COUNTER_*)
String	**getName**() Get the name of application
WMSProperties	**getProperties**() Get application properties

void	**getProtocolUsage**(boolean[] protocolsInUse) Get the protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)	
String	**getTimeRunning**() Get time application running	
double	**getTimeRunningSeconds**() Get time running in seconds	
IVHost	**getVHost**() Get the parent vHost object	
boolean	**isAppInstanceLoaded**(String name) Return true if application instance is loaded	
String	**readAppConfig**(String sName) Method to read xml config file..	
void	**removeAppInstance**(IApplicationInstance appInstance) Disconnect all clients connected to an application instance and remove it from the IApplication application list.	
void	**removeApplicationInstanceListener**(IApplicationInstanceNotify applicationInstanceListener) Remove applicationInstance listener.	
void	**setName**(String name) Set name of application	
void	**shutdown**(boolean isServerShutdown) shutdown application	
void	**shutdownAppInstance**(String appInstanceName) Shutdown an application instance by name.	
boolean	**writeAppConfig**(String sName, String data) Method to write xml config file..	

Fields

DEFAULT_APPLICATION_NAME

public static final java.lang.String **DEFAULT_APPLICATION_NAME**

Constant value: **_defapp_**

Methods

shutdown

public void **shutdown**(boolean isServerShutdown)

shutdown application

Parameters:
isServerShutdown - true if due to shutdown of server

getApplicationPath

`public String ` **`getApplicationPath`**`()`

Get the root path for application

Returns:
root path for application

getConfigPath

`public String ` **`getConfigPath`**`()`

Get full path to Application.xml file

Returns:
full path to Application.xml file

getAppInstance

`public ` <u>`IApplicationInstance`</u> **`getAppInstance`**`(String name)`

Get applicationInstance object by name

Parameters:
name - applicationInstance name

Returns:
appliationInstance object

isAppInstanceLoaded

`public boolean ` **`isAppInstanceLoaded`**`(String name)`

Return true if application instance is loaded

Parameters:
name - applicationInstance name

Returns:
true if application instance is loaded

getName

`public String ` **`getName`**`()`

Get the name of application

Returns:
name of application

setName

`public void ` **`setName`**`(String name)`

Set name of application

(continued from last page)

> **Parameters:**
> name - name of application

getVHost

public [IVHost](#) **getVHost**()

> Get the parent vHost object
>
> **Returns:**
> parent vHost

getProperties

public [WMSProperties](#) **getProperties**()

> Get application properties
>
> **Returns:**
> application properties

addApplicationInstanceListener

public void **addApplicationInstanceListener**([IApplicationInstanceNotify](#) applicationInstanceListener)

> Add applicationInstance listener. Will be invoked each time applicationInstance created/deleted
>
> **Parameters:**
> applicationInstanceListener - applicationInstance listener

removeApplicationInstanceListener

public void **removeApplicationInstanceListener**([IApplicationInstanceNotify](#) applicationInstanceListener)

> Remove applicationInstance listener. Will be invoked each time applicationInstance created/deleted
>
> **Parameters:**
> applicationInstanceListener - applicationInstance listener

getConnectionCounter

public [ConnectionCounter](#) **getConnectionCounter**()

> Get the connectionCounter for application
>
> **Returns:**
> connectionCounter for application

getConnectionCounter

public ConnectionCounterSimple **getConnectionCounter**(int counterIndex)

> Get the connectionCounter for application for application for a specific technology (see IVHost.COUNTER_*)
>
> **Parameters:**
> counterIndex - counter index (see IVHost.COUNTER_*)

Returns:
>   connection ocunter

getIoPerformanceCounter

public `IOPerformanceCounter` **getIoPerformanceCounter**()

>   Get the performance counter for application

>   **Returns:**
>   >   performance counter for application

getIoPerformanceCounter

public `IOPerformanceCounter` **getIoPerformanceCounter**(int counterIndex)

>   Get the performance counter for application for a specific technology (see IVHost.COUNTER_*)

>   **Parameters:**
>   >   `counterIndex` - counter index (see IVHost.COUNTER_*)

>   **Returns:**
>   >   performance counter

getDateStarted

public String **getDateStarted**()

>   Get date application started

>   **Returns:**
>   >   date application started

getTimeRunning

public String **getTimeRunning**()

>   Get time application running

>   **Returns:**
>   >   time application running

getTimeRunningSeconds

public double **getTimeRunningSeconds**()

>   Get time running in seconds

>   **Returns:**
>   >   time running in seconds

getAppInstanceNames

public java.util.List **getAppInstanceNames**()

>   Get a list of application instance names

>   **Returns:**

list of application instance names

removeAppInstance

public void **removeAppInstance**(IApplicationInstance appInstance)

Disconnect all clients connected to an application instance and remove it from the IApplication application list. The proper way to call this is:

```
public void shutdownAppInstance(IApplicationInstance appInstance)
{
        IVHost vhost = appInstance.getVHost();
        IApplication app = appInstance.getApplication();

        WMSReadWriteLock appLock = vhost.getApplicationLock();
        appLock.writeLock().lock();
        try
        {
                app.removeAppInstance(appInstance);
        }
        catch (Exception e)
        {

WMSLoggerFactory.getLogger(Application.class).error("Application.shutdownAppInstance: "+
e.toString());
        }
        finally
        {
                appLock.writeLock().unlock();
        }
}
```

Parameters:
appInstance - application instance to remove

shutdownAppInstance

public void **shutdownAppInstance**(String appInstanceName)

Shutdown an application instance by name. This will disconnect all clients connected to this application instance.

Parameters:
appInstanceName - application instance name

readAppConfig

public String **readAppConfig**(String sName)

Method to read xml config file..

writeAppConfig

```
public boolean writeAppConfig(String sName,
         String data)
```

Method to write xml config file..

getProtocolUsage

```
public void getProtocolUsage(boolean[] protocolsInUse)
```

Get the protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)

com.wowza.wms.application
Interface IApplicationInstance

public interface **IApplicationInstance**
extends

IApplicationInstance: public interface to ApplicationInstance object

Field Summary

public static final	DEFAULT_APPINSTANCE_NAME Value: **_definst_**
public static final	PROTCOLUSAGE_CUPERTINO Value: **7**
public static final	PROTCOLUSAGE_MPEGDASH Value: **10**
public static final	PROTCOLUSAGE_ORIGINCUPERTINO Value: **15**
public static final	PROTCOLUSAGE_ORIGINMPEGDASH Value: **18**
public static final	PROTCOLUSAGE_ORIGINSANJOSE Value: **17**
public static final	PROTCOLUSAGE_ORIGINSMOOTH Value: **16**
public static final	PROTCOLUSAGE_RTMP Value: **0**
public static final	PROTCOLUSAGE_RTMPE Value: **4**
public static final	PROTCOLUSAGE_RTMPS Value: **2**
public static final	PROTCOLUSAGE_RTMPT Value: **1**
public static final	PROTCOLUSAGE_RTMPTE Value: **5**

public static final	PROTCOLUSAGE_RTMPTS
	Value: **3**
public static final	PROTCOLUSAGE_RTP
	Value: **6**
public static final	PROTCOLUSAGE_SANJOSE
	Value: **9**
public static final	PROTCOLUSAGE_SMOOTH
	Value: **8**
public static final	PROTCOLUSAGE_TOTAL
	Value: **19**
public static final	PROTCOLUSAGE_WEBM
	Value: **11**
public static final	PROTCOLUSAGE_WOWZ
	Value: **12**
public static final	PROTCOLUSAGE_WOWZE
	Value: **13**
public static final	PROTCOLUSAGE_WOWZS
	Value: **14**

Method Summary

void	addClientListener(IClientNotify clientListener) Add client listener.
void	addDvrRecorderListener(ILiveStreamDvrRecorderActionNotify listener) Add a Dvr Recorder listener (see: ILiveStreamDvrRecorderActionNotify)
void	addDvrStreamManagerListener(IDvrStreamManagerActionNotify listener) Add a Dvr Application Store Manager listener (see: IDvrStoreActionNotify)
void	addHTTPStreamerSession(IHTTPStreamerSession httpStreamerSession) Add a HTTPStreamerSession to this application instance
void	addLiveStreamPacketizerListener(ILiveStreamPacketizerActionNotify liveStreamPacketizerListener) Add a Live Stream Packetizer listener (see: ILiveStreamPacketizerActionNotify)
void	addLiveStreamTranscoderListener(ILiveStreamTranscoderNotify liveStreamTranscoderListener) Add a live stream transcoder listener
void	addMediaCasterListener(IMediaCasterNotify mediaCasterListener) Add mediaCaster listener.

void	**addMediaCasterListener**(IMediaCasterNotify2 mediaCasterListener) Add mediaCaster listener.	
void	**addMediaReaderListener**(IMediaReaderActionNotify mediaReaderListener) Add media reader listener.	
void	**addMediaStreamListener**(IMediaStreamNotify mediaStreamListener) Add mediaStream listener.	
void	**addMediaWriterListener**(IMediaWriterActionNotify listener) Add a MediaWriter listener class.	
void	**addModuleListener**(IModuleNotify moduleListener) Add module listener.	
void	**addPlayStreamByName**(IMediaStream stream, String name) Add a media stream to the list of streams that are listening for a published stream	
void	**addPublisher**(Publisher publisher) Add a server side publisher to this application instance	
void	**addRTPIncomingDatagramPortAll**() Allow all incoming RTP UDP ports for this application instance	
void	**addRTPIncomingDatagramPortRange**(int startPort, int endPort) Add a port range to the list of valid incoming RTP UDP ports	
void	**addRTPSession**(RTPSession rtpSession) Add an RTP session to this application instance	
void	**addSharedObjectListener**(ISharedObjectNotify sharedObjectListener, boolean isPersistent) Add sharedObject listener.	
void	**broadcastMsg**(java.util.List clientList, String handlerName) Broadcast a message to a specific list of clients connected to this application instance	
void	**broadcastMsg**(java.util.List clientList, String handlerName, Object[] params) Broadcast a message to a specific list of clients connected to this application instance	
void	**broadcastMsg**(String handlerName, Object[] params) Broadcast a message to all clients connected to this applicationInstance	
boolean	**containsDvrRecorder**(String dvrRecorder) Does this application instance contain a references to this DVR recorder.	
boolean	**containsHTTPStreamer**(String httpStreamer) Does this application instance allow streaming of a given HTTPStreamer	
boolean	**containsLiveStreamPacketizer**(String liveStreamPacketizer) Does this application instance contain a references to this live stream packetizer.	
boolean	**containsLiveStreamTranscoder**(String liveStreamTranscoder) Return true if this application instance contains the transcoder name	
String	**decodeStorageDir**(String storageDir) This function will take a storage path that uses variables and expand the variables based on the context.	

String[]	**getAllowDomains**()	
	Get the list of domain names used to control access to this application.	
IApplication	**getApplication**()	
	Get parent application	
int	**getApplicationInstanceTouchTimeout**()	
	Get the application instance touch timeout (milliseconds).	
int	**getApplicationTimeout**()	
	Get application timeout (milliseconds)	
IClient	**getClient**(int index)	
	Deprecated. *Get the client connection at index. This method is deprecated. It is best to use getClient() to return a List objects.*	
IClient	**getClientById**(int index)	
	Get a client connection by the client Id	
int	**getClientCount**()	
	Get number of client connections currently connected to applicationInstance	
int	**getClientCountTotal**()	
	Get number of client connections in total that have connected to this applicationInstance	
int	**getClientIdleFrequency**()	
	Get default client idle frequency (milliseconds)	
java.util.List	**getClients**()	
	Get the set of clients currently connected to this application instance (replaces getClient(index))	
edu.emory.mathcs.back port.java.util.concur rent.locks.WMSReadWri teLock	**getClientsLockObj**()	
	Get the read/write lock for this application instance	
ConnectionCounter	**getConnectionCounter**()	
	Get the connectionCounter for applicationInstance	
ConnectionCounterSimp le	**getConnectionCounter**(int counterIndex)	
	Get the connectionCounter for applicationInstance for a specific technology (see IVHost.COUNTER_*)	
String	**getContextStr**()	
	Returns the application context string in the form [application]/[appInstance].	
String	**getDateStarted**()	
	Get date applcationInstance started	
DvrApplicationContext	**getDvrApplicationContext**()	
	Get live stream dvr application context	
WMSProperties	**getDvrProperties**()	
	Get the property collection of DVR settings that are specific to this application instance.	
String	**getDvrRecorderList**()	
	Get the comma separated list of Dvr Recorder names being used by this application (see conf/Dvr.xml)	

IHTTPStreamerApplicat ionContext	getHTTPStreamerApplicationContext(String httpStreamName, boolean doCreate) Get the HTTPStreamer application context for a given HTTPStreamer adapter	
String	getHTTPStreamerList() Get the comma separated list of HTTPStreamers names being used by this application (see conf/HTTPStreamers.xml)	
WMSProperties	getHTTPStreamerProperties() Get the property collection of HTTPStreamer settings that are specific to this application instance	
int	getHTTPStreamerSessionCount() Get the current number of HTTPStreamerSessions associated with this application instance	
int	getHTTPStreamerSessionCount(int protocol) Get the current number of HTTPStreamerSessions associated with this application instance by protocol.	
int	getHTTPStreamerSessionCount(int protocol, String streamName) Get the current number of HTTPStreamerSessions associated with this application instance and stream name by protocol .	
int	getHTTPStreamerSessionCount(String streamName) Get the current number of HTTPStreamerSessions associated with this application instance and stream name	
java.util.Map	getHTTPStreamerSessionCountsByName(int protocol) Get a map of session counts by name for a given protocol	
java.util.List	getHTTPStreamerSessions() Get the HTTPStreamerSessions associated with this application instance	
java.util.List	getHTTPStreamerSessions(int protocol) Get the HTTPStreamerSessions associated with this application instance by protocol.	
java.util.List	getHTTPStreamerSessions(int protocol, String streamName) Get the HTTPStreamerSessions associated with this application instance for a stream name by protocol.	
java.util.List	getHTTPStreamerSessions(String streamName) Get the HTTPStreamerSessions associated with this application instance for a stream name	
IOPerformanceCounter	getIOPerformanceCounter() Get the performance counter for applicationInstance	
IOPerformanceCounter	getIOPerformanceCounter(int counterIndex) Get the performance counter for applicationInstance for a specific technology (see IVHost.COUNTER_*)	
long	getLastTouchTime() Get the last time the instance was touched (milliseconds)	
ILiveStreamDvrRecorde rControl	getLiveStreamDvrRecorderControl() Get the Live Stream DVR Recorder Controller.	
ILiveStreamPacketizer Control	getLiveStreamPacketizerControl() Get the Live Stream Packetizer Controller.	

String	**getLiveStreamPacketizerList**()	
	Get the comma separated list of LiveStreamPacketizers names being used by this application (see conf/LiveStreamPacketizers.xml)	
WMSProperties	**getLiveStreamPacketizerProperties**()	
	Get the property collection of LiveStreamPacketizer settings that are specific to this application instance	
ILiveStreamTranscoder Control	**getLiveStreamTranscoderControl**()	
	Get the Live Stream Transcoder Contoller.	
String	**getLiveStreamTranscoderList**()	
	Get comma separated list of transcoders to use for this application instance	
int	**getMaximumPendingReadBytes**()	
	Set maximum number of bytes a client connection can have waiting to be written before the connection is terminated.	
int	**getMaximumPendingWriteBytes**()	
	Get maximum number a bytes a client connection can have waiting to be sent before the connection is terminated.	
int	**getMaximumSetBufferTime**()	
	Get maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call.	
int	**getMaxStorageDirDepth**()	
	Maximum folder depth allowed for the StreamStorageDir and SharedObjectStorageDir paths	
WMSProperties	**getMediaCasterProperties**()	
	Get the property collection of media caster settings that are specific to this application instance	
int	**getMediacasterRTPRTSPRTPTransportMode**()	
	RTP MediaCaster RTSP/RTP transport mode.	
MediaCasterStreamMap	**getMediaCasterStreams**()	
	Get the media caster streams attached to this application instance	
IMediaCasterValidateM ediaCaster	**getMediaCasterValidator**()	
	Get the MediaCaster validator interface for this application instance	
IMediaListProvider	**getMediaListProvider**()	
	Get the current media list provider.	
int	**getMediaReaderContentType**(String mediaType)	
	Get the content type of a media stream name prefix (see IMediaReader.CONTENTTYPE_*)	
WMSProperties	**getMediaReaderProperties**()	
	Get the property collection of media reader settings that are specific to this application instance	
WMSProperties	**getMediaWriterProperties**()	
	Get the property collection of media reader settings that are specific to this application instance	
ModuleFunctions	**getModFunctions**()	
	Get list of application modules	
Object	**getModuleInstance**(String name)	
	Get the instance of the module class for this application instance.	
ModuleList	**getModuleList**()	
	Get the list of loaded modules.	

String	**getName**() Get applicationInstance name	
int	**getPingTimeout**() Get ping timeout (milliseconds)	
int	**getPlayStreamCount**(String streamName) Get the number of Flash players playing a given stream name	
java.util.Map	**getPlayStreamCountsByName**() Get a map of stream names to number of Flash players playing the stream name	
java.util.List	**getPlayStreamsByName**(String name) Get a list of media streams that are listening for published stream.	
WMSProperties	**getProperties**() Get applicationInstance properties	
boolean[]	**getProtocolUsage**() Get the protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)	
void	**getProtocolUsage**(boolean[] protocolsInUse) Get the protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)	
int	**getPublisherCount**() Get the current number of server side publishers	
java.util.List	**getPublishers**() Get the set of server side publishers	
java.util.List	**getPublishStreamNames**() Get the list of live stream names currently being published.	
String	**getRepeaterOriginUrl**() Get the Repeater Origin URL used by the Live Stream Repeater	
String	**getRepeaterQueryString**() Get the Repeater query string that is used to connect to the origin.	
String	**getRsoStorageDir**() Get remote shared object storage path	
String	**getRsoStoragePath**() Get the resolved storage path to the shared objects	
int	**getRTPAVSyncMethod**() Get RTP audio/video sync method (RTPStream.AVSYNCMETHODS_SENDERREPORT, RTPStream.AVSYNCMETHODS_SYSTEMCLOCK, RTPStream.AVSYNCMETHODS_RTPTIMECODE)	
int	**getRTPIdleFrequency**() Set the default RTP idle frequency (milliseconds)	
int	**getRTPMaxRTCPWaitTime**() Get the maximum time to wait for RTCP packets (milliseconds)	
String	**getRTPPlayAuthenticationMethod**() Get the RTP play authentication method (as defined in conf/Authentication.xml)	

[WMSProperties](#)	**getRTPProperties**()	
	Get the property collection of RTP settings that are specific to this application instance	
String	**getRTPPublishAuthenticationMethod**()	
	Get the RTP publish authentication method (as defined in conf/Authentication.xml)	
int	**getRTPSessionCount**()	
	Get the number of RTP sessions running under this application instance	
int	**getRTPSessionCount**(String streamName)	
	Get the number of RTP player streams playing a given stream name	
java.util.Map	**getRTPSessionCountsByName**()	
	Get a map of stream names and session counts of RTP sessions	
java.util.List	**getRTPSessions**()	
	Get a list of RTP sessions running under this application instance	
java.util.List	**getRTPSessions**(String streamName)	
	Get a list of RTP sessions running under this application instance playing a given stream name	
String	**getRTSPBindIpAddress**()	
	Set the IP address to which UDP ports will be bound for RTSP/RTP sessions	
String	**getRTSPConnectionAddressType**()	
	Get the connection IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session	
String	**getRTSPConnectionIpAddress**()	
	Get the connection IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session	
int	**getRTSPMaximumPendingWriteBytes**()	
	Get the maximum number of pending write bytes for an RTSP session	
String	**getRTSPOriginAddressType**()	
	Get the origin IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session	
String	**getRTSPOriginIpAddress**()	
	Get the origin IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session	
int	**getRTSPSessionTimeout**()	
	Get the RTSP session timeout (milliseconds)	
String	**getSharedObjectReadAccess**()	
	Get the default shared object read access	
[ISharedObjects](#)	**getSharedObjects**()	
	Get non-peristent shared object collection	
[ISharedObjects](#)	**getSharedObjects**(boolean isPersistent)	
	Get either persistent or non-persistent shared object collection	
String	**getSharedObjectWriteAccess**()	
	Get the default shared object write access	
String	**getStreamAudioSampleAccess**()	
	Get the default stream audio sample access	

int	**getStreamCount**()	
	Get the total number of open streams attached to this application instance	
IMediaStreamFileMapper	**getStreamFileMapper**()	
	Get the stream file mapper.	
String	**getStreamKeyDir**()	
	Get the stream key path	
String	**getStreamKeyPath**()	
	Get the resolved key path to the MediaStreams encryption keys	
IMediaStreamNameAliasProvider	**getStreamNameAliasProvider**()	
	Get the stream name alias provider	
WMSProperties	**getStreamProperties**()	
	Get the property collection of stream settings that are specific to this application instance	
String	**getStreamReadAccess**()	
	Get the default stream read access	
MediaStreamMap	**getStreams**()	
	Get all the mediaStream objects attached to this applicationInstance	
String	**getStreamStorageDir**()	
	Get stream storage path	
String	**getStreamStoragePath**()	
	Get the resolved storage path to the MediaStreams	
String	**getStreamType**()	
	Get default streamType for application.	
String	**getStreamVideoSampleAccess**()	
	Get the default stream video sample access	
String	**getStreamWriteAccess**()	
	Get the default stream write access	
WMSProperties	**getTimedTextProperties**()	
	Get the property collection of timed text settings that are specific to this application instance.	
String	**getTimeRunning**()	
	Get time applcationInstance running	
double	**getTimeRunningSeconds**()	
	Get time running in seconds	
LiveStreamTranscoderApplicationContext	**getTranscoderApplicationContext**()	
	Get live stream transcoder application context	
WMSProperties	**getTranscoderProperties**()	
	Get the property collection of Transcoder settings that are specific to this application instance	
int	**getValidationFrequency**()	
	Get time between validation pings (milliseconds)	
IVHost	**getVHost**()	
	Get parent vHost	

String	`getVODTimedTextProviderList`()	
	Get the comma separated list of VODTimedTextProvider names being used by this application (see conf/TimedTextProviders.xml)	
java.util.List	`getVODTimedTextProviderSet`()	
void	`incClientCountTotal`()	
	Increment the total number of connected client counter by one	
boolean	`isAcceptConnection`()	
	Is auto accept connection on/off	
boolean	`isDebugAppTimeout`()	
	If true appTimeout processing will be logged.	
boolean	`isRTPIncomingDatagramPortValid`(int port)	
	Check a port number to be sure it is a valid RTP UDP port for this application instance	
boolean	`isValidateFMLEConnections`()	
	Returns true if validating FMLE connection (default is false)	
void	`notifyDvrStreamManagerCreate`(`IDvrStreamManager` dvrStoreManager)	
	Notify listeners that Dvr Application Store Manager has been created.	
void	`notifyDvrStreamManagerDestroy`(`IDvrStreamManager` dvrManager)	
	Notify listeners that Dvr Application Store Manager has been destroyed.	
void	`notifyDvrStreamManagerInit`(`IDvrStreamManager` dvrStoreManager)	
	Notify listeners that Dvr Application Store Manager has been initialized.	
void	`notifyLiveStreamDvrRecorderCreate`(`ILiveStreamDvrRecorder` dvr, String streamName)	
	Notify Dvr Recorder Create	
void	`notifyLiveStreamDvrRecorderDestroy`(`ILiveStreamDvrRecorder` dvr)	
	Notify DVR Recorder has been destroyed.	
void	`notifyLiveStreamDvrRecorderInit`(`ILiveStreamDvrRecorder` dvr, String streamName)	
	Notify DVR Recorder has been initialized.	
void	`notifyLiveStreamPacketizerCreate`(`ILiveStreamPacketizer` liveStreamPacketizer, String streamName)	
	Notify Live Stream Packetizer Create	
void	`notifyLiveStreamPacketizerDestroy`(`ILiveStreamPacketizer` liveStreamPacketizer)	
	Notify Live Stream Packetizer Destory	
void	`notifyLiveStreamPacketizerInit`(`ILiveStreamPacketizer` liveStreamPacketizer, String streamName)	
	Notify Live Stream Packetizer Init	
void	`notifyLiveStreamTranscoderCreate`(`ILiveStreamTranscoder` liveStreamTranscoder, `IMediaStream` stream)	
	Notify live stream transcoder create	
void	`notifyLiveStreamTranscoderDestroy`(`ILiveStreamTranscoder` liveStreamTranscoder, `IMediaStream` stream)	
	Notify live stream transcoder destroy	

void	**notifyLiveStreamTranscoderInit**(**ILiveStreamTranscoder** liveStreamTranscoder, **IMediaStream** stream) Notify live stream transcoder init
void	**notifyMediaReaderClose**(**IMediaReader** mediaReader, **IMediaStream** stream) Notify media reader notifyMediaReaderClose
void	**notifyMediaReaderCreate**(**IMediaReader** mediaReader) Notify media reader notifyMediaReaderCreate
void	**notifyMediaReaderExtractMetaData**(**IMediaReader** mediaReader, **IMediaStream** stream) Notify media reader notifyMediaReaderExtractMetaData
void	**notifyMediaReaderInit**(**IMediaReader** mediaReader, **IMediaStream** stream) Notify media reader notifyMediaReaderInit
void	**notifyMediaReaderOpen**(**IMediaReader** mediaReader, **IMediaStream** stream) Notify media reader notifyMediaReaderOpen
void	**notifyMediaWriterOnFLVAddMetadata**(**IMediaStream** stream, java.util.Map extraMetadata) Notify all MediaWriter listeners of onFLVAddMetadata
void	**notifyMediaWriterOnWriteComplete**(**IMediaStream** stream, java.io.File file) Notify all MediaWriter listeners of onWriteComplete
void	**parseAllowDomains**(String domainFilterStr) Parse a comma delimited list of domain names used to control access to this application.
String	**readAppInstConfig**(String sName) Method to read xml config file..
void	**registerPlayRTPSession**(**RTPSession** rtpSession) Register an RTP session as a play session
void	**removeClientListener**(**IClientNotify** clientListener) Remove client listener.
void	**removeDvrRecorderListener**(**ILiveStreamDvrRecorderActionNotify** listener) Remove a Dvr Recorder listener (see: ILiveStreamDvrRecorderActionNotify)
void	**removeDvrStreamManagerListener**(**IDvrStreamManagerActionNotify** listener) Remove a Dvr Application Store Manager listener (see: IDvrStoreActionNotify)
void	**removeHTTPStreamerSession**(**IHTTPStreamerSession** httpStreamerSession) Remove a HTTPStreamerSession from this application instance
void	**removeLiveStreamPacketizerListener**(**ILiveStreamPacketizerActionNotify** liveStreamPacketizerListener) Remove a Live Stream Packetizer listener (see: ILiveStreamPacketizerActionNotify)
void	**removeLiveStreamTranscoderListener**(**ILiveStreamTranscoderNotify** liveStreamTranscoderListener) Remove a live stream transcoder listener
void	**removeMediaCasterListener**(**IMediaCasterNotify** mediaCasterListener) Remove mediaCaster listener.

void	removeMediaReaderListener(IMediaReaderActionNotify mediaReaderListener) Remove media reader listener.	
void	removeMediaStreamListener(IMediaStreamNotify mediaStreamListener) Remove mediaStream listener.	
void	removeMediaWriterListener(IMediaWriterActionNotify listener) remove MediaWriter listener class.	
void	removeModuleListener(IModuleNotify moduleListener) Remove module listener	
void	removePlayStreamByName(IMediaStream stream) Remove media stream from the list of streams that are listening for a published stream	
void	removePublisher(Publisher publisher) Remove a server side publisher from this application instance	
void	removeRTPSession(RTPSession rtpSession) Remove an RTP session from this application instance	
void	removeSharedObjectListener(ISharedObjectNotify sharedObjectListener, boolean isPersistent) Remove sharedObject listener.	
boolean	resetMediaCasterStream(String streamName) Reset a media caster stream	
boolean	resetMediaCasterStream(String streamName, String streamExt) Reset a media caster stream	
void	setAcceptConnection(boolean acceptConnection) Set is auto accept connection	
void	setAllowDomains(String[] domainFilter) Set the list of domain names used to control access to this application.	
void	setApplicationInstanceTouchTimeout(int applicationInstanceTouchTimeout) Set the application instance touch timeout (milliseconds).	
void	setApplicationTimeout(int applicationTimeout) Set application timeout (milliseconds)	
void	setClientIdleFrequency(int clientIdleFrequency) Set default client idle frequency (milliseconds)	
void	setDebugAppTimeout(boolean debugAppTimeout) If true appTimeout processing will be logged.	
void	setDvrRecorderList(String recorderList) Set the comma separated list of Dvr Recorder names being used by this application (see conf/Dvr.xml)	
void	setHTTPStreamerList(String httpStreamerList) Set the comma separated list of HTTPStreamer names being used by this application (see conf/HTTPStreamers.xml)	
void	setLiveStreamDvrRecorderControl(ILiveStreamDvrRecorderControl controller) Set the Live Stream DVR Controller.	

void	**setLiveStreamPacketizerControl**(**ILiveStreamPacketizerControl** liveStreamPacketizerControl) Set the Live Stream Packetizer Contoller.
void	**setLiveStreamPacketizerList**(String liveStreamPacketizerList) Set the comma separated list of LiveStreamPacketizers names being used by this application (see conf/LiveStreamPacketizers.xml)
void	**setLiveStreamTranscoderControl**(**ILiveStreamTranscoderControl** liveStreamTranscoderControl) Set the Live Stream Transcoder Contoller.
void	**setLiveStreamTranscoderList**(String liveStreamTranscoderList) Set comma separated list of transcoders to use for this application instance
void	**setMaximumPendingReadBytes**(int maximumPendingReaderBytes) Get maximum number of bytes a client connection can have waiting to be written before the connection is terminated.
void	**setMaximumPendingWriteBytes**(int maximumPendingWriteBytes) Set maximum number a bytes a client connection can have waiting to be sent before the connection is terminated.
void	**setMaximumSetBufferTime**(int maximumSetBufferTime) Set maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call.
void	**setMaxStorageDirDepth**(int maxStorageDirDepth) Maximum folder depth allowed for the StreamStorageDir and SharedObjectStorageDir paths
void	**setMediacasterRTPRTSPRTPTransportMode**(int mediacasterRTPRTSPRTPTransportMode) RTP MediaCaster RTSP/RTP transport mode.
void	**setMediaCasterValidator**(**IMediaCasterValidateMediaCaster** mediaCasterValidator) Set the MediaCaster validator interface for this application instance
void	**setMediaListProvider**(**IMediaListProvider** mediaListProvider) Set the current media list provider.
void	**setName**(String name) Set applicationInstance name
void	**setPingTimeout**(int pingTimeout) Set ping timeout (millseconds)
void	**setRepeaterOriginUrl**(String repeaterOriginUrl) Set the Repeater Origin URL used by the Live Stream Repeater
void	**setRepeaterQueryString**(String repeaterQueryString) Set the Repeater query string that is used to connect to the origin.
void	**setRsoStorageDir**(String rsoStorageDir) Set remote shared object storage path
void	**setRTPAVSyncMethod**(int rtpAVSyncMethod) Set RTP audio/video sync method (RTPStream.AVSYNCMETHODS_SENDERREPORT, RTPStream.AVSYNCMETHODS_SYSTEMCLOCK, RTPStream.AVSYNCMETHODS_RTPTIMECODE)

	void	setRTPIdleFrequency(int rtspIdleFrequency)
		Get the default RTP idle frequency (milliseconds)
	void	setRTPMaxRTCPWaitTime(int rtpMaxRTCPWaitTime)
		Set the maximum time to wait for RTCP packets (milliseconds)
	void	setRTPPlayAuthenticationMethod(String rtpPlayAuthenticationMethod)
		Set the RTP play authentication method (as defined in conf/Authentication.xml)
	void	setRTPPublishAuthenticationMethod(String rtpPublishAuthenticationMethod)
		Set the RTP publish authentication method (as defined in conf/Authentication.xml)
	void	setRTSPBindIpAddress(String rtspBindIpAddress)
		Get the IP address to which UDP ports will be bound for RTSP/RTP sessions
	void	setRTSPConnectionAddressType(String rtspConnectionAddressType)
		Set the connection IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session
	void	setRTSPConnectionIpAddress(String rtspConnectionIpAddress)
		Set the connection IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session
	void	setRTSPMaximumPendingWriteBytes(int rtspMaximumPendingWriteBytes)
		Set the maximum number of pending write bytes for an RTSP session
	void	setRTSPOriginAddressType(String rtspOriginAddressType)
		Set the origin IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session
	void	setRTSPOriginIpAddress(String rtspOriginIpAddress)
		Set the origin IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session
	void	setRTSPSessionTimeout(int rtspSessionTimeout)
		Set the RTSP session timeout (milliseconds)
	void	setSharedObjectReadAccess(String sharedObjectReadAccess)
		Set the default shared object read access
	void	setSharedObjectWriteAccess(String sharedObjectWriteAccess)
		Set the default shared object write access
	void	setStreamAudioSampleAccess(String streamAudioSampleAccess)
		Set the default stream audio sample access
	void	setStreamFileMapper(IMediaStreamFileMapper streamFileMapper)
		Set the stream file mapper.
	void	setStreamKeyDir(String keyStorageDir)
		Set the stream key path
	void	setStreamNameAliasProvider(IMediaStreamNameAliasProvider streamNameAliasProvider)
		Set the stream name alias provider
	void	setStreamReadAccess(String streamReadAccess)
		Set the default stream read access

void	**setStreamStorageDir**(String streamStorageDir)	
	Set stream storage path	
void	**setStreamType**(String streamType)	
	Set default stream type for application.	
void	**setStreamVideoSampleAccess**(String streamVideoSampleAccess)	
	Set the default stream video sample access	
void	**setStreamWriteAccess**(String streamWriteAccess)	
	Set the default stream write access	
void	**setValidateFMLEConnections**(boolean validateFMLEConnections)	
	Returns true if validating FMLE connection (default is false)	
void	**setValidationFrequency**(int validationFrequency)	
	Set time between validation pings (milliseconds)	
void	**setVODTimedTextProviderList**(String timedTextProviderList)	
	Set the comma separated list of VODTimedTextProvider names being used by this application (see conf/TimedTextProviders.xml)	
void	**shutdown**(boolean isServerShutdown, boolean isAppShutdown)	
	shutdown applicationInstance	
void	**shutdownClient**(**IClient** client)	
	shutdown a client connection immediately	
boolean	**startMediaCasterStream**(String streamName, String mediaCasterType)	
	Start a media caster stream	
boolean	**startMediaCasterStream**(String streamName, String streamExt, String mediaCasterType)	
	Start a media caster stream	
void	**stopMediaCasterStream**(String streamName)	
	Stop a media caster stream	
void	**touch**()	
	Touch the application instance so that it stays loaded for at least applicationInstanceTouchTimeout	
boolean	**writeAppInstConfig**(String sName, String data)	
	Method to write xml config file..	

Fields

PROTCOLUSAGE_RTMP

public static final int **PROTCOLUSAGE_RTMP**

Constant value: **0**

PROTCOLUSAGE_RTMPT

public static final int **PROTCOLUSAGE_RTMPT**

Constant value: **1**

PROTCOLUSAGE_RTMPS

`public static final int` **`PROTCOLUSAGE_RTMPS`**

Constant value: **2**

PROTCOLUSAGE_RTMPTS

`public static final int` **`PROTCOLUSAGE_RTMPTS`**

Constant value: **3**

PROTCOLUSAGE_RTMPE

`public static final int` **`PROTCOLUSAGE_RTMPE`**

Constant value: **4**

PROTCOLUSAGE_RTMPTE

`public static final int` **`PROTCOLUSAGE_RTMPTE`**

Constant value: **5**

PROTCOLUSAGE_RTP

`public static final int` **`PROTCOLUSAGE_RTP`**

Constant value: **6**

PROTCOLUSAGE_CUPERTINO

`public static final int` **`PROTCOLUSAGE_CUPERTINO`**

Constant value: **7**

PROTCOLUSAGE_SMOOTH

`public static final int` **`PROTCOLUSAGE_SMOOTH`**

Constant value: **8**

PROTCOLUSAGE_SANJOSE

`public static final int` **`PROTCOLUSAGE_SANJOSE`**

Constant value: **9**

PROTCOLUSAGE_MPEGDASH

`public static final int` **`PROTCOLUSAGE_MPEGDASH`**

Constant value: **10**

PROTCOLUSAGE_WEBM

`public static final int` **`PROTCOLUSAGE_WEBM`**

Constant value: **11**

PROTCOLUSAGE_WOWZ

`public static final int` **`PROTCOLUSAGE_WOWZ`**

Constant value: **12**

PROTCOLUSAGE_WOWZE

`public static final int` **`PROTCOLUSAGE_WOWZE`**

Constant value: **13**

PROTCOLUSAGE_WOWZS

`public static final int` **`PROTCOLUSAGE_WOWZS`**

Constant value: **14**

PROTCOLUSAGE_ORIGINCUPERTINO

`public static final int` **`PROTCOLUSAGE_ORIGINCUPERTINO`**

Constant value: **15**

PROTCOLUSAGE_ORIGINSMOOTH

`public static final int` **`PROTCOLUSAGE_ORIGINSMOOTH`**

Constant value: **16**

PROTCOLUSAGE_ORIGINSANJOSE

`public static final int` **`PROTCOLUSAGE_ORIGINSANJOSE`**

Constant value: **17**

PROTCOLUSAGE_ORIGINMPEGDASH

`public static final int` **`PROTCOLUSAGE_ORIGINMPEGDASH`**

Constant value: **18**

PROTCOLUSAGE_TOTAL

`public static final int` **`PROTCOLUSAGE_TOTAL`**

Constant value: **19**

DEFAULT_APPINSTANCE_NAME

`public static final java.lang.String` **`DEFAULT_APPINSTANCE_NAME`**

Constant value: **_definst_**

Methods

shutdownClient

`public void` **`shutdownClient`**`(`[`IClient`](#)` client)`

shutdown a client connection immediately

Parameters:

`client` - client connection

shutdown

`public void` **`shutdown`**`(boolean isServerShutdown,`
        `boolean isAppShutdown)`

shutdown applicationInstance

Parameters:

`isServerShutdown` - true if due to shutdown of server
`isAppShutdown` - true if due to shutdown of application

getApplication

`public` [`IApplication`](#) **`getApplication`**`()`

Get parent application

Returns:

parent application

getName

`public String` **`getName`**`()`

Get applicationInstance name

Returns:

applicationInstance name

setName

`public void `**`setName`**`(String name)`

Set applicationInstance name

Parameters:
name - applicationInstance name

getStreams

`public `[`MediaStreamMap`]` `**`getStreams`**`()`

Get all the mediaStream objects attached to this applicationInstance

Get Stream By StreamId

```
IClient client;
int streamId;

MediaStreamMap streams = client.getAppInstance().getStreams();
IMediaStream stream = streams.getStream((IClient)null, streamId);
```

Returns:
collection of mediaStream objects

getVHost

`public `[`IVHost`]` `**`getVHost`**`()`

Get parent vHost

Returns:
parent vHost

getProperties

`public `[`WMSProperties`]` `**`getProperties`**`()`

Get applicationInstance properties

Returns:
applicationInstance properties

getStreamType

`public String `**`getStreamType`**`()`

Get default streamType for application.

Returns:
> streamType name

---

setStreamType

```
public void setStreamType(String streamType)
```

> Set default stream type for application.

> **Parameters:**
> > `streamType` - streamType name

---

isAcceptConnection

```
public boolean isAcceptConnection()
```

> Is auto accept connection on/off

> **Returns:**
> > auto accept connection

---

setAcceptConnection

```
public void setAcceptConnection(boolean acceptConnection)
```

> Set is auto accept connection

> **Parameters:**
> > `acceptConnection` - auto accept connection

---

getClientCountTotal

```
public int getClientCountTotal()
```

> Get number of client connections in total that have connected to this applicationInstance

> **Returns:**
> > number of client connections

---

incClientCountTotal

```
public void incClientCountTotal()
```

> Increment the total number of connected client counter by one

---

getClientCount

```
public int getClientCount()
```

> Get number of client connections currently connected to applicationInstance

> **Returns:**
> > number of client connections

---

getClientById

```
public IClient getClientById(int index)
```

Get a client connection by the client Id

Parameters:
  `index` - client Id

Returns:
  client connection

getClients

```
public java.util.List getClients()
```

Get the set of clients currently connected to this application instance (replaces getClient(index))

Returns:
  set of clients

getClient

```
public IClient getClient(int index)
```

Deprecated. *Get the client connection at index. This method is deprecated. It is best to use getClient() to return a List objects.*

Parameters:
  `index` - index

Returns:
  client connection

getSharedObjects

```
public ISharedObjects getSharedObjects()
```

Get non-persistent shared object collection

Returns:
  collection of non-persistent shared objects

getSharedObjects

```
public ISharedObjects getSharedObjects(boolean isPersistent)
```

Get either persistent or non-persistent shared object collection

Parameters:
  `isPersistent`

Returns:
  collection of shared objects

addClientListener

```
public void addClientListener(IClientNotify clientListener)
```

Add client listener. Listens for connects, disconnect, accepts and reject

Add a Client Listener

```
IApplicationInstance appInstance;

class ClientListener implements IClientNotify
{
        public void onClientConnect(IClient client)
        {
                WMSLoggerFactory.getLogger(null).debug("onClientConnect: "+
                        client.getClientId());
        }

        public void onClientDisconnect(IClient client)
        {
                WMSLoggerFactory.getLogger(null).debug("onClientDisconnect: "+
                        client.getClientId());
        }

        public void onClientAccept(IClient client)
        {
                WMSLoggerFactory.getLogger(null).debug("onClientAccept: "+
                        client.getClientId());
        }

        public void onClientReject(IClient client)
        {
                WMSLoggerFactory.getLogger(null).debug("onClientReject: "+
                        client.getClientId());
        }
}

appInstance.addClientListener(new ClientListener());
```

Parameters:
clientListener - client listener

removeClientListener

public void **removeClientListener**(IClientNotify clientListener)

Remove client listener. Listens for connects, disconnect, accepts and reject

Parameters:
clientListener - client listener

addMediaStreamListener

public void **addMediaStreamListener**([IMediaStreamNotify](#) mediaStreamListener)

Add mediaStream listener. Listens for create and destroy

Add a MediaStream Listener

```
IApplicationInstance appInstance;

class MediaStreamListener implements IMediaStreamNotify
{
        public void onMediaStreamCreate(IMediaStream stream)
        {
                WMSLoggerFactory.getLogger(null).debug("onMediaStreamCreate: "+
                        stream.getSrc());
        }

        public void onMediaStreamDestroy(IMediaStream stream)
        {
                WMSLoggerFactory.getLogger(null).debug("onMediaStreamDestroy: "+
                        stream.getSrc());
        }
}
appInstance.addMediaStreamListener(new MediaStreamListener());
```

Parameters:
　　mediaStreamListener - mediaStream listener

removeMediaStreamListener

public void **removeMediaStreamListener**([IMediaStreamNotify](#) mediaStreamListener)

Remove mediaStream listener. Listens for create and destroy

Parameters:
　　mediaStreamListener - mediaStream listener

addSharedObjectListener

public void **addSharedObjectListener**([ISharedObjectNotify](#) sharedObjectListener,
　　　　boolean isPersistent)

Add sharedObject listener. Listens for create, destroy, clientConnect, clientDisconnect

Add SharedObject Listener

```
IApplicationInstance appInstance;

class SharedObjectListener implements ISharedObjectNotify
{
        public void onSharedObjectCreate(ISharedObject sharedObject)
        {
                WMSLoggerFactory.getLogger(null).debug("onSharedObjectCreate: "+
                        sharedObject.getName());
        }

        public void onSharedObjectDestroy(ISharedObject sharedObject)
        {
                WMSLoggerFactory.getLogger(null).debug("onSharedObjectDestroy: "+
                        sharedObject.getName());
        }

        public void onSharedObjectConnect(ISharedObject sharedObject, IClient client)
        {
                WMSLoggerFactory.getLogger(null).debug("onSharedObjectConnect: "+
                        sharedObject.getName());
        }

        public void onSharedObjectDisconnect(ISharedObject sharedObject, IClient client)
        {
                WMSLoggerFactory.getLogger(null).debug("onSharedObjectDisconnect: "+
                        sharedObject.getName());
        }
}
appInstance.addSharedObjectListener(new SharedObjectListener(), false);
```

Parameters:

    sharedObjectListener - sharedObject listener
    isPersistent

removeSharedObjectListener

```
public void removeSharedObjectListener(ISharedObjectNotify sharedObjectListener,
        boolean isPersistent)
```

Remove sharedObject listener. Listens for create, destroy, clientConnect, clientDisconnect

Parameters:

    sharedObjectListener - sharedObject listener
    isPersistent

---

addMediaCasterListener

public void **addMediaCasterListener**(IMediaCasterNotify mediaCasterListener)

Add mediaCaster listener. Listens for create, destroy, registerPlayer, unregisterPlayer, setSourceStream

Parameters:
    mediaCasterListener

---

addMediaCasterListener

public void **addMediaCasterListener**(IMediaCasterNotify2 mediaCasterListener)

Add mediaCaster listener. Listens for create, destroy, registerPlayer, unregisterPlayer, setSourceStream

Parameters:
    mediaCasterListener

---

removeMediaCasterListener

public void **removeMediaCasterListener**(IMediaCasterNotify mediaCasterListener)

Remove mediaCaster listener. Listens for create, destroy, registerPlayer, unregisterPlayer, setSourceStream

Parameters:
    mediaCasterListener

---

getConnectionCounter

public ConnectionCounter **getConnectionCounter**()

Get the connectionCounter for applicationInstance

Returns:
    connection counter

---

getConnectionCounter

public ConnectionCounterSimple **getConnectionCounter**(int counterIndex)

Get the connectionCounter for applicationInstance for a specific technology (see IVHost.COUNTER_*)

Parameters:
    counterIndex - counter index

Returns:
    connection counter

---

getDateStarted

public String **getDateStarted**()

Get date applcationInstance started

Returns:

date applcationInstance started

getTimeRunning

```
public String getTimeRunning()
```

Get time applcationInstance running

Returns:
time applcationInstance running

getTimeRunningSeconds

```
public double getTimeRunningSeconds()
```

Get time running in seconds

Returns:
time running in seconds

broadcastMsg

```
public void broadcastMsg(java.util.List clientList,
        String handlerName)
```

Broadcast a message to a specific list of clients connected to this application instance

Parameters:
clientList - list of client
handlerName - handler name

broadcastMsg

```
public void broadcastMsg(java.util.List clientList,
        String handlerName,
        Object[] params)
```

Broadcast a message to a specific list of clients connected to this application instance

Parameters:
clientList - list of client
handlerName - handler name
params - parameters

broadcastMsg

```
public void broadcastMsg(String handlerName,
        Object[] params)
```

Broadcast a message to all clients connected to this applicationInstance

Broadcast Message to All Clients

```
IApplicationInstance appInstance;
appInstance.broadcastMsg("onNotify", "Hello World", 1.2345, false, new Date());
```

Parameters:
    `handlerName` - handler name
    `params` - variable list of arguments (Java primitive and Strings will be wrapped in AMFData objects)

---

getIOPerformanceCounter

public `IOPerformanceCounter` **getIOPerformanceCounter**()

    Get the performance counter for applicationInstance

    Returns:
        io performance counter

---

getIOPerformanceCounter

public `IOPerformanceCounter` **getIOPerformanceCounter**(int counterIndex)

    Get the performance counter for applicationInstance for a specific technology (see IVHost.COUNTER_*)

    Parameters:
        `counterIndex` - counter index (see IVHost.COUNTER_*)

    Returns:
        connection counter

---

addPlayStreamByName

public void **addPlayStreamByName**(`IMediaStream` stream,
        String name)

    Add a media stream to the list of streams that are listening for a published stream

    Parameters:
        `stream` - media stream
        `name` - stream name

---

removePlayStreamByName

public void **removePlayStreamByName**(`IMediaStream` stream)

    Remove media stream from the list of streams that are listening for a published stream

    Parameters:

>   stream - media stream

getPlayStreamCountsByName

`public java.util.Map getPlayStreamCountsByName()`

>   Get a map of stream names to number of Flash players playing the stream name
>
>   **Returns:**
>   map of stream names to number of Flash players playing the stream name

getPlayStreamCount

`public int getPlayStreamCount(String streamName)`

>   Get the number of Flash players playing a given stream name
>
>   **Parameters:**
>   streamName - stream name
>
>   **Returns:**
>   number of players

getPlayStreamsByName

`public java.util.List getPlayStreamsByName(String name)`

>   Get a list of media streams that are listening for published stream.
>
>   **Parameters:**
>   name - stream name
>
>   **Returns:**
>   list of streams or null if no listeners

getMediaCasterStreams

`public MediaCasterStreamMap getMediaCasterStreams()`

>   Get the media caster streams attached to this application instance
>
>   **Returns:**
>   media caster streams attached to this application instance

getStreamCount

`public int getStreamCount()`

>   Get the total number of open streams attached to this application instance
>
>   **Returns:**
>   the total number of open streams attached to this application instance

getModFunctions

`public ModuleFunctions getModFunctions()`

>   Get list of application modules

Returns:
>   list of application modules

addModuleListener

`public void` **`addModuleListener`**`(`<u>`IModuleNotify`</u>` moduleListener)`

>   Add module listener. Listens for onModuleLoad and onModuleUnload events. See IModuleNotify.

>   **Parameters:**
>>   moduleListener - module listener

removeModuleListener

`public void` **`removeModuleListener`**`(`<u>`IModuleNotify`</u>` moduleListener)`

>   Remove module listener

>   **Parameters:**
>>   moduleListener - module listener

getModuleList

`public ModuleList` **`getModuleList`**`()`

>   Get the list of loaded modules.

>   **Returns:**
>>   list of loaded modules

getModuleInstance

`public Object` **`getModuleInstance`**`(String name)`

>   Get the instance of the module class for this application instance.

>   **Parameters:**
>>   name - module name as defined in Application.xml

>   **Returns:**
>>   instance of class for this application instance

getApplicationTimeout

`public int` **`getApplicationTimeout`**`()`

>   Get application timeout (milliseconds)

>   **Returns:**
>>   application timeout (milliseconds)

setApplicationTimeout

`public void` **`setApplicationTimeout`**`(int applicationTimeout)`

>   Set application timeout (milliseconds)

Parameters:
    `applicationTimeout` - application timeout (milliseconds)

---

getPingTimeout

`public int` **`getPingTimeout`**`()`

Get ping timeout (milliseconds)

Returns:
    ping timeout (milliseconds)

---

setPingTimeout

`public void` **`setPingTimeout`**`(int pingTimeout)`

Set ping timeout (millseconds)

Parameters:
    `pingTimeout` - ping timeout (millseconds)

---

getValidationFrequency

`public int` **`getValidationFrequency`**`()`

Get time between validation pings (milliseconds)

Returns:
    time between validation pings (milliseconds)

---

setValidationFrequency

`public void` **`setValidationFrequency`**`(int validationFrequency)`

Set time between validation pings (milliseconds)

Parameters:
    `validationFrequency` - time between validation pings (milliseconds)

---

getMaximumPendingWriteBytes

`public int` **`getMaximumPendingWriteBytes`**`()`

Get maximum number a bytes a client connection can have waiting to be sent before the connection is terminated. If set to zero this feature is turned off.

Returns:
    maximum number a bytes a client connection can have waiting to be sent before the connection is terminated

---

setMaximumPendingWriteBytes

`public void` **`setMaximumPendingWriteBytes`**`(int maximumPendingWriteBytes)`

Set maximum number a bytes a client connection can have waiting to be sent before the connection is terminated. If set to zero this feature is turned off.

Parameters:
    `maximumPendingWriteBytes` - maximum number a bytes a client connection can have waiting to be sent before the connection is terminated

getMaximumPendingReadBytes

`public int getMaximumPendingReadBytes()`

Set maximum number of bytes a client connection can have waiting to be written before the connection is terminated. If set to zero this feature is off.

Returns:

maximum number of bytes a client connection can have waiting to be written before the connection is terminated

setMaximumPendingReadBytes

`public void setMaximumPendingReadBytes(int maximumPendingReaderBytes)`

Get maximum number of bytes a client connection can have waiting to be written before the connection is terminated. If set to zero this feature is off.

Parameters:

`maximumPendingReaderBytes` - maximum number of bytes a client connection can have waiting to be written before the connection is terminated

setMaximumSetBufferTime

`public void setMaximumSetBufferTime(int maximumSetBufferTime)`

Set maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call. If set to zero this feature is turned off.

Parameters:

`maximumSetBufferTime` - maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call

getMaximumSetBufferTime

`public int getMaximumSetBufferTime()`

Get maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call. If set to zero this feature is turned off.

Returns:

maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call

getRepeaterOriginUrl

`public String getRepeaterOriginUrl()`

Get the Repeater Origin URL used by the Live Stream Repeater

Returns:

URL used by the Live Stream Repeater

setRepeaterOriginUrl

`public void setRepeaterOriginUrl(String repeaterOriginUrl)`

Set the Repeater Origin URL used by the Live Stream Repeater

Parameters:

`repeaterOriginUrl` - URL used by the Live Stream Repeater

getRepeaterQueryString

`public String` **`getRepeaterQueryString`**`()`

Get the Repeater query string that is used to connect to the origin. This value can be used to pass secure URL parameters to the origin for security validation.

Returns:
Repeater query string

setRepeaterQueryString

`public void` **`setRepeaterQueryString`**`(String repeaterQueryString)`

Set the Repeater query string that is used to connect to the origin. This value can be used to pass secure URL parameters to the origin for security validation.

Parameters:
`repeaterQueryString` - Repeater query string

getAllowDomains

`public String[]` **`getAllowDomains`**`()`

Get the list of domain names used to control access to this application. Upon connection, if this list is non-null the client.referrer value is checked to make sure the referrer is from a domain in this list.

Returns:
list of domain names used to control access to this application

setAllowDomains

`public void` **`setAllowDomains`**`(String[] domainFilter)`

Set the list of domain names used to control access to this application. Upon connection, if this list is non-null the client.referrer value is checked to make sure the referrer is from a domain in this list.

Parameters:
`domainFilter` - list of domain names used to control access to this application

parseAllowDomains

`public void` **`parseAllowDomains`**`(String domainFilterStr)`

Parse a comma delimited list of domain names used to control access to this application. Upon connection, if this list is non-null the client.referrer value is checked to make sure the referrer is from a domain in this list.

Parameters:
`domainFilterStr` - comma delimited list of domain names

getClientIdleFrequency

`public int` **`getClientIdleFrequency`**`()`

Get default client idle frequency (milliseconds)

Returns:
default client idle frequency (milliseconds)

setClientIdleFrequency

`public void` **`setClientIdleFrequency`**`(int clientIdleFrequency)`

Set default client idle frequency (milliseconds)

Parameters:
`clientIdleFrequency` - default client idle frequency (milliseconds)

getRTPIdleFrequency

`public int` **`getRTPIdleFrequency`**`()`

Set the default RTP idle frequency (milliseconds)

Returns:
default RTP idle frequency (milliseconds)

setRTPIdleFrequency

`public void` **`setRTPIdleFrequency`**`(int rtspIdleFrequency)`

Get the default RTP idle frequency (milliseconds)

Parameters:
`rtspIdleFrequency` - default RTP idle frequency (milliseconds)

getStreamStorageDir

`public String` **`getStreamStorageDir`**`()`

Get stream storage path

Returns:
stream storage path

setStreamStorageDir

`public void` **`setStreamStorageDir`**`(String streamStorageDir)`

Set stream storage path

Parameters:
`streamStorageDir` - stream storage path

getStreamKeyDir

`public String` **`getStreamKeyDir`**`()`

Get the stream key path

Returns:
stream key path

setStreamKeyDir

`public void` **`setStreamKeyDir`**`(String keyStorageDir)`

Set the stream key path

Parameters:
    keyStorageDir - stream key path

---

getRsoStorageDir

public String **getRsoStorageDir**()

Get remote shared object storage path

Returns:
    remote shared object storage path

---

setRsoStorageDir

public void **setRsoStorageDir**(String rsoStorageDir)

Set remote shared object storage path

Parameters:
    rsoStorageDir - remote shared object storage path

---

getStreamKeyPath

public String **getStreamKeyPath**()

Get the resolved key path to the MediaStreams encryption keys

Returns:
    resolved key path to the MediaStreams encryption keys

---

getStreamStoragePath

public String **getStreamStoragePath**()

Get the resolved storage path to the MediaStreams

Returns:
    resolved storage path to the MediaStreams

---

getRsoStoragePath

public String **getRsoStoragePath**()

Get the resolved storage path to the shared objects

Returns:
    resolved storage path to the shared objects

---

getStreamVideoSampleAccess

public String **getStreamVideoSampleAccess**()

Get the default stream video sample access

Returns:
    default stream video sample access

See Also:
> IClient.getStreamVideoSampleAccess()

setStreamVideoSampleAccess

public void **setStreamVideoSampleAccess**(String streamVideoSampleAccess)

Set the default stream video sample access

Parameters:
> streamVideoSampleAccess - default stream video sample access

See Also:
> IClient.setStreamVideoSampleAccess(String)

getStreamAudioSampleAccess

public String **getStreamAudioSampleAccess**()

Get the default stream audio sample access

Returns:
> default stream audio sample access

See Also:
> IClient.getStreamAudioSampleAccess()

setStreamAudioSampleAccess

public void **setStreamAudioSampleAccess**(String streamAudioSampleAccess)

Set the default stream audio sample access

Parameters:
> streamAudioSampleAccess

See Also:
> IClient.setStreamAudioSampleAccess(String)

getStreamReadAccess

public String **getStreamReadAccess**()

Get the default stream read access

Returns:
> default stream read access

See Also:
> IClient.getStreamReadAccess()

setStreamReadAccess

public void **setStreamReadAccess**(String streamReadAccess)

Set the default stream read access

Parameters:
streamReadAccess - default stream read access

See Also:
IClient.setStreamReadAccess(String)

getStreamWriteAccess

public String **getStreamWriteAccess**()

Get the default stream write access

Returns:
default stream write access

See Also:
IClient.getStreamWriteAccess()

setStreamWriteAccess

public void **setStreamWriteAccess**(String streamWriteAccess)

Set the default stream write access

Parameters:
streamWriteAccess - default stream write access

See Also:
IClient.setStreamWriteAccess(String)

getSharedObjectReadAccess

public String **getSharedObjectReadAccess**()

Get the default shared object read access

Returns:
default shared object read access

See Also:
IClient.getSharedObjectReadAccess()

setSharedObjectReadAccess

public void **setSharedObjectReadAccess**(String sharedObjectReadAccess)

Set the default shared object read access

Parameters:
sharedObjectReadAccess - default shared object read access

See Also:
IClient.setSharedObjectReadAccess(String)

getSharedObjectWriteAccess

public String **getSharedObjectWriteAccess**()

Get the default shared object write access

Returns:
default shared object write access

See Also:
IClient.getSharedObjectWriteAccess()

---

setSharedObjectWriteAccess

public void **setSharedObjectWriteAccess**(String sharedObjectWriteAccess)

Set the default shared object write access

Parameters:
sharedObjectWriteAccess - default shared object write access

See Also:
IClient.setSharedObjectWriteAccess(String)

---

getRTPPublishAuthenticationMethod

public String **getRTPPublishAuthenticationMethod**()

Get the RTP publish authentication method (as defined in conf/Authentication.xml)

Returns:
RTP publish authentication method

---

setRTPPublishAuthenticationMethod

public void **setRTPPublishAuthenticationMethod**(String rtpPublishAuthenticationMethod)

Set the RTP publish authentication method (as defined in conf/Authentication.xml)

Parameters:
rtpPublishAuthenticationMethod - RTP publish authentication method

---

getRTPPlayAuthenticationMethod

public String **getRTPPlayAuthenticationMethod**()

Get the RTP play authentication method (as defined in conf/Authentication.xml)

Returns:
RTP play authentication method

---

setRTPPlayAuthenticationMethod

public void **setRTPPlayAuthenticationMethod**(String rtpPlayAuthenticationMethod)

Set the RTP play authentication method (as defined in conf/Authentication.xml)

Parameters:
rtpPlayAuthenticationMethod - RTP play authentication method

getRTPAVSyncMethod

`public int` **`getRTPAVSyncMethod`**`()`

Get RTP audio/video sync method (RTPStream.AVSYNCMETHODS_SENDERREPORT, RTPStream.AVSYNCMETHODS_SYSTEMCLOCK, RTPStream.AVSYNCMETHODS_RTPTIMECODE)

Returns:
RTP audio/video sync method

setRTPAVSyncMethod

`public void` **`setRTPAVSyncMethod`**`(int rtpAVSyncMethod)`

Set RTP audio/video sync method (RTPStream.AVSYNCMETHODS_SENDERREPORT, RTPStream.AVSYNCMETHODS_SYSTEMCLOCK, RTPStream.AVSYNCMETHODS_RTPTIMECODE)

Parameters:
`rtpAVSyncMethod` - RTP audio/video sync method

getRTPMaxRTCPWaitTime

`public int` **`getRTPMaxRTCPWaitTime`**`()`

Get the maximum time to wait for RTCP packets (milliseconds)

Returns:
maximum time to wait for RTCP packets (milliseconds)

setRTPMaxRTCPWaitTime

`public void` **`setRTPMaxRTCPWaitTime`**`(int rtpMaxRTCPWaitTime)`

Set the maximum time to wait for RTCP packets (milliseconds)

Parameters:
`rtpMaxRTCPWaitTime` - maximum time to wait for RTCP packets (milliseconds)

getRTPSessions

`public java.util.List` **`getRTPSessions`**`(String streamName)`

Get a list of RTP sessions running under this application instance playing a given stream name

Parameters:
`streamName` - stream name

Returns:
list of RTP sessions running under this application instance playing a given stream name

getRTPSessions

`public java.util.List` **`getRTPSessions`**`()`

Get a list of RTP sessions running under this application instance

Returns:
list of RTP sessions running under this application instance

getRTPSessionCountsByName

```
public java.util.Map getRTPSessionCountsByName()
```

Get a map of stream names and session counts of RTP sessions

Returns:
map of stream names and session counts

getRTPSessionCount

```
public int getRTPSessionCount(String streamName)
```

Get the number of RTP player streams playing a given stream name

Parameters:
streamName - strean name

Returns:
the number of RTP sessions

getRTPSessionCount

```
public int getRTPSessionCount()
```

Get the number of RTP sessions running under this application instance

Returns:
the number of RTP sessions running under this application instance

addRTPSession

```
public void addRTPSession(RTPSession rtpSession)
```

Add an RTP session to this application instance

Parameters:
rtpSession - RTP session to add

registerPlayRTPSession

```
public void registerPlayRTPSession(RTPSession rtpSession)
```

Register an RTP session as a play session

Parameters:
rtpSession - RTP session to register

removeRTPSession

```
public void removeRTPSession(RTPSession rtpSession)
```

Remove an RTP session from this application instance

Parameters:
rtpSession - RTP session to remove

getClientsLockObj

```
public edu.emory.mathcs.backport.java.util.concurrent.locks.WMSReadWriteLock
getClientsLockObj()
```

Get the read/write lock for this application instance

Returns:

read/write lock for this application instance

getStreamProperties

```
public WMSProperties getStreamProperties()
```

Get the property collection of stream settings that are specific to this application instance

Returns:

property collection of stream settings

getMediaCasterProperties

```
public WMSProperties getMediaCasterProperties()
```

Get the property collection of media caster settings that are specific to this application instance

Returns:

property collection of media caster settings

getMediaReaderProperties

```
public WMSProperties getMediaReaderProperties()
```

Get the property collection of media reader settings that are specific to this application instance

Returns:

property collection of media reader settings

getMediaWriterProperties

```
public WMSProperties getMediaWriterProperties()
```

Get the property collection of media reader settings that are specific to this application instance

Returns:

property collection of media reader settings

getRTPProperties

```
public WMSProperties getRTPProperties()
```

Get the property collection of RTP settings that are specific to this application instance

Returns:

property collection of RTP settings

getLiveStreamPacketizerProperties

public `WMSProperties` **getLiveStreamPacketizerProperties**()

Get the property collection of LiveStreamPacketizer settings that are specific to this application instance

Returns:
property collection of LiveStreamPacketizer settings

getTranscoderProperties

public `WMSProperties` **getTranscoderProperties**()

Get the property collection of Transcoder settings that are specific to this application instance

Returns:
property collection of Transcoder settings

getHTTPStreamerProperties

public `WMSProperties` **getHTTPStreamerProperties**()

Get the property collection of HTTPStreamer settings that are specific to this application instance

Returns:
property collection of HTTPStreamer settings

getMaxStorageDirDepth

public int **getMaxStorageDirDepth**()

Maximum folder depth allowed for the StreamStorageDir and SharedObjectStorageDir paths

Returns:
folder depth

setMaxStorageDirDepth

public void **setMaxStorageDirDepth**(int maxStorageDirDepth)

Maximum folder depth allowed for the StreamStorageDir and SharedObjectStorageDir paths

Parameters:
maxStorageDirDepth - folder depth

getStreamFileMapper

public `IMediaStreamFileMapper` **getStreamFileMapper**()

Get the stream file mapper. See IMediaStreamFileMapper

Returns:
streamFileMapper stream file mapper

setStreamFileMapper

public void **setStreamFileMapper**(`IMediaStreamFileMapper` streamFileMapper)

Set the stream file mapper. See IMediaStreamFileMapper

Parameters:
> `streamFileMapper` - stream file mapper

decodeStorageDir

```
public String decodeStorageDir(String storageDir)
```

This function will take a storage path that uses variables and expand the variables based on the context. It supports the following variables (as well as any system variables): ${com.wowza.wms.AppHome}: Application home directory ${com.wowza.wms.ConfigHome}: Configuration home directory ${com.wowza.wms.context.VHostConfigHome}: Virtual configuration path ${com.wowza.wms.context.VHost}: Virtual host name ${com.wowza.wms.context.Application}: Application name ${com.wowza.wms.context.ApplicationInstance}: Application instance name

getLiveStreamPacketizerList

```
public String getLiveStreamPacketizerList()
```

Get the comma separated list of LiveStreamPacketizers names being used by this application (see conf/LiveStreamPacketizers.xml)

Returns:
> comma separated list of LiveStreamPacketizers names

getHTTPStreamerList

```
public String getHTTPStreamerList()
```

Get the comma separated list of HTTPStreamers names being used by this application (see conf/HTTPStreamers.xml)

Returns:
> comma separated list of HTTPStreamers names

setLiveStreamPacketizerList

```
public void setLiveStreamPacketizerList(String liveStreamPacketizerList)
```

Set the comma separated list of LiveStreamPacketizers names being used by this application (see conf/LiveStreamPacketizers.xml)

Parameters:
> `liveStreamPacketizerList` - comma separated list of LiveStreamPacketizers names

setHTTPStreamerList

```
public void setHTTPStreamerList(String httpStreamerList)
```

Set the comma separated list of HTTPStreamer names being used by this application (see conf/HTTPStreamers.xml)

Parameters:
> `httpStreamerList` - comma separated list of HTTPStreamer names

containsHTTPStreamer

```
public boolean containsHTTPStreamer(String httpStreamer)
```

Does this application instance allow streaming of a given HTTPStreamer

Parameters:

`httpStreamer` - HTTP Streamer name

Returns:
true is this type of streaming is allowed

containsLiveStreamPacketizer

`public boolean` **`containsLiveStreamPacketizer`**`(String liveStreamPacketizer)`

Does this application instance contain a references to this live stream packetizer. If it is true we consider this a live stream source for the HTTP streamer. If false then we consider this a video on demand source.

Parameters:
`liveStreamPacketizer` - live stream packetizer name

Returns:
true if contains reference to it

containsDvrRecorder

`public boolean` **`containsDvrRecorder`**`(String dvrRecorder)`

Does this application instance contain a references to this DVR recorder. If it is true we consider this a DVR source for the HTTP streamer.

Parameters:
`dvrRecorder` - DVR recorder name

Returns:
true if contains reference to it

getVODTimedTextProviderList

`public String` **`getVODTimedTextProviderList`**`()`

Get the comma separated list of VODTimedTextProvider names being used by this application (see conf/TimedTextProviders.xml)

Returns:
comma separated list of VODTimedTextProvider names

setVODTimedTextProviderList

`public void` **`setVODTimedTextProviderList`**`(String timedTextProviderList)`

Set the comma separated list of VODTimedTextProvider names being used by this application (see conf/TimedTextProviders.xml)

Parameters:
`timedTextProviderList` - comma separated list of VODTimedTextProvider names

getVODTimedTextProviderSet

`public java.util.List` **`getVODTimedTextProviderSet`**`()`

getTimedTextProperties

public `WMSProperties` **getTimedTextProperties**()

> Get the property collection of timed text settings that are specific to this application instance. These are defined in Application/TimedText/Properties tag in Application.xml
>
> **Returns:**
>> property collection of Timed Text settings

---

getStreamNameAliasProvider

public `IMediaStreamNameAliasProvider` **getStreamNameAliasProvider**()

> Get the stream name alias provider
>
> **Returns:**
>> stream name alias provider

---

setStreamNameAliasProvider

public void **setStreamNameAliasProvider**(`IMediaStreamNameAliasProvider` streamNameAliasProvider)

> Set the stream name alias provider
>
> **Parameters:**
>> streamNameAliasProvider - stream name alias provider

---

getPublishers

public java.util.List **getPublishers**()

> Get the set of server side publishers
>
> **Returns:**
>> set of server side publishers

---

getPublisherCount

public int **getPublisherCount**()

> Get the current number of server side publishers
>
> **Returns:**
>> number of server side publishers

---

addPublisher

public void **addPublisher**(`Publisher` publisher)

> Add a server side publisher to this application instance
>
> **Parameters:**
>> publisher - server side publisher

---

removePublisher

```
public void removePublisher(Publisher publisher)
```

Remove a server side publisher from this application instance

Parameters:
publisher - server side publisher

getHTTPStreamerSessions

```
public java.util.List getHTTPStreamerSessions(int protocol,
        String streamName)
```

Get the HTTPStreamerSessions associated with this application instance for a stream name by protocol. See (IHTTPStreamerSession.SESSIONPROTOCOL_*) for protocols

Parameters:
protocol - streaming protocol (IHTTPStreamerSession.SESSIONPROTOCOL_*)
streamName - stream name

Returns:
HTTPStreamerSessions associated with this application instance

getHTTPStreamerSessions

```
public java.util.List getHTTPStreamerSessions(String streamName)
```

Get the HTTPStreamerSessions associated with this application instance for a stream name

Parameters:
streamName - stream name

Returns:
HTTPStreamerSessions associated with this application instance

getHTTPStreamerSessionCountsByName

```
public java.util.Map getHTTPStreamerSessionCountsByName(int protocol)
```

Get a map of session counts by name for a given protocol

Parameters:
protocol - streaming protocol (IHTTPStreamerSession.SESSIONPROTOCOL_*)

Returns:
map of session counts by name

getHTTPStreamerSessionCount

```
public int getHTTPStreamerSessionCount(String streamName)
```

Get the current number of HTTPStreamerSessions associated with this application instance and stream name

Parameters:
streamName - stream name

Returns:
number of HTTPStreamerSessions associated with this application instance

getHTTPStreamerSessionCount

```
public int getHTTPStreamerSessionCount(int protocol,
        String streamName)
```

Get the current number of HTTPStreamerSessions associated with this application instance and stream name by protocol . See (IHTTPStreamerSession.SESSIONPROTOCOL_*) for protocols

Parameters:
> `protocol` - streaming protocol (IHTTPStreamerSession.SESSIONPROTOCOL_*)
> `streamName` - stream name

Returns:
> HTTPStreamerSessions associated with this application instance

getHTTPStreamerSessions

```
public java.util.List getHTTPStreamerSessions()
```

Get the HTTPStreamerSessions associated with this application instance

Returns:
> HTTPStreamerSessions associated with this application instance

getHTTPStreamerSessions

```
public java.util.List getHTTPStreamerSessions(int protocol)
```

Get the HTTPStreamerSessions associated with this application instance by protocol. See (IHTTPStreamerSession.SESSIONPROTOCOL_*) for protocols

Parameters:
> `protocol` - streaming protocol (IHTTPStreamerSession.SESSIONPROTOCOL_*)

Returns:
> HTTPStreamerSessions associated with this application instance

getHTTPStreamerSessionCount

```
public int getHTTPStreamerSessionCount()
```

Get the current number of HTTPStreamerSessions associated with this application instance

Returns:
> current number of HTTPStreamerSessions associated with this application instance

getHTTPStreamerSessionCount

```
public int getHTTPStreamerSessionCount(int protocol)
```

Get the current number of HTTPStreamerSessions associated with this application instance by protocol. See (IHTTPStreamerSession.SESSIONPROTOCOL_*) for protocols

Parameters:
> `protocol` - streaming protocol (IHTTPStreamerSession.SESSIONPROTOCOL_*)

Returns:
> current number of HTTPStreamerSessions associated with this application instance

addHTTPStreamerSession

public void **addHTTPStreamerSession**(<u>IHTTPStreamerSession</u> httpStreamerSession)

Add a HTTPStreamerSession to this application instance

Parameters:
httpStreamerSession - HTTPStreamerSession

removeHTTPStreamerSession

public void **removeHTTPStreamerSession**(<u>IHTTPStreamerSession</u> httpStreamerSession)

Remove a HTTPStreamerSession from this application instance

Parameters:
httpStreamerSession - HTTPStreamerSession

getHTTPStreamerApplicationContext

public <u>IHTTPStreamerApplicationContext</u> **getHTTPStreamerApplicationContext**(String httpStreamName,
boolean doCreate)

Get the HTTPStreamer application context for a given HTTPStreamer adapter

Parameters:
httpStreamName - HTTPStreamer adapter name
doCreate - create if it does not exist

Returns:
HTTPStreamer application context

addRTPIncomingDatagramPortRange

public void **addRTPIncomingDatagramPortRange**(int startPort,
int endPort)

Add a port range to the list of valid incoming RTP UDP ports

Parameters:
startPort - starting port number
endPort - end port number

addRTPIncomingDatagramPortAll

public void **addRTPIncomingDatagramPortAll**()

Allow all incoming RTP UDP ports for this application instance

isRTPIncomingDatagramPortValid

public boolean **isRTPIncomingDatagramPortValid**(int port)

Check a port number to be sure it is a valid RTP UDP port for this application instance

Parameters:
port - port number

Returns:
>   true if the port is valid

readAppInstConfig

```
public String readAppInstConfig(String sName)
```

> Method to read xml config file..

writeAppInstConfig

```
public boolean writeAppInstConfig(String sName,
        String data)
```

> Method to write xml config file..

getLiveStreamPacketizerControl

```
public ILiveStreamPacketizerControl getLiveStreamPacketizerControl()
```

> Get the Live Stream Packetizer Controller. This class will get called each time a stream is to be packetized using the LiveStreamPacketizer mechanism.

> **Returns:**
> >   Live Stream Packetizer Controller

setLiveStreamPacketizerControl

```
public void setLiveStreamPacketizerControl(ILiveStreamPacketizerControl
liveStreamPacketizerControl)
```

> Set the Live Stream Packetizer Contoller. This class will get called each time a stream is to be packetized using the LiveStreamPacketizer mechanism.

> **Parameters:**
> >   liveStreamPacketizerControl - Live Stream Packetizer Contoller

resetMediaCasterStream

```
public boolean resetMediaCasterStream(String streamName)
```

>   Reset a media caster stream

> **Parameters:**
> >   streamName - stream name

> **Returns:**
> >   true if successful

resetMediaCasterStream

```
public boolean resetMediaCasterStream(String streamName,
        String streamExt)
```

> Reset a media caster stream

> **Parameters:**
> >   streamName - stream name

```
streamExt - stream extension
```

Returns:
true if successful

startMediaCasterStream

```
public boolean startMediaCasterStream(String streamName,
        String streamExt,
        String mediaCasterType)
```

Start a media caster stream

Parameters:
`streamName` - stream name
`streamExt` - stream extension
`mediaCasterType` - media caster stream type

Returns:
true if successful

startMediaCasterStream

```
public boolean startMediaCasterStream(String streamName,
        String mediaCasterType)
```

Start a media caster stream

Parameters:
`streamName` - stream name
`mediaCasterType` - media caster stream type

Returns:
true if successful

stopMediaCasterStream

```
public void stopMediaCasterStream(String streamName)
```

Stop a media caster stream

Parameters:
`streamName` - stream name

getContextStr

```
public String getContextStr()
```

Returns the application context string in the form [application]/[appInstance].

Returns:
application context string

getPublishStreamNames

```
public java.util.List getPublishStreamNames()
```

Get the list of live stream names currently being published.

Returns:
    list of live stream names currently being published

addMediaWriterListener

public void **addMediaWriterListener**(IMediaWriterActionNotify listener)

Add a MediaWriter listener class. See IMediaWriterActionNotify

Parameters:
    listener - MediaWriter listener class

removeMediaWriterListener

public void **removeMediaWriterListener**(IMediaWriterActionNotify listener)

remove MediaWriter listener class. See IMediaWriterActionNotify

Parameters:
    listener - MediaWriter listener class

notifyMediaWriterOnWriteComplete

public void **notifyMediaWriterOnWriteComplete**(IMediaStream stream,
        java.io.File file)

Notify all MediaWriter listeners of onWriteComplete

Parameters:
    stream - media stream
    file - file that was written

notifyMediaWriterOnFLVAddMetadata

public void **notifyMediaWriterOnFLVAddMetadata**(IMediaStream stream,
        java.util.Map extraMetadata)

Notify all MediaWriter listeners of onFLVAddMetadata

Parameters:
    stream - media stream
    extraMetadata - meta to add to the file

getMediaCasterValidator

public IMediaCasterValidateMediaCaster **getMediaCasterValidator**()

Get the MediaCaster validator interface for this application instance

Returns:
    MediaCaster validator interface

setMediaCasterValidator

public void **setMediaCasterValidator**(IMediaCasterValidateMediaCaster
mediaCasterValidator)

Set the MediaCaster validator interface for this application instance

(continued from last page)

Parameters:

mediaCasterValidator - MediaCaster validator interface

touch

public void **touch**()

Touch the application instance so that it stays loaded for at least applicationInstanceTouchTimeout

getLastTouchTime

public long **getLastTouchTime**()

Get the last time the instance was touched (milliseconds)

Returns:

last time the instance was touched (milliseconds)

getApplicationInstanceTouchTimeout

public int **getApplicationInstanceTouchTimeout**()

Get the application instance touch timeout (milliseconds). Default is 5000.

Returns:

application instance touch timeout (milliseconds)

setApplicationInstanceTouchTimeout

public void **setApplicationInstanceTouchTimeout**(int applicationInstanceTouchTimeout)

Set the application instance touch timeout (milliseconds). Default is 5000.

Parameters:

applicationInstanceTouchTimeout - application instance touch timeout (milliseconds)

getRTSPSessionTimeout

public int **getRTSPSessionTimeout**()

Get the RTSP session timeout (milliseconds)

Returns:

RTSP session timeout (milliseconds)

setRTSPSessionTimeout

public void **setRTSPSessionTimeout**(int rtspSessionTimeout)

Set the RTSP session timeout (milliseconds)

Parameters:

rtspSessionTimeout - RTSP session timeout (milliseconds)

getRTSPMaximumPendingWriteBytes

public int **getRTSPMaximumPendingWriteBytes**()

Get the maximum number of pending write bytes for an RTSP session

Returns:

maximum number of pending write bytes for an RTSP session

setRTSPMaximumPendingWriteBytes

public void **setRTSPMaximumPendingWriteBytes**(int rtspMaximumPendingWriteBytes)

Set the maximum number of pending write bytes for an RTSP session

Parameters:

rtspMaximumPendingWriteBytes - maximum number of pending write bytes for an RTSP session

addMediaReaderListener

public void **addMediaReaderListener**([IMediaReaderActionNotify](#) mediaReaderListener)

Add media reader listener. see IMediaReaderActionNotify

Parameters:

mediaReaderListener - media reader listener

removeMediaReaderListener

public void **removeMediaReaderListener**([IMediaReaderActionNotify](#) mediaReaderListener)

Remove media reader listener. see IMediaReaderActionNotify

Parameters:

mediaReaderListener - media reader listener

notifyMediaReaderCreate

public void **notifyMediaReaderCreate**([IMediaReader](#) mediaReader)

Notify media reader notifyMediaReaderCreate

Parameters:

mediaReader - media reader

notifyMediaReaderInit

public void **notifyMediaReaderInit**([IMediaReader](#) mediaReader,
        [IMediaStream](#) stream)

Notify media reader notifyMediaReaderInit

Parameters:

mediaReader - media reader
stream - media stream

notifyMediaReaderOpen

public void **notifyMediaReaderOpen**([IMediaReader](#) mediaReader,
        [IMediaStream](#) stream)

Notify media reader notifyMediaReaderOpen

> **Parameters:**
> mediaReader - media reader
> stream - media stream

---

notifyMediaReaderExtractMetaData

public void **notifyMediaReaderExtractMetaData**(<u>IMediaReader</u> mediaReader,
    <u>IMediaStream</u> stream)

> Notify media reader notifyMediaReaderExtractMetaData

> **Parameters:**
> mediaReader - media reader
> stream - media stream

---

notifyMediaReaderClose

public void **notifyMediaReaderClose**(<u>IMediaReader</u> mediaReader,
    <u>IMediaStream</u> stream)

> Notify media reader notifyMediaReaderClose

> **Parameters:**
> mediaReader - media reader
> stream - media stream

---

getRTSPBindIpAddress

public String **getRTSPBindIpAddress**()

> Set the IP address to which UDP ports will be bound for RTSP/RTP sessions

> **Returns:**
> IP address to which UDP ports will be bound for RTSP/RTP sessions

---

setRTSPBindIpAddress

public void **setRTSPBindIpAddress**(String rtspBindIpAddress)

> Get the IP address to which UDP ports will be bound for RTSP/RTP sessions

> **Parameters:**
> rtspBindIpAddress - IP address to which UDP ports will be bound for RTSP/RTP sessions

---

getRTSPConnectionIpAddress

public String **getRTSPConnectionIpAddress**()

> Get the connection IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session

> **Returns:**
> connection IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session

---

setRTSPConnectionIpAddress

public void **setRTSPConnectionIpAddress**(String rtspConnectionIpAddress)

> Set the connection IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session

Parameters:

> `rtspConnectionIpAddress` - connection IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session

getRTSPConnectionAddressType

`public String` **`getRTSPConnectionAddressType`**`()`

> Get the connection IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session

> **Returns:**

>> the connection IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session

setRTSPConnectionAddressType

`public void` **`setRTSPConnectionAddressType`**`(String rtspConnectionAddressType)`

> Set the connection IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session

> **Parameters:**

>> `rtspConnectionAddressType`

getRTSPOriginIpAddress

`public String` **`getRTSPOriginIpAddress`**`()`

> Get the origin IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session

> **Returns:**
>> origin IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session

setRTSPOriginIpAddress

`public void` **`setRTSPOriginIpAddress`**`(String rtspOriginIpAddress)`

> Set the origin IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session

> **Parameters:**

>> `rtspOriginIpAddress` - origin IP address to used in the Session Description Protocol data exchanged for an RTSP/RTP session

getRTSPOriginAddressType

`public String` **`getRTSPOriginAddressType`**`()`

> Get the origin IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session

> **Returns:**
>> origin IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session

setRTSPOriginAddressType

`public void` **`setRTSPOriginAddressType`**`(String rtspOriginAddressType)`

> Set the origin IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session

> **Parameters:**

rtspOriginAddressType - origin IP address type (IP4) to used in the Session Description Protocol data exchanged for an RTSP/RTP session

addLiveStreamPacketizerListener

public void **addLiveStreamPacketizerListener**([ILiveStreamPacketizerActionNotify](#) liveStreamPacketizerListener)

Add a Live Stream Packetizer listener (see: ILiveStreamPacketizerActionNotify)

Parameters:
liveStreamPacketizerListener - Live Stream Packetizer listener

removeLiveStreamPacketizerListener

public void **removeLiveStreamPacketizerListener**([ILiveStreamPacketizerActionNotify](#) liveStreamPacketizerListener)

Remove a Live Stream Packetizer listener (see: ILiveStreamPacketizerActionNotify)

Parameters:
liveStreamPacketizerListener - Live Stream Packetizer listener

notifyLiveStreamPacketizerCreate

public void **notifyLiveStreamPacketizerCreate**([ILiveStreamPacketizer](#) liveStreamPacketizer,
        String streamName)

Notify Live Stream Packetizer Create

Parameters:
liveStreamPacketizer - Live Stream Packetizer listener

notifyLiveStreamPacketizerDestroy

public void **notifyLiveStreamPacketizerDestroy**([ILiveStreamPacketizer](#) liveStreamPacketizer)

Notify Live Stream Packetizer Destory

Parameters:
liveStreamPacketizer - Live Stream Packetizer listener

notifyLiveStreamPacketizerInit

public void **notifyLiveStreamPacketizerInit**([ILiveStreamPacketizer](#) liveStreamPacketizer,
        String streamName)

Notify Live Stream Packetizer Init

Parameters:
liveStreamPacketizer - Live Stream Packetizer listener

isValidateFMLEConnections

public boolean **isValidateFMLEConnections**()

Returns true if validating FMLE connection (default is false)

Returns:
      true if validating FMLE connection

setValidateFMLEConnections

`public void `**`setValidateFMLEConnections`**`(boolean validateFMLEConnections)`

Returns true if validating FMLE connection (default is false)

Parameters:
      `validateFMLEConnections` - true if validating FMLE connection

addLiveStreamTranscoderListener

`public void `**`addLiveStreamTranscoderListener`**`(ILiveStreamTranscoderNotify liveStreamTranscoderListener)`

Add a live stream transcoder listener

Parameters:
      `liveStreamTranscoderListener` - live stream transcoder listener

removeLiveStreamTranscoderListener

`public void `**`removeLiveStreamTranscoderListener`**`(ILiveStreamTranscoderNotify liveStreamTranscoderListener)`

Remove a live stream transcoder listener

Parameters:
      `liveStreamTranscoderListener` - live stream transcoder listener

notifyLiveStreamTranscoderCreate

`public void `**`notifyLiveStreamTranscoderCreate`**`(ILiveStreamTranscoder liveStreamTranscoder,`
      `IMediaStream stream)`

Notify live stream transcoder create

Parameters:
      `liveStreamTranscoder` - live stream transcoder
      `stream` - stream

notifyLiveStreamTranscoderDestroy

`public void `**`notifyLiveStreamTranscoderDestroy`**`(ILiveStreamTranscoder liveStreamTranscoder,`
      `IMediaStream stream)`

Notify live stream transcoder destroy

Parameters:
      `liveStreamTranscoder` - live stream transcoder
      `stream` - stream

notifyLiveStreamTranscoderInit

```
public void notifyLiveStreamTranscoderInit(ILiveStreamTranscoder liveStreamTranscoder,
        IMediaStream stream)
```

Notify live stream transcoder init

Parameters:
liveStreamTranscoder - live stream transcoder
stream - stream

containsLiveStreamTranscoder

```
public boolean containsLiveStreamTranscoder(String liveStreamTranscoder)
```

Return true if this application instance contains the transcoder name

Parameters:
liveStreamTranscoder - transcoder name

Returns:
true if this application instance contains the transcoder name

getLiveStreamTranscoderList

```
public String getLiveStreamTranscoderList()
```

Get comma separated list of transcoders to use for this application instance

Returns:
comma separated list of transcoders

setLiveStreamTranscoderList

```
public void setLiveStreamTranscoderList(String liveStreamTranscoderList)
```

Set comma separated list of transcoders to use for this application instance

Parameters:
liveStreamTranscoderList - comma separated list of transcoders

getLiveStreamTranscoderControl

```
public ILiveStreamTranscoderControl getLiveStreamTranscoderControl()
```

Get the Live Stream Transcoder Contoller. This class will get called each time a stream is to be transcoded using the LiveStreamTranscoder mechanism.

Returns:
Live Stream Transcoder Contoller

setLiveStreamTranscoderControl

```
public void setLiveStreamTranscoderControl(ILiveStreamTranscoderControl
liveStreamTranscoderControl)
```

Set the Live Stream Transcoder Contoller. This class will get called each time a stream is to be transcoded using the LiveStreamTranscoder mechanism.

Parameters:

      `liveStreamTranscoderControl` - Live Stream Transcoder Contoller

---

getTranscoderApplicationContext

`public LiveStreamTranscoderApplicationContext` **`getTranscoderApplicationContext`**`()`

Get live stream transcoder application context

Returns:

      live stream transcoder application context

---

getDvrProperties

`public` [`WMSProperties`](#) **`getDvrProperties`**`()`

Get the property collection of DVR settings that are specific to this application instance. These are defined in Application/DVR/Properties tag in Application.xml

Returns:

      property collection of DVR settings

---

getDvrApplicationContext

`public DvrApplicationContext` **`getDvrApplicationContext`**`()`

Get live stream dvr application context

Returns:

      live stream dvr application context

---

getLiveStreamDvrRecorderControl

`public` [`ILiveStreamDvrRecorderControl`](#) **`getLiveStreamDvrRecorderControl`**`()`

Get the Live Stream DVR Recorder Controller. This class will get called each time a stream is to be DVR-ed.

Returns:

      Live Stream DVR Controller

---

setLiveStreamDvrRecorderControl

`public void` **`setLiveStreamDvrRecorderControl`**`(`[`ILiveStreamDvrRecorderControl`](#)` controller)`

Set the Live Stream DVR Controller.

Parameters:

      `controller` - Live Stream DVR Controller

---

getDvrRecorderList

`public String` **`getDvrRecorderList`**`()`

Get the comma separated list of Dvr Recorder names being used by this application (see conf/Dvr.xml)

Returns:

      comma separated list of Dvr Recorder names

setDvrRecorderList

public void **setDvrRecorderList**(String recorderList)

Set the comma separated list of Dvr Recorder names being used by this application (see conf/Dvr.xml)

Parameters:
recorderList - comma separated list of Dvr Recorder names

addDvrRecorderListener

public void **addDvrRecorderListener**([ILiveStreamDvrRecorderActionNotify](#) listener)

Add a Dvr Recorder listener (see: ILiveStreamDvrRecorderActionNotify)

Parameters:
listener - Dvr Recorder listener

removeDvrRecorderListener

public void **removeDvrRecorderListener**([ILiveStreamDvrRecorderActionNotify](#) listener)

Remove a Dvr Recorder listener (see: ILiveStreamDvrRecorderActionNotify)

Parameters:
listener - Dvr Recorder listener

notifyLiveStreamDvrRecorderCreate

public void **notifyLiveStreamDvrRecorderCreate**([ILiveStreamDvrRecorder](#) dvr,
String streamName)

Notify Dvr Recorder Create

Parameters:
dvr - DVR Recorder listener
streamName - stream Name

notifyLiveStreamDvrRecorderInit

public void **notifyLiveStreamDvrRecorderInit**([ILiveStreamDvrRecorder](#) dvr,
String streamName)

Notify DVR Recorder has been initialized.

Parameters:
dvr - DVR Recorder listener * @param streamName stream Name

notifyLiveStreamDvrRecorderDestroy

public void **notifyLiveStreamDvrRecorderDestroy**([ILiveStreamDvrRecorder](#) dvr)

Notify DVR Recorder has been destroyed.

Parameters:
dvr - DVR Recorder listener

addDvrStreamManagerListener

public void **addDvrStreamManagerListener**(IDvrStreamManagerActionNotify listener)

Add a Dvr Application Store Manager listener (see: IDvrStoreActionNotify)

Parameters:
listener - Dvr Application Store Manager listener

removeDvrStreamManagerListener

public void **removeDvrStreamManagerListener**(IDvrStreamManagerActionNotify listener)

Remove a Dvr Application Store Manager listener (see: IDvrStoreActionNotify)

Parameters:
listener - Dvr Application Store Manager listener

notifyDvrStreamManagerCreate

public void **notifyDvrStreamManagerCreate**(IDvrStreamManager dvrStoreManager)

Notify listeners that Dvr Application Store Manager has been created.

Parameters:
dvrStoreManager - Dvr Application Store Manager

notifyDvrStreamManagerInit

public void **notifyDvrStreamManagerInit**(IDvrStreamManager dvrStoreManager)

Notify listeners that Dvr Application Store Manager has been initialized.

Parameters:
dvrStoreManager - Dvr Application Store Manager

notifyDvrStreamManagerDestroy

public void **notifyDvrStreamManagerDestroy**(IDvrStreamManager dvrManager)

Notify listeners that Dvr Application Store Manager has been destroyed.

Parameters:
dvrManager - Dvr Application Store Manager

getMediaReaderContentType

public int **getMediaReaderContentType**(String mediaType)

Get the content type of a media stream name prefix (see IMediaReader.CONTENTTYPE_*)

Parameters:
mediaType - mediaType (such as flv or smil)

Returns:
content type (see IMediaReader.CONTENTTYPE_*)

getMediaListProvider

public [IMediaListProvider](#) **getMediaListProvider**()

Get the current media list provider. The media list provider is used to resolve amlst:streamname requests to a media list (equivelent to a SMIL file).

Returns:
media list provider

setMediaListProvider

public void **setMediaListProvider**([IMediaListProvider](#) mediaListProvider)

Set the current media list provider. The media list provider is used to resolve amlst:streamname requests to a media list (equivelent to a SMIL file).

Parameters:
mediaListProvider - media list provider

getMediacasterRTPRTSPRTPTransportMode

public int **getMediacasterRTPRTSPRTPTransportMode**()

RTP MediaCaster RTSP/RTP transport mode. See RTPMediaCaster.RTSPTRANSPORTMODE_*

Returns:
RTP MediaCaster RTSP/RTP transport mode

setMediacasterRTPRTSPRTPTransportMode

public void **setMediacasterRTPRTSPRTPTransportMode**(int mediacasterRTPRTSPRTPTransportMode)

RTP MediaCaster RTSP/RTP transport mode. See RTPMediaCaster.RTSPTRANSPORTMODE_*

Parameters:
mediacasterRTPRTSPRTPTransportMode - RTP MediaCaster RTSP/RTP transport mode

getProtocolUsage

public boolean[] **getProtocolUsage**()

Get the protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)

Returns:
protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)

getProtocolUsage

public void **getProtocolUsage**(boolean[] protocolsInUse)

Get the protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)

isDebugAppTimeout

public boolean **isDebugAppTimeout**()

If true appTimeout processing will be logged.

Returns:

    true appTimeout processing will be logged

setDebugAppTimeout

```
public void setDebugAppTimeout(boolean debugAppTimeout)
```

If true appTimeout processing will be logged.

Parameters:

    debugAppTimeout - true appTimeout processing will be logged

Returns:

    true appTimeout processing will be logged

com.wowza.wms.application
Interface IApplicationInstanceNotify

public interface **IApplicationInstanceNotify**
extends

IApplicationInstanceNotify: listener interface used by IApplication addApplicationInstanceListener

Method Summary

void	onApplicationInstanceCreate(IApplicationInstance applicationInstance) Triggered when applicationInstance created
void	onApplicationInstanceDestroy(IApplicationInstance applicationInstance) Triggered when applicationInstance destroyed

Methods

onApplicationInstanceCreate

public void **onApplicationInstanceCreate**(IApplicationInstance applicationInstance)

Triggered when applicationInstance created

Parameters:
applicationInstance - applicationInstance

onApplicationInstanceDestroy

public void **onApplicationInstanceDestroy**(IApplicationInstance applicationInstance)

Triggered when applicationInstance destroyed

Parameters:
applicationInstance - applicationInstance

com.wowza.wms.application
Interface IApplicationNotify

public interface **IApplicationNotify**
extends

IApplicationNotify: listener interface used by IVHost addApplicationListener

Method Summary

void	onApplicationCreate(IApplication application) Triggered when application created
void	onApplicationDestroy(IApplication application) Triggered when application destroyed

Methods

onApplicationCreate

public void **onApplicationCreate**(IApplication application)

> Triggered when application created

Parameters:
> application - application

onApplicationDestroy

public void **onApplicationDestroy**(IApplication application)

> Triggered when application destroyed

Parameters:
> application - application

com.wowza.wms.application
Class WMSProperties

```
java.lang.Object
    │
    +-java.util.AbstractMap
        │
        +-java.util.HashMap
            │
            +-com.wowza.wms.application.WMSProperties
```

All Implemented Interfaces:
    java.util.Map, java.io.Serializable, Cloneable, java.util.Map

---

public class **WMSProperties**
extends java.util.HashMap

WMSProperties: generic properties container used by many class to store extended property information. Acts like a simple Map with some simple utilities for performing type conversion.

Constructor Summary

public	[WMSProperties](#)()

Method Summary

static void	[cloneProperties](#)([WMSProperties](#) from, [WMSProperties](#) to) Copy all properties from "from" properties object to "to" properties object.
String[]	[getAllAsStrings](#)() Return all properties as String[].
Object	[getProperty](#)(String name) Get property value as generic object.
boolean	[getPropertyBoolean](#)(String name, boolean defaultVal) Get property as boolean, return default value if does not exist.
double	[getPropertyDouble](#)(String name, double defaultVal) Get property as double, return default value if does not exist.
int	[getPropertyInt](#)(String name, int defaultVal) Get property as int, return default value if does not exist.
long	[getPropertyLong](#)(String name, long defaultVal) Get property as long, return default value if does not exist.
String	[getPropertyStr](#)(String name) Get property as String
String	[getPropertyStr](#)(String name, String defaultVal) Get property as String, return default value if does not exist.
void	[putAll](#)(java.util.Map m)

---

void	setProperty(String name, Object value) Set property to generic object.	
String	toString()	

Methods inherited from class `java.util.HashMap`

clear, clone, containsKey, containsValue, entrySet, get, isEmpty, keySet, put, putAll, remove, size, values

Methods inherited from class `java.util.AbstractMap`

clear, clone, containsKey, containsValue, entrySet, equals, get, hashCode, isEmpty, keySet, put, putAll, remove, size, toString, values

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.util.Map`

clear, containsKey, containsValue, entrySet, equals, get, hashCode, isEmpty, keySet, put, putAll, remove, size, values

Methods inherited from interface `java.util.Map`

clear, containsKey, containsValue, entrySet, equals, get, hashCode, isEmpty, keySet, put, putAll, remove, size, values

Constructors

WMSProperties

```
public WMSProperties()
```

Methods

putAll

```
public void putAll(java.util.Map m)
```

cloneProperties

```
public static void cloneProperties(WMSProperties from,
        WMSProperties to)
```

Copy all properties from "from" properties object to "to" properties object.

Parameters:

from - source properties

> `to` - destination properties

---

setProperty

```
public void setProperty(String name,
        Object value)
```

Set property to generic object.

Parameters:
`name` - property name
`value` - value

---

getProperty

```
public Object getProperty(String name)
```

Get property value as generic object.

Parameters:
`name` - property name

Returns:
value, null if does not exist

---

getPropertyStr

```
public String getPropertyStr(String name)
```

Get property as String

Parameters:
`name` - property name

Returns:
value as String, null if does not exist

---

getPropertyStr

```
public String getPropertyStr(String name,
        String defaultVal)
```

Get property as String, return default value if does not exist.

Parameters:
`name` - property name
`defaultVal` - default value

Returns:
value as String, defaultVal if does not exist

---

getPropertyBoolean

```
public boolean getPropertyBoolean(String name,
        boolean defaultVal)
```

Get property as boolean, return default value if does not exist.

Parameters:

name - property name
defaultVal - default value

Returns:
value as boolean, defaultVal if does not exist

---

getPropertyInt

```
public int getPropertyInt(String name,
        int defaultVal)
```

Get property as int, return default value if does not exist.

Parameters:
name - property name
defaultVal - default value

Returns:
value as boolean, defaultVal if does not exist

---

getPropertyLong

```
public long getPropertyLong(String name,
        long defaultVal)
```

Get property as long, return default value if does not exist.

Parameters:
name - property name
defaultVal - default value

Returns:
value as long, defaultVal if does not exist

---

getPropertyDouble

```
public double getPropertyDouble(String name,
        double defaultVal)
```

Get property as double, return default value if does not exist.

Parameters:
name - property name
defaultVal - default value

Returns:
value as double, defaultVal if does not exist

---

getAllAsStrings

```
public String[] getAllAsStrings()
```

Return all properties as String[]. Format is "key=value".

Returns:
all properties as String[]

toString

```
public String toString()
```

toString

```
public String toString()
```

Package
com.wowza.wms.authentication

com.wowza.wms.authentication
Class AuthenticateUsernamePasswordProviderBase

```
java.lang.Object
    │
    +-com.wowza.wms.authentication.AuthenticateUsernamePasswordProviderBase
```

All Implemented Interfaces:
> IAuthenticateUsernamePasswordProvider

---

public abstract class **AuthenticateUsernamePasswordProviderBase**
extends Object
implements **IAuthenticateUsernamePasswordProvider**

Base class for implementing HTTP and RTSP based custom authentication class.

Field Summary

protected	[client](#)
protected	[rtpSession](#)
protected	[vhost](#)

Constructor Summary

public	**AuthenticateUsernamePasswordProviderBase**()

Method Summary

[IClient](#)	[getClient](#)() Get client
[RTPSession](#)	[getRTPSession](#)() Get RTP Session
[IVHost](#)	[getVHost](#)() Get vhost
void	[setClient](#)([IClient](#) client) Set client
void	[setRTPSession](#)([RTPSession](#) rtpSession) Set RTP Session
void	[setVHost](#)([IVHost](#) vhost) Set vhost

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Fields

vhost

protected com.wowza.wms.vhost.IVHost **vhost**

client

protected com.wowza.wms.client.IClient **client**

rtpSession

protected com.wowza.wms.rtp.model.RTPSession **rtpSession**

Constructors

AuthenticateUsernamePasswordProviderBase

public **AuthenticateUsernamePasswordProviderBase**()

Methods

getVHost

public IVHost **getVHost**()

Get vhost

Returns:
vhost

setVHost

public void **setVHost**(IVHost vhost)

Set vhost

Parameters:
vhost - vhost

getRTPSession

`public RTPSession getRTPSession()`

Get RTP Session

Returns:
RTP Session

setRTPSession

`public void setRTPSession(RTPSession rtpSession)`

Set RTP Session

Parameters:
`rtpSession` - RTP Session

getClient

`public IClient getClient()`

Get client

Returns:
client

setClient

`public void setClient(IClient client)`

Set client

Parameters:
`client` - client

com.wowza.wms.authentication
Interface IAuthenticate

public interface **IAuthenticate**
extends

IAuthenticate: HTTP and RTSP authentication interface

Field Summary

public static final	PASSWORDFILEFORMAT_CLEAR
	Value: **1**
public static final	PASSWORDFILEFORMAT_UNKNOWN
	Value: **0**

Method Summary

void	init(IApplicationInstance appInstance, AuthenticationItem authenticationItem)
	Initialize authentication class when instantiated as part of an application instance
void	init(IVHost vhost, AuthenticationItem authenticationItem)
	Initialize authentication class when instantiated as part of a vhost

Fields

PASSWORDFILEFORMAT_UNKNOWN

public static final int **PASSWORDFILEFORMAT_UNKNOWN**

Constant value: **0**

PASSWORDFILEFORMAT_CLEAR

public static final int **PASSWORDFILEFORMAT_CLEAR**

Constant value: **1**

Methods

init

public void **init**(IApplicationInstance appInstance,
        AuthenticationItem authenticationItem)

Initialize authentication class when instantiated as part of an application instance

(continued from last page)

Parameters:

appInstance - application instance

authenticationItem - authentication item

init

```
public void init(IVHost vhost,
        AuthenticationItem authenticationItem)
```

Initialize authentication class when instantiated as part of a vhost

Parameters:

vhost - vhost

authenticationItem - authentication item

com.wowza.wms.authentication
Interface IAuthenticateHTTPProvider

public interface **IAuthenticateHTTPProvider**
extends

IAuthenticateHTTPProvider: HTTP authentication provider

Method Summary

boolean	**authenticateHTTPProvider**(IVHost vhost, IHTTPRequest req, IHTTPResponse resp)
	Called for each HTTP authentication

Methods

authenticateHTTPProvider

```
public boolean authenticateHTTPProvider(IVHost vhost,
        IHTTPRequest req,
        IHTTPResponse resp)
```

Called for each HTTP authentication

Parameters:
vhost - virtual host
req - HTTP request
resp - HTTP response

Returns:
true if authentication was successful

com.wowza.wms.authentication
Interface IAuthenticateRTSP

public interface **IAuthenticateRTSP**
extends

IAuthenticateRTSP: RTSP authentication provider

Method Summary

boolean	**authenticateRTSP**(RTPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Called for each RTSP authentication

Methods

authenticateRTSP

public boolean **authenticateRTSP**(RTPSession rtspSession,
        com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)

Called for each RTSP authentication

Parameters:
    `rtspSession` - RTP session
    `req` - RTSP request
    `resp` - RTSP response

Returns:
    true if authentication was successful

com.wowza.wms.authentication
Interface IAuthenticateSIP

public interface **IAuthenticateSIP**
extends

IAuthenticateRTSP: RTSP authentication provider

Method Summary

boolean	**authenticateSIP**(RTPSession rtspSession, com.wowza.wms.sip.SIPRequestMessage req, com.wowza.wms.sip.SIPResponseMessages resp) Called for each RTSP authentication

Methods

authenticateSIP

public boolean **authenticateSIP**(RTPSession rtspSession,
     com.wowza.wms.sip.SIPRequestMessage req,
     com.wowza.wms.sip.SIPResponseMessages resp)

Called for each RTSP authentication

Parameters:
rtspSession - RTP session
req - RTSP request
resp - RTSP response

Returns:
true if authentication was successful

com.wowza.wms.authentication
Interface IAuthenticateUsernamePasswordProvider

All Known Implementing Classes:
> AuthenticateUsernamePasswordProviderBase

---

public interface **IAuthenticateUsernamePasswordProvider**
extends

IAuthenticateUsernamePasswordProvider: HTTP and RTSP username/password validator interface

---

Method Summary

IClient	getClient() Get client
String	getPassword(String username) Get password for a given user
RTPSession	getRTPSession() Get RTP session
IVHost	getVHost() Get vhost
void	setClient(IClient client) Set client
void	setRTPSession(RTPSession rtpSession) Set RTP session
void	setVHost(IVHost vhost) Set vhost
boolean	userExists(String username) Return true if user exists

---

Methods

userExists

public boolean **userExists**(String username)

> Return true if user exists

> #### Parameters:
> > username - username

> #### Returns:
> > true if user exists

---

getPassword

```
public String getPassword(String username)
```

Get password for a given user

Parameters:
username - username

Returns:
password

getVHost

```
public IVHost getVHost()
```

Get vhost

Returns:
vhost

setVHost

```
public void setVHost(IVHost vhost)
```

Set vhost

Parameters:
vhost - vhost

getClient

```
public IClient getClient()
```

Get client

Returns:
client

setClient

```
public void setClient(IClient client)
```

Set client

Parameters:
client - client

getRTPSession

```
public RTPSession getRTPSession()
```

Get RTP session

Returns:
RTP session

setRTPSession

public void **setRTPSession**(RTPSession rtpSession)

> Set RTP session
>
> > Parameters:
> >
> > > rtpSession - RTP session

public void **setRTPSession**(RTPSession rtpSession)

Set RTP session

Package
com.wowza.wms.client

com.wowza.wms.client
Class ConnectionCounter

```
java.lang.Object
    |
    +-com.wowza.wms.client.ConnectionCounterBase
        |
        +-com.wowza.wms.client.ConnectionCounter
```

public class **ConnectionCounter**
extends ConnectionCounterBase

Fields inherited from class com.wowza.wms.client.ConnectionCounterBase
DATEFORMATSTR, NEVERSTR, REJECTREASON_APPLICATION, REJECTREASON_COUNT, REJECTREASON_LICENSE

Constructor Summary

public	[ConnectionCounter](){} () Create empty ConnectionCounter

Method Summary

void	[acceptConnection](ConnectionHolder connectionHolder, byte[] license) Accept a new connection.
void	[addConnectionListener]([IConnectionNotify] connectionNotify) Add a connection listener.
void	[decrement](ConnectionHolder connectionHolder, boolean isValid, java.util.Date date, long stamp, byte[] license) Decrement connection counters.
void	[disconnect](ConnectionHolder connectionHolder, byte[] license) Disconnect connection.
long	[getCurrent]() Get total number of client currently conencted to this object.
long	[getLastConnectAcceptedStamp]() Get time (milliseconds) of the last conenction to this object.
String	[getLastConnectAcceptedStampString]() Get time (milliseconds) of the last conenction to this object as formatted string.
java.util.Date	[getLastConnectAcceptedTime]() Get time (milliseconds) of the last accepeted conenction to this object.
String	[getLastConnectAcceptedTimeString]() Get time (milliseconds) of the last accepeted conenction to this object as formatted string.
long	[getLastConnectRejectedByReasonStamp](int reason) Get time (milliseconds) of the last rejected conenction by reason to this object.

String	**getLastConnectRejectedByReasonStampString**(int reason) Get time (milliseconds) of the last rejected conenction by reason to this object as formatted string.
java.util.Date	**getLastConnectRejectedByReasonTime**(int reason) Get date and time of last rejected connection by reason to this object as Date object.
String	**getLastConnectRejectedByReasonTimeString**(int reason) Get date and time of last rejected connection by reason to this object as formated string.
long	**getLastConnectRejectedStamp**() Get time (milliseconds) of the last rejected conenction to this object.
String	**getLastConnectRejectedStampString**() Get time (milliseconds) of the last rejected conenction to this object as formatted string.
java.util.Date	**getLastConnectRejectedTime**() Get date and time of last rejected connection to this object as Date object.
String	**getLastConnectRejectedTimeString**() Get date and time of last rejected connection to this object as formated string.
long	**getLastDisconnectStamp**() Get time (milliseconds) of the last disconnected conenction to this object.
String	**getLastDisconnectStampString**() Get time (milliseconds) of the last disconnected conenction to this object as formatted string.
java.util.Date	**getLastDisconnectTime**() Get date and time of last disconnected connection to this object as Date object.
String	**getLastDisconnectTimeString**() Get date and time of last disconnected connection to this object as Date object as formatted string.
long	**getTotal**() Get total number of connection attempts to this object.
long	**getTotalAccepted**() Get total number of accepted connections to this object.
long	**getTotalRejected**() Get total number of rejected connections to this object.
void	**incrementAccept**(ConnectionHolder connectionHolder, java.util.Date date, long stamp, byte[] license) Increment accepted connections.
void	**incrementReject**(ConnectionHolder connectionHolder, int reason, java.util.Date date, long stamp, byte[] license) Increment reject connection.
void	**rejectConnection**(ConnectionHolder connectionHolder, int reason, byte[] license) Reject connection.
void	**removeConnectionListener**(IConnectionNotify connectionNotify) Remove connection listener
void	**setConnectionValidator**(IConnectionValidator connectionValidator) Set the connection validator.

boolean	**validateNewConnection**(ConnectionHolder connectionHolder, byte[] license)
	Validate a new connection.

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Constructors

ConnectionCounter

public **ConnectionCounter**()

Create empty ConnectionCounter

Methods

addConnectionListener

public void **addConnectionListener**(IConnectionNotify connectionNotify)

Add a connection listener. Receives following events: onClientConnect, onClientDisconnect, onClientAccept and onClientReject.

Parameters:
connectionNotify - connection listener

removeConnectionListener

public void **removeConnectionListener**(IConnectionNotify connectionNotify)

Remove connection listener

Parameters:
connectionNotify - connection listener

setConnectionValidator

public void **setConnectionValidator**(IConnectionValidator connectionValidator)

Set the connection validator.

Parameters:
connectionValidator - connection validator

validateNewConnection

public boolean **validateNewConnection**(ConnectionHolder connectionHolder, byte[] license)

Validate a new connection.

NOTE: This is a private internal call. Server will not work properly if this method is not called properly using internal security mechanism.

Parameters:

connectionHolder - connection holder

license - security data

Returns:

true if connection is accepted

acceptConfig

public void **acceptConnection**(ConnectionHolder connectionHolder,
        byte[] license)

Accept a new connection.

NOTE: This is a private internal call. Server will not work properly if this method is not called properly using internal security mechanism.

Parameters:

connectionHolder - connection holder

license - security data

incrementAccept

public void **incrementAccept**(ConnectionHolder connectionHolder,
        java.util.Date date,
        long stamp,
        byte[] license)

Increment accepted connections.

NOTE: This is a private internal call. Server will not work properly if this method is not called properly using internal security mechanism.

Parameters:

connectionHolder - connection holder

date - date the connection occured

stamp - time stamp connection occured (milliseconds)

license - security data

rejectConnection

public void **rejectConnection**(ConnectionHolder connectionHolder,
        int reason,
        byte[] license)

Reject connection.

NOTE: This is a private internal call. Server will not work properly if this method is not called properly using internal security mechanism.

Parameters:

connectionHolder - connection holder

reason - reason the connection was refused. See REJECTREASON_*

license - security data

incrementReject

```
public void incrementReject(ConnectionHolder connectionHolder,
        int reason,
        java.util.Date date,
        long stamp,
        byte[] license)
```

Increment reject connection.

NOTE: This is a private internal call. Server will not work properly if this method is not called properly using internal security mechanism.

Parameters:

connectionHolder - connection holder

reason - reason the connection was refused. See REJECTREASON_*

date - date the connection occured

stamp - time stamp connection occured (milliseconds)

license - security data

disconnect

```
public void disconnect(ConnectionHolder connectionHolder,
        byte[] license)
```

Disconnect connection.

NOTE: This is a private internal call. Server will not work properly if this method is not called properly using internal security mechanism.

Parameters:

connectionHolder - connection holder

license - security data

decrement

```
public void decrement(ConnectionHolder connectionHolder,
        boolean isValid,
        java.util.Date date,
        long stamp,
        byte[] license)
```

Decrement connection counters.

NOTE: This is a private internal call. Server will not work properly if this method is not called properly using internal security mechanism.

Parameters:

connectionHolder - connection holder

isValid - is a valid connection

date - date the connection occured

stamp - time stamp connection occured (milliseconds)

license - security data

getCurrent

```
public long getCurrent()
```

Get total number of client currently conencted to this object.

Returns:

total number of client currently conencted to this object

getLastConnectAcceptedStamp

`public long getLastConnectAcceptedStamp()`

Get time (milliseconds) of the last conenction to this object.

Returns:
time (milliseconds) of the last conenction to this object

getLastConnectAcceptedStampString

`public String getLastConnectAcceptedStampString()`

Get time (milliseconds) of the last conenction to this object as formatted string.

Returns:
time (milliseconds) of the last conenction to this object as formatted string

getLastConnectAcceptedTime

`public java.util.Date getLastConnectAcceptedTime()`

Get time (milliseconds) of the last accepeted conenction to this object.

Returns:
time (milliseconds) of the last accepeted conenction to this object

getLastConnectAcceptedTimeString

`public String getLastConnectAcceptedTimeString()`

Get time (milliseconds) of the last accepeted conenction to this object as formatted string.

Returns:
time (milliseconds) of the last accepeted conenction to this object as formatted string

getLastConnectRejectedStamp

`public long getLastConnectRejectedStamp()`

Get time (milliseconds) of the last rejected conenction to this object.

Returns:
time (milliseconds) of the last rejected conenction to this object

getLastConnectRejectedStampString

`public String getLastConnectRejectedStampString()`

Get time (milliseconds) of the last rejected conenction to this object as formatted string.

Returns:
time (milliseconds) of the last rejected conenction to this object as formatted string

getLastConnectRejectedTime

`public java.util.Date getLastConnectRejectedTime()`

Get date and time of last rejected connection to this object as Date object.

Returns:
    date and time of last reject connection to this object as Date object

getLastConnectRejectedTimeString

```
public String getLastConnectRejectedTimeString()
```

Get date and time of last rejected connection to this object as formated string.

Returns:
    date and time of last reject connection to this object as formated string

getLastConnectRejectedByReasonStampString

```
public String getLastConnectRejectedByReasonStampString(int reason)
```

Get time (milliseconds) of the last rejected conenction by reason to this object as formatted string.

Parameters:
    reason - reason, see REJECTREASON_*

Returns:
    time (milliseconds) of the last rejected conenction by reason to this object as formatted string

getLastConnectRejectedByReasonStamp

```
public long getLastConnectRejectedByReasonStamp(int reason)
```

Get time (milliseconds) of the last rejected conenction by reason to this object.

Parameters:
    reason - reason, see REJECTREASON_*

Returns:
    time (milliseconds) of the last rejected conenction by reason to this object

getLastConnectRejectedByReasonTime

```
public java.util.Date getLastConnectRejectedByReasonTime(int reason)
```

Get date and time of last rejected connection by reason to this object as Date object.

Parameters:
    reason - reason, see REJECTREASON_*

Returns:
    date and time of last reject connection by reason to this object as Date object

getLastConnectRejectedByReasonTimeString

```
public String getLastConnectRejectedByReasonTimeString(int reason)
```

Get date and time of last rejected connection by reason to this object as formated string.

Parameters:
    reason - reason, see REJECTREASON_*

Returns:
>   date and time of last rejected connection by reason to this object as formated string

getLastDisconnectStampString

`public String` **`getLastDisconnectStampString`**`()`

>   Get time (milliseconds) of the last disconnected conenction to this object as formatted string.

Returns:
>   time (milliseconds) of the last disconnected conenction to this object as formatted string

getLastDisconnectStamp

`public long` **`getLastDisconnectStamp`**`()`

>   Get time (milliseconds) of the last disconnected conenction to this object.

Returns:
>   time (milliseconds) of the last disconnected conenction to this object

getLastDisconnectTime

`public java.util.Date` **`getLastDisconnectTime`**`()`

>   Get date and time of last disconnected connection to this object as Date object.

Returns:
>   date and time of last disconnected connection to this object as Date object

getLastDisconnectTimeString

`public String` **`getLastDisconnectTimeString`**`()`

>   Get date and time of last disconnected connection to this object as Date object as formatted string.

Returns:
>   date and time of last disconnected connection to this object as Date object as formatted string

getTotal

`public long` **`getTotal`**`()`

>   Get total number of connection attempts to this object.

Returns:
>   total number of connection attempts to this object

getTotalAccepted

`public long` **`getTotalAccepted`**`()`

>   Get total number of accepted connections to this object.

Returns:
>   total number of accepted connections to this object

getTotalRejected

```
public long getTotalRejected()
```

Get total number of rejected connections to this object.

Returns:

total number of rejected connections to this object

getTotalRejected

```
public long getTotalRejected()
```

com.wowza.wms.client
Interface IClient

public interface **IClient**
extends

IClient: public interface to Client object.

Field Summary

public static final	AUDIOSAMPLE_ACCESS_ALL Value: *****
public static final	AUDIOSAMPLE_ACCESS_NONE Value:
public static final	READ_ACCESS_ALL Value: *****
public static final	READ_ACCESS_NONE Value:
public static final	VIDEOSAMPLE_ACCESS_ALL Value: *****
public static final	VIDEOSAMPLE_ACCESS_NONE Value:
public static final	WRITE_ACCESS_ALL Value: *****
public static final	WRITE_ACCESS_NONE Value:

Method Summary

void	acceptConnection() Accept connection
void	acceptConnection(AMFData successObj) Accept connection
void	acceptConnection(String successStr) Accept connection
void	addAcceptConnectionAttribute(String key, AMFDataObj item) Add and attribute to the resultObj that gets passed back to the client on successful connection

void	**addAcceptConnectionAttribute**(String key, String item) Add and attribute to the resultObj that gets passed back to the client on successful connection	
void	**call**(String handlerName) Simplified call client method/handler call.	
void	**call**(String handlerName, **IModuleCallResult** resultObj, Object[] params) Call client method/handler.	
void	**clearFastPlaySettings**() Force clear the fastPlay settings	
void	**fcSubscribe**(String streamName) Subscribe to a live stream (for live stream repeater to start start from edge to origin)	
void	**fcSubscribe**(String streamName, String mediaCasterType) Subscribe to a live stream (use a particular mediaCasterType)	
void	**fcUnSubscribe**(String streamName) UnSubscribe from a stream	
void	**fcUnSubscribeAll**() UnSubscribe to all streams that this client is current subscribed to	
IApplicationInstance	**getAppInstance**() Get parent applicationInstance.	
IApplication	**getApplication**() Get parent application.	
int	**getBufferTime**() Get default buffer time for newly created mediaStream objects	
int	**getClientId**() Get client id.	
long	**getConnectTime**() Get time in milliseconds the client connected to the server.	
String	**getDateStarted**() Get date and time of client connection	
ElapsedTimer	**getElapsedTime**() Get elapsed time client has been connected.	
FastPlaySettings	**getFastPlaySettings**() Get the current fastPlay settings.	
String	**getFlashVer**() Get client flash version (same as FMS getAgent())	
int	**getIdleFrequency**() Get client idle frequency (milliseconds)	
String	**getIp**() Client ip address	
long	**getLastValidateTime**() Get last time (millisecond) the connection was validated with a ping	

int	**getLiveRepeaterCapabilities**() Get the live repeater capabilities of this connection	
String	**getLiveStreamPacketizerList**() Get the comma separated list of LiveStreamPacketizers names being used by this client (see conf/LiveStreamPacketizers.xml)	
String	**getLiveStreamTranscoderList**() Get the comma separated list of LiveStreamTranscoders names being used by this client (see conf/LiveStreamTranscoders.xml)	
int	**getMaximumPendingWriteBytes**() Get maximum number a bytes a client connection can have waiting to be sent before the connection is terminated.	
int	**getMaximumSetBufferTime**() Get maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call.	
IOPerformanceCounter	**getMediaIOPerformanceCounter**() Get performance counter for media bytes transferred to this client.	
int	**getObjectEncoding**() Get the object encoding level	
String	**getPageUrl**() Get the pageUrl for this connection.	
long	**getPingRoundTripTime**() Get turn around time (milliseconds) of last ping request	
int	**getPingTimeout**() Get the ping timeout (milliseconds)	
java.util.List	**getPlayStreams**() Get a collection of all play streams.	
WMSProperties	**getProperties**() Get client properties	
int	**getProtocol**() Get connection protocol (1 = RTMP, 3 = RTMPT)	
java.util.List	**getPublishStreams**() Get a collection of publish streams.	
String	**getQueryStr**() Get the query string part of the connection string.	
String	**getReferrer**() Get the referrer data for this connection.	
String	**getRepeaterOriginUrl**() Get the origin URL used by the Live Stream Repeater	
AMFObj	**getRespAMFAudioObj**(IMediaStream stream) Get the audio response AMFObj for a given mediaStream	
AMFObj	**getRespAMFDataObj**(IMediaStream stream) Get the data response AMFObj for a given mediaStream	

`AMFObj`	`getRespAMFVideoObj(IMediaStream stream)`	
	Get the video response AMFObj for a given mediaStream	
`ResponseFunctions`	`getRespFunctions()`	
	Get client responseFunctions object.	
`AMFObj`	`getResponseAMFObj(int index)`	
	Get the response channel AMFObj for channel index.	
`RTPStream`	`getRTPStream()`	
	If this client was created due to an RTP connection to the server return the underlying RTPStream object	
`HostPort`	`getServerHostPort()`	
	Get the hostPort object for the connection that is servicing this client	
`String`	`getSharedObjectReadAccess()`	
	Get the shared object read access value.	
`String`	`getSharedObjectWriteAccess()`	
	Get the shared object write access value.	
`String`	`getStreamAudioSampleAccess()`	
	Get the audio sample access value.	
`java.io.File`	`getStreamFile(String streamName)`	
	Get File object for stream with given name.	
`java.io.File`	`getStreamFile(String streamName, String streamExt)`	
	Get File object for stream with given name and extension.	
`java.io.File`	`getStreamFile(String streamName, String streamExt, boolean doCreateFolder)`	
	Get File object for stream with given name and extension.	
`String`	`getStreamReadAccess()`	
	Get the stream read access value.	
`String`	`getStreamType()`	
	Get default streamType	
`String`	`getStreamVideoSampleAccess()`	
	Get the video sample access value.	
`String`	`getStreamWriteAccess()`	
	Get the stream write access value.	
`String`	`getTimeRunning()`	
	Get elapsed time of connection	
`double`	`getTimeRunningSeconds()`	
	Get time running in seconds	
`IOPerformanceCounter`	`getTotalIOPerformanceCounter()`	
	Get performance counter for all bytes transferred to this client.	
`String`	`getUri()`	
	Get the full URI of the connection string	

[IVHost](#)	**[getVHost](#)**()
	Get parent vHost
com.wowza.wms.protoco l.wowz.WOWZSession	**[getWowzSession](#)**()
ClientWriteListener	**[getWriteListener](#)**()
	Object that tracks write operations
boolean	**[isAcceptConnection](#)**()
	Is auto accept connection
boolean	**[isConnected](#)**()
	Is this client connected
boolean	**[isEncrypted](#)**()
	Is this connection encrypted (RTMPE or RTMPTE)
boolean	**[isFlashMediaLiveEncoder](#)**()
	Returns true if this connection is the Flash Media Live Encoder
boolean	**[isFlashVersion10](#)**()
	Returns true if the Flash version is equal or greater than 10.x.x.x
boolean	**[isFlashVersion90115](#)**()
	Returns true if the Flash version is equal or greater than 9.0.115.x
boolean	**[isFlashVersionH264Capable](#)**()
	Returns true if the connected client is capable of playing H.264 video (Flash player 9.0.45.x or greater)
boolean	**[isLiveRepeater](#)**()
	Returns true if this connection is from the live stream repeater
boolean	**[isObjectEncodingAMF0](#)**()
	Is the object encoding for this client AMF0
boolean	**[isObjectEncodingAMF3](#)**()
	Is the object encoding for this client AMF3
boolean	**[isSecure](#)**()
	Is this connection protected by either SSL or encryption (RTMPE, RTMPTE, RTMPS)
boolean	**[isSSL](#)**()
	Is this connection SSL (RTMPS)
boolean	**[isValidateFMLEConnections](#)**()
	Returns true if validating FMLE connection (default is false)
int	**[ping](#)**([IModulePingResult](#) pingResult)
	Ping client.
void	**[redirectConnection](#)**(String url)
	Redirection connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected and info.ex.code of 302)
void	**[redirectConnection](#)**(String url, String description)
	Redirection connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected and info.ex.code of 302)

	void	redirectConnection(String url, String description, AMFData errorObj)
		Redirection connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected and info.ex.code of 302).
	void	redirectConnection(String url, String description, String errorStr)
		Redirection connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected and info.ex.code of 302)
	void	rejectConnection()
		Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)
	void	rejectConnection(AMFData errorObj)
		Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)
	void	rejectConnection(String errorStr)
		Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)
	void	rejectConnection(String description, AMFData errorObj)
		Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)
	void	rejectConnection(String description, String errorStr)
		Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)
	void	reparentClient(IVHost vhost)
		Move a client object to a new vhost.
	void	setAcceptConnection(boolean acceptConnection)
		Set the default for accept connection
	void	setAcceptConnectionDescription(String description)
		Call this method from onConnect to set the info.description property returned in NetConnection onStatus handler
	void	setAcceptConnectionExObj(AMFDataObj acceptConnectionExObj)
		Call this method from onConnect to set the info.ex property returned in NetConnection onStatus handler
	void	setAcceptConnectionObj(AMFData acceptConnectionObj)
		Call this method from onConnect to add an "application" property to the info object that is passed back to the Flash client in the onStatus handler.
	void	setBufferTime(int bufferTime)
		Set default buffer time for newly created mediaStream objects
	void	setFastPlaySettings(FastPlaySettings fastPlaySettings)
		Set fastPlay settings
	void	setFlashVer(String flashVer)
		Set client flash version
	void	setIdleFrequency(int idleFrequency)
		Set client idle frequency (milliseconds)
	void	setLastValidateTime(long lastValidateTime)
		Set the last time (milliseconds) the connection was validated with ping

void	**setLiveRepeaterCapabilities**(int liveRepeaterCapabilities) Set the live repeater capabilities of this connection	
void	**setLiveStreamPacketizerList**(String liveStreamPacketizerList) Set the comma separated list of LiveStreamPacketizers names being used by this client (see conf/LiveStreamPacketizers.xml)	
void	**setLiveStreamTranscoderList**(String liveStreamTranscoderList) Set the comma separated list of LiveStreamTranscoders names being used by this client (see conf/LiveStreamTranscoders.xml)	
void	**setObjectEncoding**(int objectEncoding) Set the object encoding level	
void	**setRepeaterOriginUrl**(String repeaterOriginUrl) Set the origin URL used by the Live Stream Repeater	
void	**setSharedObjectReadAccess**(String sharedObjectReadAccess) Set the shared object read access value.	
void	**setSharedObjectWriteAccess**(String sharedObjectWriteAccess) Set the shared object write access value.	
void	**setShutdownClient**(boolean shutdownClient) Gracefully and forecefully shutdown a client.	
void	**setStreamAudioSampleAccess**(String audioSampleAccess) Set the stream audio sample access value.	
void	**setStreamReadAccess**(String streamReadAccess) Set the stream object read access value.	
void	**setStreamType**(String streamType) Set default streamType	
void	**setStreamVideoSampleAccess**(String videoSampleAccess) Set the stream video sample access value.	
void	**setStreamWriteAccess**(String streamWriteAccess) Set the stream object write access value.	
void	**setThreadContext**() Set the thread logging context to this client	
void	**setValidateFMLEConnections**(boolean validateFMLEConnections) Returns true if validating FMLE connection (default is false)	
void	**setWowzSession**(com.wowza.wms.protocol.wowz.WOWZSession wowzSession)	
void	**shutdownClient**() Gracefully shutdown a client.	
int	**testFlashVersion**(int[] version) Test to see if the connected client flash version is equal to or greater than a given value.	
void	**touch**() Update the last touch time for client	

Fields

VIDEOSAMPLE_ACCESS_ALL

public static final java.lang.String **VIDEOSAMPLE_ACCESS_ALL**

Constant value: *****

VIDEOSAMPLE_ACCESS_NONE

public static final java.lang.String **VIDEOSAMPLE_ACCESS_NONE**

Constant value:

AUDIOSAMPLE_ACCESS_ALL

public static final java.lang.String **AUDIOSAMPLE_ACCESS_ALL**

Constant value: *****

AUDIOSAMPLE_ACCESS_NONE

public static final java.lang.String **AUDIOSAMPLE_ACCESS_NONE**

Constant value:

READ_ACCESS_ALL

public static final java.lang.String **READ_ACCESS_ALL**

Constant value: *****

READ_ACCESS_NONE

public static final java.lang.String **READ_ACCESS_NONE**

Constant value:

WRITE_ACCESS_ALL

public static final java.lang.String **WRITE_ACCESS_ALL**

Constant value: *****

WRITE_ACCESS_NONE

public static final java.lang.String **WRITE_ACCESS_NONE**

Constant value:

Methods

getClientId

`public int getClientId()`

Get client id. Assigned by server and connection time.

Returns:
client id

getFlashVer

`public String getFlashVer()`

Get client flash version (same as FMS getAgent())

Returns:
client flash version string

setFlashVer

`public void setFlashVer(String flashVer)`

Set client flash version

Parameters:
`flashVer` - client flash version string

getTotalIOPerformanceCounter

`public IOPerformanceCounter getTotalIOPerformanceCounter()`

Get performance counter for all bytes transferred to this client. This includes function calls.

Returns:
performance counter

getMediaIOPerformanceCounter

`public IOPerformanceCounter getMediaIOPerformanceCounter()`

Get performance counter for media bytes transferred to this client. Only includes bytes to mediaStream objects

Returns:
performance counter

getAppInstance

`public IApplicationInstance getAppInstance()`

Get parent applicationInstance. Is null if connection reject or before accepted.

Returns:
parent applicationInstance

getApplication

public [IApplication](#) **getApplication**()

>   Get parent application. Is null if connection reject or before accepted.

>   **Returns:**
>   application

getPlayStreams

public java.util.List **getPlayStreams**()

>   Get a collection of all play streams. Play streams are streams that are created due to a call to play.

>   ## Iterate Play Streams

```
IClient client;

List playStreams = client.getPlayStreams();
Iterator iter = playStreams.iterator();
while(iter.hasNext())
{
        IMediaStream stream = (IMediaStream)iter.next();
        WMSLoggerFactory.getLogger(null).debug("stream: "+stream.getName());
}
```

>   **Returns:**
>   collection of play streams

getPublishStreams

public java.util.List **getPublishStreams**()

Get a collection of publish streams. Publish streams are streams that are created due to a call to publish.

Iterate Public Streams

```
IClient client;

List publishStreams = client.getPublishStreams();
Iterator iter = publishStreams.iterator();
while(iter.hasNext())
{
        IMediaStream stream = (IMediaStream)iter.next();
        WMSLoggerFactory.getLogger(null).debug("stream: "+stream.getName());
}
```

Returns:
    collection of publish stream

shutdownClient

public void **shutdownClient**()

Gracefully shutdown a client. Only use this method to shutdown a client if you know the client is connected to Wowza Pro. If the client may be disconnected from Wowza Pro, use IClient.setShutdownClient(true)

touch

public void **touch**()

Update the last touch time for client

isConnected

public boolean **isConnected**()

Is this client connected

Returns:
    is connected

getProperties

public WMSProperties **getProperties**()

Get client properties

Returns:
    collection of client properties

getStreamType

`public String` **`getStreamType`**`()`

> Get default streamType

> **Returns:**
> > streamType

setStreamType

`public void` **`setStreamType`**`(String streamType)`

> Set default streamType

> **Parameters:**
> > `streamType` - streamType

isAcceptConnection

`public boolean` **`isAcceptConnection`**`()`

> Is auto accept connection

> **Returns:**
> > auto accept connection

acceptConnection

`public void` **`acceptConnection`**`()`

> Accept connection

acceptConnection

`public void` **`acceptConnection`**`(String successStr)`

> Accept connection

> **Parameters:**
> > `successStr` - application property value added to NetConnection.Connect.Success event object

acceptConnection

`public void` **`acceptConnection`**`(`[AMFData](#)` successObj)`

> Accept connection

> **Parameters:**
> > `successObj` - application property value added to NetConnection.Connect.Success event object

rejectConnection

`public void` **`rejectConnection`**`()`

> Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)

rejectConnection

```
public void rejectConnection(String errorStr)
```

Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)

Parameters:
errorStr - error (returned in onStatus handler in info.application parameter)

rejectConnection

```
public void rejectConnection(AMFData errorObj)
```

Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)

Parameters:
errorObj - error AMFData (returned in onStatus handler in info.application parameter)

rejectConnection

```
public void rejectConnection(String description,
        String errorStr)
```

Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)

Parameters:
description - description (returned in onStatus handler in info.description parameter)
errorStr - error (returned in onStatus handler in info.application parameter)

rejectConnection

```
public void rejectConnection(String description,
        AMFData errorObj)
```

Reject connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected)

Parameters:
description - description (returned in onStatus handler in info.description parameter)
errorObj - error AMFData (returned in onStatus handler in info.application parameter)

redirectConnection

```
public void redirectConnection(String url)
```

Redirection connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected and info.ex.code of 302)

Parameters:
url - url (returned in onStatus handler in info.ex.redirect parameter)

redirectConnection

```
public void redirectConnection(String url,
        String description)
```

Redirection connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected and info.ex.code of 302)

Parameters:

  `url` - url (returned in onStatus handler in info.ex.redirect parameter)
  `description` - description (returned in onStatus handler in info.description parameter)

redirectConnection

```
public void redirectConnection(String url,
        String description,
        String errorStr)
```

Redirection connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected and info.ex.code of 302)

Parameters:
  `url` - url (returned in onStatus handler in info.ex.redirect parameter)
  `description` - description (returned in onStatus handler in info.description parameter)
  `errorStr` - error (returned in onStatus handler in info.application parameter)

redirectConnection

```
public void redirectConnection(String url,
        String description,
        AMFData errorObj)
```

Redirection connection (NetConnection.onStatus handler returns info.code of NetConnection.Connect.Rejected and info.ex.code of 302). Code must be added client side to capture the NetConnection.Connect.Rejected message, look for the info.ex.code value of 302 and attempt a reconnect to the info.ex.redirect url. Client side example:

```
public function ncOnStatus(infoObject:NetStatusEvent)
{
        if (infoObject.info.code == "NetConnection.Connect.Rejected")
        {
                if (infoObject.info.ex.code == 302)
                {
                        trace("Connection redirected: "+infoObject.info.ex.redirect);
                        nc.connect(infoObject.info.ex.redirect);
                }
                else
                        trace("Connection rejected");
        }
}
nc.addEventListener(NetStatusEvent.NET_STATUS, ncOnStatus);
```

Parameters:
  `url` - url (returned in onStatus handler in info.ex.redirect parameter)
  `description` - description (returned in onStatus handler in info.description parameter)
  `errorObj` - error AMFData (returned in onStatus handler in info.application parameter)

getVHost

```
public IVHost getVHost()
```

Get parent vHost

Returns:
      vHost object

call

```
public void call(String handlerName,
        IModuleCallResult resultObj,
        Object[] params)
```

Call client method/handler. You can call any method/handler attached to NetConnection object. Such as netConnection.myFunc

Call Client Handler Method With Result Object

```
IClient client;

class ReturnObj implements IModuleCallResult
{
        public void onResult(IClient client, RequestFunction function,
                AMFDataList params)
        {
                WMSLoggerFactory.getLogger(null).debug("onResult");
        }
}

client.call("onCustomMethod", new ReturnObj(), "param1", 1.2345, false, new Date());
```

Parameters:
      handlerName - handler name
      resultObj - if client method returns data this object will receive callback, null if don't care or no return on client method/handler.
      params - variable list of argument. Will be automatically wrapped in AMFData objects

call

```
public void call(String handlerName)
```

Simplified call client method/handler call. No resultObj. No parameters

Parameters:
      handlerName - handler name

ping

```
public int ping(IModulePingResult pingResult)
```

Ping client. Unlike FMS this ping is asynchronous. pingResult object will be notified of successful response by client or timeout.

Ping Client and Kill Connection If Client Has Died

```
class PingResult implements IModulePingResult
{
        public void onResult(IClient client, long pingTime, int pingId, boolean result)
        {
                WMSLogger log = WMSLoggerFactory.getLogger(null);
                log.debug("onResult: result:"+result);
                if (!result)
                {
                        // client has died lets kill it
                        client.getAppInstance().shutdownClient(client);
                }
                else
                        log.debug("lastPingTime: "+client.getPingRoundTripTime());
        }
}
client.ping(new PingResult());
```

Parameters:
pingResult - ping result object. Will receive callback on result of ping or timeout. Can be null.

Returns:
ping id

getIp

public String **getIp**()

Client ip address

Returns:
client ip address

getFastPlaySettings

public FastPlaySettings **getFastPlaySettings**()

Get the current fastPlay settings. FastPlay settings when set from the client are immediatly cleared on the next call to seek/unpause/play.

Returns:
fastPlay settings

setFastPlaySettings

public void **setFastPlaySettings**(FastPlaySettings fastPlaySettings)

> Set fastPlay settings

> ### Parameters:
> > fastPlaySettings - fastPlay settings

clearFastPlaySettings

public void **clearFastPlaySettings**()

> Force clear the fastPlay settings

getRespFunctions

public ResponseFunctions **getRespFunctions**()

> Get client responseFunctions object. The responseFunctions object is the method by which events are sent to the client. This code snippet shows how to send an onStatus event for a mediaStream (stream) to the client.

> ## Send Status Message to Client

```
ResponseFunctions respFunctions = client.getRespFunctions();

ResponseFunction resp = new ResponseFunction();
resp.createDefaultMessage("onStatus", 0.0);
resp.setRetAMFObj(stream.getRespAMFDataObj());
resp.setSrc(stream.getSrc());

AMFDataObj data = new AMFDataObj();
data.put("level", new AMFDataItem("status"));
data.put("code", new AMFDataItem("NetStream.Publish.Success"));
data.put("description", new AMFDataItem(stream.getName()+" is now unpublished."));
data.put("clientid", new AMFDataItem(clientID));
resp.addBody(data);

respFunctions.add(resp);
```

> ### Returns:
> > responseFunctions object

getConnectTime

public long **getConnectTime**()

Get time in milliseconds the client connected to the server. To get the duration of time in milliseconds that the client has been connected to the server us the following formula: (System.currentTimeMillis() - client.getConnectTime())

Returns:
> duration connected (millseconds)

getPingRoundTripTime

```
public long getPingRoundTripTime()
```

> Get turn around time (milliseconds) of last ping request

> **Returns:**
> > time (milliseconds)

getDateStarted

```
public String getDateStarted()
```

> Get date and time of client connection

> **Returns:**
> > date and time of connection

getTimeRunning

```
public String getTimeRunning()
```

> Get elapsed time of connection

> **Returns:**
> > elapsed time of connection

getTimeRunningSeconds

```
public double getTimeRunningSeconds()
```

> Get time running in seconds

> **Returns:**
> > time running in seconds

getStreamFile

```
public java.io.File getStreamFile(String streamName)
```

> Get File object for stream with given name. Assumes file extension is .flv.

> **Parameters:**
> > streamName - stream name

> **Returns:**
> > file

getStreamFile

```
public java.io.File getStreamFile(String streamName,
        String streamExt)
```

Get File object for stream with given name and extension. For example test.flv would be getStreamFile("test", "flv");

Get File Descriptor

```
IClient client;
File file = client.getStreamFile("test", "flv");
WMSLogger log = WMSLoggerFactory.getLogger(null);
if (file != null)
{
        if (file.exists())
                log.debug("getStreamFile: "+ file.getPath());
}
```

Parameters:
> streamName - stream name
> streamExt - stream extension

Returns:
> file

getStreamFile

```
public java.io.File getStreamFile(String streamName,
        String streamExt,
        boolean doCreateFolder)
```

Get File object for stream with given name and extension. If doCreateFolder is true, create folder necessary to make path exist. For example test.flv would be getStreamFile("test", "flv");

Parameters:
> streamName - stream name
> streamExt - stream extension
> doCreateFolder - create folders if needed

Returns:
> file

getBufferTime

```
public int getBufferTime()
```

Get default buffer time for newly created mediaStream objects

Returns:
> default buffer time (millseconds)

setBufferTime

```
public void setBufferTime(int bufferTime)
```

Set default buffer time for newly created mediaStream objects

Parameters:
bufferTime - bufer time (milliseconds)

getResponseAMFObj

public AMFObj **getResponseAMFObj**(int index)

Get the response channel AMFObj for channel index.

Parameters:
index - channel index

Returns:
AMFObj

getRespAMFAudioObj

public AMFObj **getRespAMFAudioObj**(IMediaStream stream)

Get the audio response AMFObj for a given mediaStream

Parameters:
stream - mediaStream

Returns:
response channel AMFObj

getRespAMFVideoObj

public AMFObj **getRespAMFVideoObj**(IMediaStream stream)

Get the video response AMFObj for a given mediaStream

Parameters:
stream - mediaStream

Returns:
response channel AMFObj

getRespAMFDataObj

public AMFObj **getRespAMFDataObj**(IMediaStream stream)

Get the data response AMFObj for a given mediaStream

Parameters:
stream - mediaStream

Returns:
response channel AMFObj

getQueryStr

public String **getQueryStr**()

Get the query string part of the connection string. If the connection string where:
`rtmp://localhost/app/appInst?data1=myData1&data2=myData2`, then query string would be
`data1=myData1&data2=myData2`

> **Returns:**
> > query string

---

getReferrer

public String **getReferrer**()

> Get the referrer data for this connection. The referrer in Wowza Media Server terms is the full url to the Flash movie that connected to the server. Checking referre upon connection is a great way to secure server connections and only allow your Flash movies to connect to the server.

Only Allow Your .swf Files to Connect to Wowza Pro server

```
public class MyModule extends ModuleBase
{
        static public void onConnect(IClient client, RequestFunction function,
                AMFDataList params)
        {
                String referrer = client.getReferrer();

                if (referrer.indexOf("www.mycompany.com") >= 0 &&
                                referrer.indexOf("mycoolflash.swf") >= 0)
                        client.acceptConnection("valid referrer");
                else
                        client.rejectConnection("invalid referrer: "+referrer);
        }
}
```

> **Returns:**
> > referrer

---

getPageUrl

public String **getPageUrl**()

> Get the pageUrl for this connection.

> **Returns:**
> > pageUrl for this connection

---

getUri

public String **getUri**()

> Get the full URI of the connection string

> **Returns:**
>> URI of connection string

---

getProtocol

`public int getProtocol()`

Get connection protocol (1 = RTMP, 3 = RTMPT)

> **Returns:**
>> connection protocol (1 = RTMP, 3 = RTMPT)

---

getServerHostPort

`public HostPort getServerHostPort()`

Get the hostPort object for the connection that is servicing this client

> **Returns:**
>> vHost hostPort servicing request

---

isSecure

`public boolean isSecure()`

Is this connection protected by either SSL or encryption (RTMPE, RTMPTE, RTMPS)

> **Returns:**
>> is connection protected by either SSL or encryption (RTMPE, RTMPTE, RTMPS)

---

isSSL

`public boolean isSSL()`

Is this connection SSL (RTMPS)

> **Returns:**
>> is connection (RTMPS)

---

isEncrypted

`public boolean isEncrypted()`

Is this connection encrypted (RTMPE or RTMPTE)

> **Returns:**
>> is connection encrypted (RTMPE or RTMPTE)

---

getIdleFrequency

`public int getIdleFrequency()`

Get client idle frequency (milliseconds)

> **Returns:**
>> client idle frequency (milliseconds)

---

setIdleFrequency

`public void setIdleFrequency(int idleFrequency)`

Set client idle frequency (milliseconds)

Parameters:
idleFrequency - client idle frequency (milliseconds)

getSharedObjectReadAccess

`public String getSharedObjectReadAccess()`

Get the shared object read access value. see setSharedObjectReadAccess for more information.

Returns:
shared object read access value

setSharedObjectReadAccess

`public void setSharedObjectReadAccess(String sharedObjectReadAccess)`

Set the shared object read access value. This list is a semi-colon delimited list of shared objects that this client has access to. By default the value is set to IClient.READ_ACCESS_ALL which indicates this client can read all shared objects. If you want to disable read access to all shared objects set this value to IClient.READ_ACCESS_NONE. If this value is set to anything other than IClient.READ_ACCESS_ALL or IClient.READ_ACCESS_NONE then each item in the semi-color delimited list is compared against incoming shared object read requests. If any item in the list completely matches the shared object name or the start of the shared object name, then access is allowed. For example, if the sharedObjectReadAccess list is set to "testa/testb;testc" then the following requests would be granted the following access:

- testc: Granted Access
- testc/test: Granted Access
- testC/test: Denied Access (incorrect case)
- testa/testb: Granted Access
- testa/testb123: Granted Access
- testa/testb/file123: Granted Access
- testa/test: Denied Access (incomplete match)

Values in this list are always case sensitive.

Parameters:
sharedObjectReadAccess - shared object read access value

getSharedObjectWriteAccess

`public String getSharedObjectWriteAccess()`

Get the shared object write access value. see setSharedObjectWriteAccess for more information.

Returns:
shared object write access value

setSharedObjectWriteAccess

`public void setSharedObjectWriteAccess(String sharedObjectWriteAccess)`

Set the shared object write access value. This list is a semi-colon delimeted list of shared objects that this client has access to. By default the value is set to IClient.WRITE_ACCESS_ALL which indicates this client can write all shared objects. If you want to disable write access to all shared objects set this value to IClient.WRITE_ACCESS_NONE. If this value is set to anything other than IClient.WRITE_ACCESS_ALL or IClient.WRITE_ACCESS_NONE then each item in the semi-color delimited list is compared against incoming shared object write requests. If any item in the list completely matches the shared object name or the start of the shared object name, then access is allowed. For example, if the sharedObjectWriteAccess list is set to "testa/testb;testc" then the following requests would be granted the following access:

- testc: Granted Access
- testc/test: Granted Access
- testC/test: Denied Access (incorrect case)
- testa/testb: Granted Access
- testa/testb123: Granted Access
- testa/testb/file123: Granted Access
- testa/test: Denied Access (incomplete match)

Values in this list are always case sensitive.

Parameters:
> `sharedObjectWriteAccess`

---

getStreamVideoSampleAccess

`public String getStreamVideoSampleAccess()`

Get the video sample access value. see setVideoStreamAccess for more information.

Returns:
> video sample access

---

setStreamVideoSampleAccess

`public void setStreamVideoSampleAccess(String videoSampleAccess)`

Set the stream video sample access value. This list is a semi-colon delimeted list of stream names that this client has access to. By default the value is set to IClient.VIDEOSTREAM_ACCESS_NONE which indicates this client can access no stream data client side. If you want to enable access to all stream names set this value to IClient.VIDEOSTREAM_ACCESS_ALL. If this value is set to anything other than IClient.VIDEOSTREAM_ACCESS_ALL or IClient.VIDEOSTREAM_ACCESS_NONE then each item in the semi-color delimited list is compared against incoming stream play requests. If any item in the list completely matches the stream name or the start of the stream name, then access is allowed. For example, if the streamVideoSampleAccess list is set to "testa/testb;testc" then the following play requests would be granted the following access:

- testc: Granted Access
- testc/test: Granted Access
- testC/test: Denied Access (incorrect case)
- testa/testb: Granted Access
- testa/testb123: Granted Access
- testa/testb/file123: Granted Access
- testa/test: Denied Access (incomplete match)

Values in this list are always case sensitive.

Parameters:
> `videoSampleAccess`

---

getStreamAudioSampleAccess

`public String getStreamAudioSampleAccess()`

Get the audio sample access value. see setVideoStreamAccess for more information.

Returns:

audio sample access

setStreamAudioSampleAccess

public void **setStreamAudioSampleAccess**(String audioSampleAccess)

Set the stream audio sample access value. This list is a semi-colon delimited list of stream names that this client has access to. By default the value is set to IClient.AUDIOSTREAM_ACCESS_NONE which indicates this client can access no stream data client side. If you want to enable access to all stream names set this value to IClient.AUDIOSTREAM_ACCESS_ALL. If this value is set to anything other than IClient.AUDIOSTREAM_ACCESS_ALL or IClient.AUDIOSTREAM_ACCESS_NONE then each item in the semi-color delimited list is compared against incoming stream play requests. If any item in the list completely matches the stream name or the start of the stream name, then access is allowed. For example, if the streamAudioSampleAccess list is set to "testa/testb;testc" then the following play requests would be granted the following access:

- testc: Granted Access
- testc/test: Granted Access
- testC/test: Denied Access (incorrect case)
- testa/testb: Granted Access
- testa/testb123: Granted Access
- testa/testb/file123: Granted Access
- testa/test: Denied Access (incomplete match)

Values in this list are always case sensitive.

Parameters:
audioSampleAccess

getStreamReadAccess

public String **getStreamReadAccess**()

Get the stream read access value. see setStreamReadAccess for more information.

Returns:
stream read access value

setStreamReadAccess

public void **setStreamReadAccess**(String streamReadAccess)

Set the stream object read access value. This list is a semi-colon delimited list of stream names that this client has access to. By default the value is set to IClient.READ_ACCESS_ALL which indicates this client can play all streams. If you want to disable read access to all stream names set this value to IClient.READ_ACCESS_NONE. If this value is set to anything other than IClient.READ_ACCESS_ALL or IClient.READ_ACCESS_NONE then each item in the semi-color delimited list is compared against incoming stream play requests. If any item in the list completely matches the stream name or the start of the stream name, then access is allowed. For example, if the streamReadAccess list is set to "testa/testb;testc" then the following play requests would be granted the following access:

- testc: Granted Access
- testc/test: Granted Access
- testC/test: Denied Access (incorrect case)
- testa/testb: Granted Access
- testa/testb123: Granted Access
- testa/testb/file123: Granted Access
- testa/test: Denied Access (incomplete match)

Values in this list are always case sensitive.

Parameters:
streamReadAccess - shared object read access value

getStreamWriteAccess

```
public String getStreamWriteAccess()
```

Get the stream write access value. see setStreamWriteAccess for more information.

Returns:
stream write access value

setStreamWriteAccess

```
public void setStreamWriteAccess(String streamWriteAccess)
```

Set the stream object write access value. This list is a semi-colon delimeted list of stream names that this client has access to. By default the value is set to IClient.WRITE_ACCESS_ALL which indicates this client can play all streams. If you want to disable write access to all stream names set this value to IClient.WRITE_ACCESS_NONE. If this value is set to anything other than IClient.WRITE_ACCESS_ALL or IClient.WRITE_ACCESS_NONE then each item in the semi-color delimited list is compared against incoming stream play requests. If any item in the list completely matches the stream name or the start of the stream name, then access is allowed. For example, if the streamWriteAccess list is set to "testa/testb;testc" then the following play requests would be granted the following access:

- testc: Granted Access
- testc/test: Granted Access
- testC/test: Denied Access (incorrect case)
- testa/testb: Granted Access
- testa/testb123: Granted Access
- testa/testb/file123: Granted Access
- testa/test: Denied Access (incomplete match)

Values in this list are always case sensitive.

Parameters:
streamWriteAccess - shared object read access value

getWriteListener

```
public ClientWriteListener getWriteListener()
```

Object that tracks write operations

Returns:
Object that tracks write operations

addAcceptConnectionAttribute

```
public void addAcceptConnectionAttribute(String key,
        AMFDataObj item)
```

Add and attribute to the resultObj that gets passed back to the client on successful connection

Parameters:
key - key
item - item to add

addAcceptConnectionAttribute

```
public void addAcceptConnectionAttribute(String key,
        String item)
```

Add and attribute to the resultObj that gets passed back to the client on successful connection

Parameters:
key - key
item - item to add

getRepeaterOriginUrl

public String **getRepeaterOriginUrl**()

Get the origin URL used by the Live Stream Repeater

Returns:
URL used by the Live Stream Repeater

setRepeaterOriginUrl

public void **setRepeaterOriginUrl**(String repeaterOriginUrl)

Set the origin URL used by the Live Stream Repeater

Parameters:
repeaterOriginUrl - URL used by the Live Stream Repeater

getLastValidateTime

public long **getLastValidateTime**()

Get last time (millisecond) the connection was validated with a ping

Returns:
last time (millisecond) the connection was validated with a ping

setLastValidateTime

public void **setLastValidateTime**(long lastValidateTime)

Set the last time (milliseconds) the connection was validated with ping

Parameters:
lastValidateTime - last time (milliseconds) the connection was validated with ping

getPingTimeout

public int **getPingTimeout**()

Get the ping timeout (milliseconds)

Returns:
ping timeout (milliseconds)

isLiveRepeater

public boolean **isLiveRepeater**()

Returns true if this connection is from the live stream repeater

Returns:
true if this connection is from the live stream repeater

isFlashVersionH264Capable

`public boolean` **`isFlashVersionH264Capable`**`()`

Returns true if the connected client is capable of playing H.264 video (Flash player 9.0.45.x or greater)

Returns:

returns true if the connected client is capable of playing H.264 video (Flash player 9.0.45.x or greater)

isFlashVersion90115

`public boolean` **`isFlashVersion90115`**`()`

Returns true if the Flash version is equal or greater than 9.0.115.x

Returns:

returns true if the Flash version is equal or greater than 9.0.115.x

isFlashVersion10

`public boolean` **`isFlashVersion10`**`()`

Returns true if the Flash version is equal or greater than 10.x.x.x

Returns:

returns true if the Flash version is equal or greater than 10.x.x.x

isFlashMediaLiveEncoder

`public boolean` **`isFlashMediaLiveEncoder`**`()`

Returns true if this connection is the Flash Media Live Encoder

Returns:

true if this connection is the Flash Media Live Encoder

testFlashVersion

`public int` **`testFlashVersion`**`(int[] version)`

Test to see if the connected client flash version is equal to or greater than a given value. Example: int isGood = testFlashVersion({ 9, 0, 5, 12});

Parameters:

`version` - array of version values

Returns:

1 if greater, 0 if equal, -1 if less then

isObjectEncodingAMF3

`public boolean` **`isObjectEncodingAMF3`**`()`

Is the object encoding for this client AMF3

Returns:

true of the object encoding for this client is AMF3

isObjectEncodingAMF0

public boolean **isObjectEncodingAMF0**()

Is the object encoding for this client AMF0

Returns:
true of the object encoding for this client is AMF0

setObjectEncoding

public void **setObjectEncoding**(int objectEncoding)

Set the object encoding level

Parameters:
objectEncoding - object encoding level

getObjectEncoding

public int **getObjectEncoding**()

Get the object encoding level

Returns:
object encoding level

setAcceptConnectionObj

public void **setAcceptConnectionObj**(AMFData acceptConnectionObj)

Call this method from onConnect to add an "application" property to the info object that is passed back to the Flash client in the onStatus handler.

Parameters:
acceptConnectionObj - connection object

setAcceptConnectionDescription

public void **setAcceptConnectionDescription**(String description)

Call this method from onConnect to set the info.description property returned in NetConnection onStatus handler

Parameters:
description - description

setAcceptConnectionExObj

public void **setAcceptConnectionExObj**(AMFDataObj acceptConnectionExObj)

Call this method from onConnect to set the info.ex property returned in NetConnection onStatus handler

Parameters:
acceptConnectionExObj - exObj AMFData item return in info.ex propert of NetConnection onStatus handler

getRTPStream

public RTPStream **getRTPStream**()

If this client was created due to an RTP connection to the server return the underlying RTPStream object

Returns:
underlying RTPStream object

setAcceptConnection

public void **setAcceptConnection**(boolean acceptConnection)

Set the default for accept connection

Parameters:
acceptConnection - default for accept connection

setShutdownClient

public void **setShutdownClient**(boolean shutdownClient)

Gracefully and forecefully shutdown a client.

Parameters:
shutdownClient - set to true to gracefully and forecefully shutdown a client

reparentClient

public void **reparentClient**(IVHost vhost)

Move a client object to a new vhost. This can only be done right after the handshake process has completed. See IVHostNotify.onVHostClientConnect.

Parameters:
vhost - new vhost

getMaximumSetBufferTime

public int **getMaximumSetBufferTime**()

Get maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call. If set to zero this feature is turned off.

Returns:
maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call

getMaximumPendingWriteBytes

public int **getMaximumPendingWriteBytes**()

Get maximum number a bytes a client connection can have waiting to be sent before the connection is terminated. If set to zero this feature is turned off.

Returns:
maximum number a bytes a client connection can have waiting to be sent before the connection is terminated

getLiveStreamPacketizerList

`public String` **`getLiveStreamPacketizerList`**`()`

Get the comma separated list of LiveStreamPacketizers names being used by this client (see conf/LiveStreamPacketizers.xml)

Returns:
comma separated list of LiveStreamPacketizers names

setLiveStreamPacketizerList

`public void` **`setLiveStreamPacketizerList`**`(String liveStreamPacketizerList)`

Set the comma separated list of LiveStreamPacketizers names being used by this client (see conf/LiveStreamPacketizers.xml)

Parameters:
`liveStreamPacketizerList` - comma separated list of LiveStreamPacketizers names

getLiveStreamTranscoderList

`public String` **`getLiveStreamTranscoderList`**`()`

Get the comma separated list of LiveStreamTranscoders names being used by this client (see conf/LiveStreamTranscoders.xml)

Returns:
comma separated list of LiveStreamTranscoders names

setLiveStreamTranscoderList

`public void` **`setLiveStreamTranscoderList`**`(String liveStreamTranscoderList)`

Set the comma separated list of LiveStreamTranscoders names being used by this client (see conf/LiveStreamTranscoders.xml)

Parameters:
`liveStreamTranscoderList` - comma separated list of LiveStreamTranscoders names

getElapsedTime

`public` [ElapsedTimer] **`getElapsedTime`**`()`

Get elapsed time client has been connected.

Returns:
elapsed time client has been connected.

getLiveRepeaterCapabilities

`public int` **`getLiveRepeaterCapabilities`**`()`

Get the live repeater capabilities of this connection

Returns:
live repeater capabilities of this connection

setLiveRepeaterCapabilities

`public void` **`setLiveRepeaterCapabilities`**`(int liveRepeaterCapabilities)`

Set the live repeater capabilities of this connection

Parameters:
liveRepeaterCapabilities - live repeater capabilities of this connection

fcSubscribe

public void **fcSubscribe**(String streamName)

Subscribe to a live stream (for live stream repeater to start start from edge to origin)

Parameters:
streamName - stream name

fcSubscribe

public void **fcSubscribe**(String streamName,
        String mediaCasterType)

Subscribe to a live stream (use a particular mediaCasterType)

Parameters:
streamName - stream name
mediaCasterType - media caster type name

fcUnSubscribeAll

public void **fcUnSubscribeAll**()

UnSubscribe to all streams that this client is current subscribed to

fcUnSubscribe

public void **fcUnSubscribe**(String streamName)

UnSubscribe from a stream

Parameters:
streamName - stream name

isValidateFMLEConnections

public boolean **isValidateFMLEConnections**()

Returns true if validating FMLE connection (default is false)

Returns:
true if validating FMLE connection

setValidateFMLEConnections

public void **setValidateFMLEConnections**(boolean validateFMLEConnections)

Returns true if validating FMLE connection (default is false)

Parameters:
validateFMLEConnections - true if validating FMLE connection

setThreadContext

```
public void setThreadContext()
```

> Set the thread logging context to this client

getWowzSession

```
public com.wowza.wms.protocol.wowz.WOWZSession getWowzSession()
```

setWowzSession

```
public void setWowzSession(com.wowza.wms.protocol.wowz.WOWZSession wowzSession)
```

setThreadContext

```
public void setThreadContext()
```

> Set the thread logging context to this client

com.wowza.wms.client
Interface IClientNotify

public interface **IClientNotify**
extends

IClientNotify: listener interface used by `IApplicationInstance.addClientListener(IClientNotify)`
See Also:
> `IApplicationInstance.addClientListener(IClientNotify)`

Method Summary

void	`onClientAccept(`IClient` client)` Triggered when client connection accepted
void	`onClientConnect(`IClient` client)` Triggered when client attempt connection
void	`onClientDisconnect(`IClient` client)` Triggered when client disconnected
void	`onClientReject(`IClient` client)` Triggered when client connection rejected

Methods

onClientConnect

public void **onClientConnect**(`IClient` client)

> Triggered when client attempt connection

> **Parameters:**
> > `client` - client

onClientDisconnect

public void **onClientDisconnect**(`IClient` client)

> Triggered when client disconnected

> **Parameters:**
> > `client` - client

onClientAccept

public void **onClientAccept**(`IClient` client)

> Triggered when client connection accepted

> **Parameters:**
> > `client` - client

onClientReject

public void **onClientReject**(<u>IClient</u> client)

   Triggered when client connection rejected

    Parameters:
       client - client

onClientReject

public void **onClientReject**(<u>IClient</u> client)

com.wowza.wms.client
Interface IConnectionNotify

public interface **IConnectionNotify**
extends

IConnectionNotify: internal class to manage connection counting

Method Summary

void	**onAcceptConnection**(ConnectionCounter connectionCounter, ConnectionHolder connectionHolder, java.util.Date date, long stamp) Triggered when client connection accepted
void	**onDisconnect**(ConnectionCounter connectionCounter, ConnectionHolder connectionHolder, boolean isValid, java.util.Date date, long stamp) Triggered when client disconnected
void	**onRejectConnection**(ConnectionCounter connectionCounter, ConnectionHolder connectionHolder, int reason, java.util.Date date, long stamp) Triggered when client connection rejected

Methods

onAcceptConnection

```
public void onAcceptConnection(ConnectionCounter connectionCounter,
        ConnectionHolder connectionHolder,
        java.util.Date date,
        long stamp)
```

Triggered when client connection accepted

Parameters:
    connectionCounter
    connectionHolder
    date
    stamp

onRejectConnection

```
public void onRejectConnection(ConnectionCounter connectionCounter,
        ConnectionHolder connectionHolder,
        int reason,
        java.util.Date date,
        long stamp)
```

Triggered when client connection rejected

Parameters:
    connectionCounter
    connectionHolder
    reason

        date
        stamp

onDisconnect

```
public void onDisconnect(ConnectionCounter connectionCounter,
        ConnectionHolder connectionHolder,
        boolean isValid,
        java.util.Date date,
        long stamp)
```

Triggered when client disconnected

Parameters:

        connectionCounter
        connectionHolder
        isValid
        date
        stamp

Package
com.wowza.wms.dvr

com.wowza.wms.dvr
Class DefaultDvrStreamVersionHandler

```
java.lang.Object
    |
    +-com.wowza.wms.dvr.DefaultDvrStreamVersionHandler
```

All Implemented Interfaces:
>   IDvrStreamVersionHandler

---

public class **DefaultDvrStreamVersionHandler**
extends Object
implements **IDvrStreamVersionHandler**

Default stream Version Handler. May be sub-classed

Constructor Summary

public	**DefaultDvrStreamVersionHandler**()

Method Summary

IDvrStreamStore	**determineExistingStoreForPlaying**(IDvrStreamManager dvrMgr, String baseStreamName)
IDvrStreamStore	**determineExistingStoreForRecording**(IDvrStreamManager dvrMgr, String baseStreamName)
String	**getArchiveStrategy**(IDvrStreamManager dvrMgr, String baseStreamName)
boolean	**handleArchivedStream**(IDvrStreamManager dvrMgr, String baseStreamName, String vStreamName, java.util.SortedSet versions, DvrManifestHolder manifestHolder)
boolean	**shouldDeleteArchivedStream**(IDvrStreamManager dvrMgr, IDvrStreamStore store)
boolean	**shouldLoadArchivedStream**(IDvrStreamManager dvrMgr, String baseStreamName, String vStreamName, java.util.SortedSet versions, DvrManifestHolder manifest)

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `com.wowza.wms.dvr.IDvrStreamVersionHandler`

determineExistingStoreForPlaying, determineExistingStoreForRecording, getArchiveStrategy, handleArchivedStream, shouldDeleteArchivedStream, shouldLoadArchivedStream

---

Constructors

DefaultDvrStreamVersionHandler

```
public DefaultDvrStreamVersionHandler()
```

Methods

getArchiveStrategy

```
public String getArchiveStrategy(IDvrStreamManager dvrMgr,
        String baseStreamName)
```

determineExistingStoreForRecording

```
public IDvrStreamStore determineExistingStoreForRecording(IDvrStreamManager dvrMgr,
        String baseStreamName)
```

determineExistingStoreForPlaying

```
public IDvrStreamStore determineExistingStoreForPlaying(IDvrStreamManager dvrMgr,
        String baseStreamName)
```

handleArchivedStream

```
public boolean handleArchivedStream(IDvrStreamManager dvrMgr,
        String baseStreamName,
        String vStreamName,
        java.util.SortedSet versions,
        DvrManifestHolder manifestHolder)
```

shouldLoadArchivedStream

```
public boolean shouldLoadArchivedStream(IDvrStreamManager dvrMgr,
        String baseStreamName,
        String vStreamName,
        java.util.SortedSet versions,
        DvrManifestHolder manifest)
```

shouldDeleteArchivedStream

```
public boolean shouldDeleteArchivedStream(IDvrStreamManager dvrMgr,
        IDvrStreamStore store)
```

com.wowza.wms.dvr
Class DvrManifestChunkEntry

```
java.lang.Object
    │
    +-com.wowza.wms.dvr.DvrManifestEntry
        │
        +-com.wowza.wms.dvr.DvrManifestChunkEntry
```
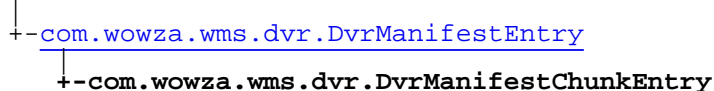
public class **DvrManifestChunkEntry**
extends [DvrManifestEntry](#)

Entry in DVR manifest that contains an associated chunk.

Field Summary

protected	[artifact](#)
protected	[encryptions](#)

Fields inherited from class [com.wowza.wms.dvr.DvrManifestEntry](#)
[dvrStart](#), [dvrStop](#), [index](#), [MANIFESTFILE_KEY_ARTIFACT](#), [MANIFESTFILE_KEY_AUDIO_CODEC](#), [MANIFESTFILE_KEY_CHUNKINDEX](#), [MANIFESTFILE_KEY_DVRTIME](#), [MANIFESTFILE_KEY_ENCRYPTIONS](#), [MANIFESTFILE_KEY_INDEX](#), [MANIFESTFILE_KEY_METADATA](#), [MANIFESTFILE_KEY_NAME](#), [MANIFESTFILE_KEY_PACKETTIME](#), [MANIFESTFILE_KEY_SIZE](#), [MANIFESTFILE_KEY_START](#), [MANIFESTFILE_KEY_STOP](#), [MANIFESTFILE_KEY_TYPE](#), [MANIFESTFILE_KEY_UTCTIME](#), [MANIFESTFILE_KEY_VIDEO_CODEC](#), [packetTime](#), [SERIALIZE_CURRENT_VERSION](#), [type](#), [utcTime](#)

Constructor Summary

public	[DvrManifestChunkEntry](#)(int type, int index, long dvrStart, long dvrStop, long packetTime, long utcTime, DvrChunkArtifact artifact) Constructor
public	[DvrManifestChunkEntry](#)(int type, int index, long dvrStart, long dvrStop, long packetTime, long utcTime, DvrChunkArtifact artifact, DvrEncryptionInfoHolder encryptions) Constructor

Method Summary

String	[getArtifactsTextRepresentation](#)()
DvrChunkArtifact	[getDvrArtifact](#)() Get DVR artifact reference.
DvrEncryptionInfoHolder	[getEncryptions](#)() Get associated encryptions.
String	[getEncryptionsTextRepresentation](#)()
String	[getManifestRepresentation](#)()

void	serialize(java.io.DataOutputStream out)	
void	setEncryptions(DvrEncryptionInfoHolder encryptions) 　　　Set associated encryptions.	
String	toString()	

Methods inherited from class com.wowza.wms.dvr.DvrManifestEntry

encodeBytes, getCommonInitialTextRepString, getDuration, getIndex, getManifestRepresentation, getPacketStartTime, getStartTimecode, getStopTimecode, getType, getUtcStartTime, serialize, serialize

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

artifact

protected com.wowza.wms.dvr.DvrChunkArtifact **artifact**

encryptions

protected com.wowza.wms.dvr.DvrEncryptionInfoHolder **encryptions**

Constructors

DvrManifestChunkEntry

```
public DvrManifestChunkEntry(int type,
                             int index,
                             long dvrStart,
                             long dvrStop,
                             long packetTime,
                             long utcTime,
                             DvrChunkArtifact artifact)
```

Constructor

Parameters:

type - type

index - manifest index

dvrStart - start time (ms in DVR time scale)

dvrStop - stop time (ms in DVR time scale)

utcTime

packetTime

artifact - reference to the chunk artifact

DvrManifestChunkEntry

```
public DvrManifestChunkEntry(int type,
                             int index,
                             long dvrStart,
                             long dvrStop,
                             long packetTime,
                             long utcTime,
                             DvrChunkArtifact artifact,
                             DvrEncryptionInfoHolder encryptions)
```

Constructor

Parameters:
type - type
index - manifest index
dvrStart - start time (ms in DVR time scale)
dvrStop - stop time (ms in DVR time scale)
utcTime
packetTime
artifact - reference to the chunk artifact
encryptions - associated encryptions

Methods

getDvrArtifact

```
public DvrChunkArtifact getDvrArtifact()
```

Get DVR artifact reference.

Returns:
DVR artifact reference.

setEncryptions

```
public void setEncryptions(DvrEncryptionInfoHolder encryptions)
```

Set associated encryptions.

Parameters:
encryptions - encryptions

getEncryptions

```
public DvrEncryptionInfoHolder getEncryptions()
```

Get associated encryptions.

Returns:
encryptions

serialize

```
public void serialize(java.io.DataOutputStream out)
```

Serialize manifest record.

getManifestRepresentation

`public String` **`getManifestRepresentation()`**

Get textual representation of record for textual manifest usage.

getEncryptionsTextRepresentation

`protected String` **`getEncryptionsTextRepresentation()`**

getArtifactsTextRepresentation

`protected String` **`getArtifactsTextRepresentation()`**

toString

`public String` **`toString()`**

com.wowza.wms.dvr
Class DvrManifestCodecEntry

```
java.lang.Object
    |
    +-com.wowza.wms.dvr.DvrManifestEntry
        |
        +-com.wowza.wms.dvr.DvrManifestCodecEntry
```

---
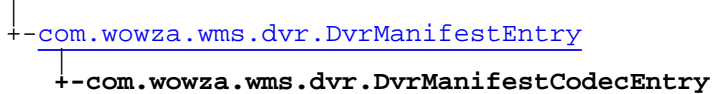
public class **DvrManifestCodecEntry**
extends DvrManifestEntry

Entry in DVR manifest that contains codec information

Fields inherited from class com.wowza.wms.dvr.DvrManifestEntry
dvrStart, dvrStop, index, MANIFESTFILE_KEY_ARTIFACT, MANIFESTFILE_KEY_AUDIO_CODEC, MANIFESTFILE_KEY_CHUNKINDEX, MANIFESTFILE_KEY_DVRTIME, MANIFESTFILE_KEY_ENCRYPTIONS, MANIFESTFILE_KEY_INDEX, MANIFESTFILE_KEY_METADATA, MANIFESTFILE_KEY_NAME, MANIFESTFILE_KEY_PACKETTIME, MANIFESTFILE_KEY_SIZE, MANIFESTFILE_KEY_START, MANIFESTFILE_KEY_STOP, MANIFESTFILE_KEY_TYPE, MANIFESTFILE_KEY_UTCTIME, MANIFESTFILE_KEY_VIDEO_CODEC, packetTime, SERIALIZE_CURRENT_VERSION, type, utcTime

Constructor Summary

public	**DvrManifestCodecEntry**(int index, long dvrStart, long packetTime, long utcTime, com.wowza.wms.media.model.MediaCodecInfoAudio audioCodec, com.wowza.wms.media.model.MediaCodecInfoVideo videoCodec) Constructor

Method Summary

com.wowza.wms.media.model.MediaCodecInfoAudio	**getAudioCodec**() Get audio codec information
String	**getManifestRepresentation**()
com.wowza.wms.media.model.MediaCodecInfoVideo	**getVideoCodec**() Get video codec information
void	**serialize**(java.io.DataOutputStream out)
String	**toString**()

Methods inherited from class com.wowza.wms.dvr.DvrManifestEntry
encodeBytes, getCommonInitialTextRepString, getDuration, getIndex, getManifestRepresentation, getPacketStartTime, getStartTimecode, getStopTimecode, getType, getUtcStartTime, serialize, serialize

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

DvrManifestCodecEntry

```
public DvrManifestCodecEntry(int index,
                             long dvrStart,
                             long packetTime,
                             long utcTime,
                             com.wowza.wms.media.model.MediaCodecInfoAudio audioCodec,
                             com.wowza.wms.media.model.MediaCodecInfoVideo videoCodec)
```

Constructor

Parameters:
index - manifest index
dvrStart - start time (ms in DVR time scale)
audioCodec - audio codec info
videoCodec - video codec info

Methods

getVideoCodec

```
public com.wowza.wms.media.model.MediaCodecInfoVideo getVideoCodec()
```

Get video codec information

Returns:
video codec information

getAudioCodec

```
public com.wowza.wms.media.model.MediaCodecInfoAudio getAudioCodec()
```

Get audio codec information

Returns:
audio codec information

serialize

```
public void serialize(java.io.DataOutputStream out)
```

Serialize manifest record.

getManifestRepresentation

```
public String getManifestRepresentation()
```

Get textual representation of record for textual manifest usage.

toString

```
public String toString()
```

toString

```
public String toString()
```

com.wowza.wms.dvr
Class DvrManifestEntry

```
java.lang.Object
    │
    +-com.wowza.wms.dvr.DvrManifestEntry
```

Direct Known Subclasses:
　　　　DvrManifestTimeMapEntry, DvrManifestOnMetadataEntry, DvrManifestCodecEntry, DvrManifestChunkEntry

---

public abstract class **DvrManifestEntry**
extends Object

Abstract class representing entry in DVR manifest.

Field Summary

protected	dvrStart
protected	dvrStop
protected	index
public static final	MANIFESTFILE_KEY_ARTIFACT Value: **artifact**
public static final	MANIFESTFILE_KEY_AUDIO_CODEC Value: **aCodec**
public static final	MANIFESTFILE_KEY_CHUNKINDEX Value: **chunkIndex**
public static final	MANIFESTFILE_KEY_DVRTIME Value: **dvrTime**
public static final	MANIFESTFILE_KEY_ENCRYPTIONS Value: **enc**
public static final	MANIFESTFILE_KEY_INDEX Value: **index**
public static final	MANIFESTFILE_KEY_METADATA Value: **metadata**
public static final	MANIFESTFILE_KEY_NAME Value: **name**

public static final	MANIFESTFILE_KEY_PACKETTIME	
	Value: **packetTime**	
public static final	MANIFESTFILE_KEY_SIZE	
	Value: **size**	
public static final	MANIFESTFILE_KEY_START	
	Value: **start**	
public static final	MANIFESTFILE_KEY_STOP	
	Value: **stop**	
public static final	MANIFESTFILE_KEY_TYPE	
	Value: **type**	
public static final	MANIFESTFILE_KEY_UTCTIME	
	Value: **utcTime**	
public static final	MANIFESTFILE_KEY_VIDEO_CODEC	
	Value: **vCodec**	
protected	packetTime	
protected static final	SERIALIZE_CURRENT_VERSION	
	Value: **2**	
protected	type	
protected	utcTime	

Constructor Summary

public	**DvrManifestEntry**(int type, int index, long dvrStart, long dvrStop, long packetTime, long utcTime) Constructor Valid types include: IVHost.CONTENTTYPE_AUDIO, IVHost.CONTENTTYPE_VIDEO, IVHost.CONTENTTYPE_DATA, IDvrManifest.ON_METADATA_TYPE, IDvrManifest.CODEC_TYPE, or IDvrManifest.TIME_MAP_TYPE

Method Summary

String	encodeBytes(byte[] bytes) Encode string of bytes as Base64.
String	getCommonInitialTextRepString()
long	getDuration() Get duration
int	getIndex() Get manifest index.

abstract String	[getManifestRepresentation](#)()	
	Get textual representation of record for textual manifest usage.	
long	[getPacketStartTime](#)()	
	Get chunk start timecode in packetTime units.	
long	[getStartTimecode](#)()	
	Get start timecode.	
long	[getStopTimecode](#)()	
	Get stop timecode.	
int	[getType](#)()	
	Get type of manifest record.	
long	[getUtcStartTime](#)()	
	Get chunk start timecode in UTC units.	
byte[]	[serialize](#)()	
	Serialize manifest record.	
abstract void	[serialize](#)(java.io.DataOutputStream out)	
	Serialize manifest record.	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

MANIFESTFILE_KEY_INDEX

public static final java.lang.String **MANIFESTFILE_KEY_INDEX**

Constant value: **index**

MANIFESTFILE_KEY_TYPE

public static final java.lang.String **MANIFESTFILE_KEY_TYPE**

Constant value: **type**

MANIFESTFILE_KEY_START

public static final java.lang.String **MANIFESTFILE_KEY_START**

Constant value: **start**

MANIFESTFILE_KEY_STOP

public static final java.lang.String **MANIFESTFILE_KEY_STOP**

Constant value: **stop**

MANIFESTFILE_KEY_SIZE

public static final java.lang.String **MANIFESTFILE_KEY_SIZE**

Constant value: **size**

MANIFESTFILE_KEY_ARTIFACT

public static final java.lang.String **MANIFESTFILE_KEY_ARTIFACT**

Constant value: **artifact**

MANIFESTFILE_KEY_DVRTIME

public static final java.lang.String **MANIFESTFILE_KEY_DVRTIME**

Constant value: **dvrTime**

MANIFESTFILE_KEY_CHUNKINDEX

public static final java.lang.String **MANIFESTFILE_KEY_CHUNKINDEX**

Constant value: **chunkIndex**

MANIFESTFILE_KEY_PACKETTIME

public static final java.lang.String **MANIFESTFILE_KEY_PACKETTIME**

Constant value: **packetTime**

MANIFESTFILE_KEY_UTCTIME

public static final java.lang.String **MANIFESTFILE_KEY_UTCTIME**

Constant value: **utcTime**

MANIFESTFILE_KEY_NAME

public static final java.lang.String **MANIFESTFILE_KEY_NAME**

Constant value: **name**

MANIFESTFILE_KEY_AUDIO_CODEC

public static final java.lang.String **MANIFESTFILE_KEY_AUDIO_CODEC**

Constant value: **aCodec**

MANIFESTFILE_KEY_VIDEO_CODEC

`public static final java.lang.String` **`MANIFESTFILE_KEY_VIDEO_CODEC`**

Constant value: **`vCodec`**

MANIFESTFILE_KEY_ENCRYPTIONS

`public static final java.lang.String` **`MANIFESTFILE_KEY_ENCRYPTIONS`**

Constant value: **`enc`**

MANIFESTFILE_KEY_METADATA

`public static final java.lang.String` **`MANIFESTFILE_KEY_METADATA`**

Constant value: **`metadata`**

SERIALIZE_CURRENT_VERSION

`protected static final byte` **`SERIALIZE_CURRENT_VERSION`**

Constant value: **`2`**

dvrStart

`protected long` **`dvrStart`**

dvrStop

`protected long` **`dvrStop`**

packetTime

`protected long` **`packetTime`**

utcTime

`protected long` **`utcTime`**

index

`protected int` **`index`**

type

```
protected int type
```

Constructors

DvrManifestEntry

```
public DvrManifestEntry(int type,
                        int index,
                        long dvrStart,
                        long dvrStop,
                        long packetTime,
                        long utcTime)
```

Constructor Valid types include: IVHost.CONTENTTYPE_AUDIO, IVHost.CONTENTTYPE_VIDEO, IVHost.CONTENTTYPE_DATA, IDvrManifest.ON_METADATA_TYPE, IDvrManifest.CODEC_TYPE, or IDvrManifest.TIME_MAP_TYPE

Parameters:

type - type
index - manifest index
dvrStart - start time (ms in DVR time scale)
dvrStop - stop time (ms in DVR time scale)
packetTime
utcTime

Methods

getStartTimecode

```
public long getStartTimecode()
```

Get start timecode. In milliseconds, DVR time base.

Returns:

start time

getStopTimecode

```
public long getStopTimecode()
```

Get stop timecode. In milliseconds, DVR time base.

Returns:

stop time

getPacketStartTime

```
public long getPacketStartTime()
```

Get chunk start timecode in packetTime units. In milliseconds.

Returns:

packet start time

getUtcStartTime

`public long ` **`getUtcStartTime`**`()`

Get chunk start timecode in UTC units. In milliseconds.

Returns:
UTC start time

getDuration

`public long ` **`getDuration`**`()`

Get duration

Returns:
duration in ms

getType

`public int ` **`getType`**`()`

Get type of manifest record. Valid types include: IVHost.CONTENTTYPE_AUDIO, IVHost.CONTENTTYPE_VIDEO, IVHost.CONTENTTYPE_DATA, IDvrManifest.ON_METADATA_TYPE, IDvrManifest.CODEC_TYPE, or IDvrManifest.TIME_MAP_TYPE

Returns:
type

getIndex

`public int ` **`getIndex`**`()`

Get manifest index.

Returns:
index

serialize

`public abstract void ` **`serialize`**`(java.io.DataOutputStream out)`

Serialize manifest record.

Parameters:
out - output stream

serialize

`public byte[] ` **`serialize`**`()`

Serialize manifest record.

Returns:
serialized data

getManifestRepresentation

```
public abstract String getManifestRepresentation()
```

Get textual representation of record for textual manifest usage.

Returns:
textual representation of entry

getCommonInitialTextRepString

```
protected String getCommonInitialTextRepString()
```

encodeBytes

```
protected String encodeBytes(byte[] bytes)
```

Encode string of bytes as Base64. Provides check for null buffer or empty buffer.

Parameters:
`bytes` - buffer to encode.

Returns:
Base64 encoding or "".

com.wowza.wms.dvr
Class DvrManifestEntryFactory

```
java.lang.Object
    │
    +-com.wowza.wms.dvr.DvrManifestEntryFactory
```
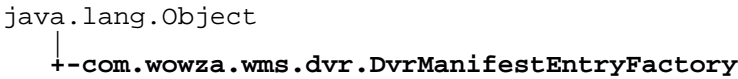
public class **DvrManifestEntryFactory**
extends Object

Deserialize manifest entry blobs.

Constructor Summary

public	[DvrManifestEntryFactory](#)()

Method Summary

static [DvrManifestEntry](#)	[deserialize](#)(byte[] data)
static [DvrManifestEntry](#)	[deserialize](#)(java.nio.ByteBuffer buffer)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

DvrManifestEntryFactory

public **DvrManifestEntryFactory**()

Methods

deserialize

public static [DvrManifestEntry](#) **deserialize**(byte[] data)

---

deserialize

public static [DvrManifestEntry](#) **deserialize**(java.nio.ByteBuffer buffer)

com.wowza.wms.dvr
Class DvrManifestEntryRange

```
java.lang.Object
    │
    +-com.wowza.wms.dvr.DvrManifestEntryRange
```

public class **DvrManifestEntryRange**
extends Object

Class that compactly represents a range of indices of a certain manifest type.

Constructor Summary

public	**DvrManifestEntryRange**(int type, int startIndex, int endIndex) Construct a range of a given type.

Method Summary

void	**deserialize**(byte[] data) Deserialize.
int	**getEndIndex**() Get end index.
IndexRange	**getRange**() Get index range.
int	**getStartIndex**() Get start index.
int	**getType**() Get range type
boolean	**isEmpty**()
boolean	**isInRange**(int index) Is index in range.
byte[]	**serialize**() Serialize range.
void	**setRange**(IndexRange range) Set index range.
String	**toString**()

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

DvrManifestEntryRange

```
public DvrManifestEntryRange(int type,
                             int startIndex,
                             int endIndex)
```

Construct a range of a given type.

Parameters:
type - manifest type
startIndex - initial member of range
endIndex - final member of range

Methods

getType

```
public int getType()
```

Get range type

Returns:
type.

getRange

```
public IndexRange getRange()
```

Get index range.

Returns:
index range

setRange

```
public void setRange(IndexRange range)
```

Set index range.

Parameters:
range - index range.

getStartIndex

```
public int getStartIndex()
```

Get start index.

Returns:
start index (or -1 if undefined)

getEndIndex

```
public int getEndIndex()
```

Get end index.

Returns:
> end index (or -1 if undefined)

isInRange

```
public boolean isInRange(int index)
```

> Is index in range.

Parameters:
> index - index in question.

Returns:
> true if part of range.

serialize

```
public byte[] serialize()
```

> Serialize range.

Returns:
> out buffer containing serialized range.

deserialize

```
public void deserialize(byte[] data)
```

> Deserialize. Called after no-op constructor.

Parameters:
> data - buffer to deserialize.

isEmpty

```
public boolean isEmpty()
```

toString

```
public String toString()
```

com.wowza.wms.dvr
Class DvrManifestEntryRangeGroup

```
java.lang.Object
    │
    +-com.wowza.wms.dvr.DvrManifestEntryRangeGroup
```

public class **DvrManifestEntryRangeGroup**
extends Object

A group of Manifest Ranges. The group may contain ranges of different types.

Field Summary

public	[ranges](#)

Constructor Summary

public	[DvrManifestEntryRangeGroup](#)()

Method Summary

void	[addRange](#)([DvrManifestEntryRange](#) range) Add an index range to the group.
void	[deserialize](#)(byte[] data) Deserialize.
boolean	[isEmpty](#)() Determine if group of ranges is empty
boolean	[isInRange](#)(int type, int index) Determine if index of given type is contained in the group of ranges.
byte[]	[serialize](#)() Serialize range group
String	[toString](#)()

Methods inherited from class `java.lang.Object`
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

ranges

public java.util.List **ranges**

Constructors

DvrManifestEntryRangeGroup

public **DvrManifestEntryRangeGroup**()

Methods

addRange

public void **addRange**(DvrManifestEntryRange range)

Add an index range to the group.

Parameters:
range

isInRange

public boolean **isInRange**(int type,
        int index)

Determine if index of given type is contained in the group of ranges.

Parameters:
type - range type
index - index in question

Returns:
true iof in range.

isEmpty

public boolean **isEmpty**()

Determine if group of ranges is empty

Returns:
true if empty

serialize

public byte[] **serialize**()

Serialize range group

Returns:
bytes representing range group

deserialize

public void **deserialize**(byte[] data)

Deserialize. Called after no-op constructor.

Parameters:

     `data` - buffer to deserialize.

toString

`public String ` **`toString`**`()`

com.wowza.wms.dvr
Class DvrManifestOnMetadataEntry

```
java.lang.Object
    │
    +-com.wowza.wms.dvr.DvrManifestEntry
        │
        +-com.wowza.wms.dvr.DvrManifestOnMetadataEntry
```

---
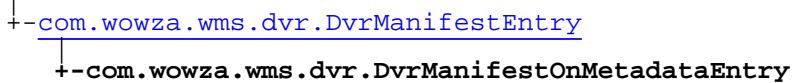
public class **DvrManifestOnMetadataEntry**
extends [DvrManifestEntry](#)

Entry in DVR manifest that contains onMetadata information and associated onMetadata chunk.

Field Summary

protected	[artifact](#)
protected	[data](#)

Fields inherited from class `com.wowza.wms.dvr.DvrManifestEntry`

[dvrStart](#), [dvrStop](#), [index](#), [MANIFESTFILE_KEY_ARTIFACT](#), [MANIFESTFILE_KEY_AUDIO_CODEC](#), [MANIFESTFILE_KEY_CHUNKINDEX](#), [MANIFESTFILE_KEY_DVRTIME](#), [MANIFESTFILE_KEY_ENCRYPTIONS](#), [MANIFESTFILE_KEY_INDEX](#), [MANIFESTFILE_KEY_METADATA](#), [MANIFESTFILE_KEY_NAME](#), [MANIFESTFILE_KEY_PACKETTIME](#), [MANIFESTFILE_KEY_SIZE](#), [MANIFESTFILE_KEY_START](#), [MANIFESTFILE_KEY_STOP](#), [MANIFESTFILE_KEY_TYPE](#), [MANIFESTFILE_KEY_UTCTIME](#), [MANIFESTFILE_KEY_VIDEO_CODEC](#), [packetTime](#), [SERIALIZE_CURRENT_VERSION](#), [type](#), [utcTime](#)

Constructor Summary

public	[DvrManifestOnMetadataEntry](#)(int index, long start, long packetTime, long utcTime, DvrChunkArtifact artifact, byte[] data) Constructor

---

Method Summary

String	[getArtifactsTextRepresentation](#)()
byte[]	[getData](#)() Get onMetadata information.
DvrChunkArtifact	[getDvrArtifact](#)()
String	[getManifestRepresentation](#)()
void	[serialize](#)(java.io.DataOutputStream out)
String	[toString](#)()

Methods inherited from class `com.wowza.wms.dvr.DvrManifestEntry`

---

encodeBytes, getCommonInitialTextRepString, getDuration, getIndex,
getManifestRepresentation, getPacketStartTime, getStartTimecode, getStopTimecode,
getType, getUtcStartTime, serialize, serialize

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Fields

artifact

protected com.wowza.wms.dvr.DvrChunkArtifact **artifact**

data

protected byte **data**

Constructors

DvrManifestOnMetadataEntry

public **DvrManifestOnMetadataEntry**(int index,
                                      long start,
                                      long packetTime,
                                      long utcTime,
                                      DvrChunkArtifact artifact,
                                      byte[] data)

Constructor

Parameters:
index - manifest index
start - start time (ms in DVR time scale)
utcTime
packetTime
artifact - reference to the chunk artifact
data - buffer of onMetadata information

Methods

getDvrArtifact

public DvrChunkArtifact **getDvrArtifact**()

getData

public byte[] **getData**()

Get onMetadata information.

Returns:

onMetadata information.

serialize

`public void` **`serialize`**`(java.io.DataOutputStream out)`

Serialize manifest record.

getManifestRepresentation

`public String` **`getManifestRepresentation`**`()`

Get textual representation of record for textual manifest usage.

getArtifactsTextRepresentation

`protected String` **`getArtifactsTextRepresentation`**`()`

toString

`public String` **`toString`**`()`

com.wowza.wms.dvr
Class DvrManifestTimeMapEntry

```
java.lang.Object
    |
    +-com.wowza.wms.dvr.DvrManifestEntry
        |
        +-com.wowza.wms.dvr.DvrManifestTimeMapEntry
```
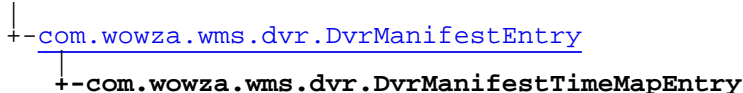
public class **DvrManifestTimeMapEntry**
extends [DvrManifestEntry](#)

Entry in DVR manifest that contains time map information.

Fields inherited from class [com.wowza.wms.dvr.DvrManifestEntry](#)

[dvrStart](#), [dvrStop](#), [index](#), [MANIFESTFILE_KEY_ARTIFACT](#), [MANIFESTFILE_KEY_AUDIO_CODEC](#), [MANIFESTFILE_KEY_CHUNKINDEX](#), [MANIFESTFILE_KEY_DVRTIME](#), [MANIFESTFILE_KEY_ENCRYPTIONS](#), [MANIFESTFILE_KEY_INDEX](#), [MANIFESTFILE_KEY_METADATA](#), [MANIFESTFILE_KEY_NAME](#), [MANIFESTFILE_KEY_PACKETTIME](#), [MANIFESTFILE_KEY_SIZE](#), [MANIFESTFILE_KEY_START](#), [MANIFESTFILE_KEY_STOP](#), [MANIFESTFILE_KEY_TYPE](#), [MANIFESTFILE_KEY_UTCTIME](#), [MANIFESTFILE_KEY_VIDEO_CODEC](#), [packetTime](#), [SERIALIZE_CURRENT_VERSION](#), [type](#), [utcTime](#)

Constructor Summary

public	[DvrManifestTimeMapEntry](#)(int index, int chunkIndex, long start, long packetTime, long utcTime, TimeMapRecord timeMap) Constructor

Method Summary

int	[getChunkIndex](#)() Get chunk index that correlates to this time mapping
String	[getManifestRepresentation](#)()
TimeMapRecord	[getTimeMapping](#)() Get time map record.
void	[serialize](#)(java.io.DataOutputStream out)
String	[toString](#)()

Methods inherited from class [com.wowza.wms.dvr.DvrManifestEntry](#)

[encodeBytes](#), [getCommonInitialTextRepString](#), [getDuration](#), [getIndex](#), [getManifestRepresentation](#), [getPacketStartTime](#), [getStartTimecode](#), [getStopTimecode](#), [getType](#), [getUtcStartTime](#), [serialize](#), [serialize](#)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

DvrManifestTimeMapEntry

```
public DvrManifestTimeMapEntry(int index,
                               int chunkIndex,
                               long start,
                               long packetTime,
                               long utcTime,
                               TimeMapRecord timeMap)
```

Constructor

Parameters:
    index - manifest index
    start - start time (ms in DVR time scale)
    timeMap - time map record

Methods

getTimeMapping

```
public TimeMapRecord getTimeMapping()
```

Get time map record.

Returns:
    time map record

getChunkIndex

```
public int getChunkIndex()
```

Get chunk index that correlates to this time mapping

Returns:
    chunk index

getManifestRepresentation

```
public String getManifestRepresentation()
```

Get textual representation of record for textual manifest usage.

serialize

```
public void serialize(java.io.DataOutputStream out)
```

Serialize manifest record.

toString

```
public String toString()
```

com.wowza.wms.dvr
Interface IDvrChannelManifest

All Subinterfaces:
> IDvrTimeMap

public interface **IDvrChannelManifest**
extends

Method Summary

long	expandEndTime(long dvrEndTime)
long	expandStartTime(long dvrStartTime)
long	getClosestStartTime(long t)
DvrManifestEntry	getFirstEntry()
int	getFirstIndex()
java.util.Map	getIndexMap()
DvrManifestEntry	getLastLiveEntry()
DvrManifestEntry	getLastRecordedEntry()
int	getLastRecordedIndex()
long	getLiveDuration()
java.util.List	getLiveEntries()
java.util.List	getLiveEntries(long startTime)
java.util.List	getLiveEntriesWithLimit(long t, int limit)
DvrManifestEntryRange	getLiveRangeEndingBeforeTime(long time)
DvrManifestEntryRange	getLiveRangeEndingBeforeTime(long time, boolean skipFirst)
java.util.List	getLiveTailEntries(int index)
int	getNumberLiveEntries(long dvrStart)
int	getNumberLiveEntries(long dvrStart, long dvrEnd)

int	[getNumberRecordedEntries](long dvrStart)	
int	[getNumberRecordedEntries](long dvrStart, long dvrEnd)	
long	[getRecordedDuration]()	
java.util.List	[getRecordedEntries]()	
java.util.List	[getRecordedEntries](long dvrStartTime)	
java.util.List	[getRecordedEntries](long dvrStartTime, long dvrEndTime)	
java.util.List	[getRecordedEntriesInRange](int startIndex, int endIndex)	
java.util.List	[getRecordedEntriesWithLimit](long t, int limit)	
[DvrManifestEntry]	[getRecordedEntryByIndex](int index)	
[DvrManifestEntry]	[getRecordedEntryByTimeKey](long t)	
[DvrManifestEntry]	[getRecordedEntryStartingBeforeTime](long t, boolean inclusive)	
int	[getType]()	
boolean	[isEmpty]()	

Methods

isEmpty

public boolean **isEmpty**()

getType

public int **getType**()

getLastRecordedIndex

public int **getLastRecordedIndex**()

getRecordedEntries

public java.util.List **getRecordedEntries**()

getRecordedEntriesInRange

```
public java.util.List getRecordedEntriesInRange(int startIndex,
        int endIndex)
```

getIndexMap

```
public java.util.Map getIndexMap()
```

getRecordedEntryByTimeKey

```
public DvrManifestEntry getRecordedEntryByTimeKey(long t)
```

getRecordedEntryByIndex

```
public DvrManifestEntry getRecordedEntryByIndex(int index)
```

getRecordedEntryStartingBeforeTime

```
public DvrManifestEntry getRecordedEntryStartingBeforeTime(long t,
        boolean inclusive)
```

getRecordedEntries

```
public java.util.List getRecordedEntries(long dvrStartTime)
```

getRecordedEntries

```
public java.util.List getRecordedEntries(long dvrStartTime,
        long dvrEndTime)
```

getRecordedEntriesWithLimit

```
public java.util.List getRecordedEntriesWithLimit(long t,
        int limit)
```

getRecordedDuration

```
public long getRecordedDuration()
```

getLiveDuration

```
public long getLiveDuration()
```

getClosestStartTime

```
public long getClosestStartTime(long t)
```

getLiveEntries

```
public java.util.List getLiveEntries()
```

getLiveTailEntries

```
public java.util.List getLiveTailEntries(int index)
```

getNumberLiveEntries

```
public int getNumberLiveEntries(long dvrStart)
```

getNumberLiveEntries

```
public int getNumberLiveEntries(long dvrStart,
        long dvrEnd)
```

getNumberRecordedEntries

```
public int getNumberRecordedEntries(long dvrStart)
```

getNumberRecordedEntries

```
public int getNumberRecordedEntries(long dvrStart,
        long dvrEnd)
```

getLiveEntries

```
public java.util.List getLiveEntries(long startTime)
```

getLiveEntriesWithLimit

```
public java.util.List getLiveEntriesWithLimit(long t,
        int limit)
```

getFirstIndex

```
public int getFirstIndex()
```

getFirstEntry

```
public DvrManifestEntry getFirstEntry()
```

getLastLiveEntry

```
public DvrManifestEntry getLastLiveEntry()
```

getLastRecordedEntry

```
public DvrManifestEntry getLastRecordedEntry()
```

getLiveRangeEndingBeforeTime

```
public DvrManifestEntryRange getLiveRangeEndingBeforeTime(long time)
```

getLiveRangeEndingBeforeTime

```
public DvrManifestEntryRange getLiveRangeEndingBeforeTime(long time,
        boolean skipFirst)
```

expandStartTime

```
public long expandStartTime(long dvrStartTime)
```

expandEndTime

```
public long expandEndTime(long dvrEndTime)
```

com.wowza.wms.dvr
Interface IDvrChunker

public interface **IDvrChunker**
extends

Method Summary

long	calculateChunkGroupTime(long dvrTime)
String	determineChunkGroupIdentifier(long dvrTime)
int	getChunkGroupDuration()
void	setChunkGroupDuration(int chunkGrouping)

Methods

getChunkGroupDuration

public int **getChunkGroupDuration**()

determineChunkGroupIdentifier

public String **determineChunkGroupIdentifier**(long dvrTime)

calculateChunkGroupTime

public long **calculateChunkGroupTime**(long dvrTime)

setChunkGroupDuration

public void **setChunkGroupDuration**(int chunkGrouping)

com.wowza.wms.dvr
Interface IDvrChunkMemoryCache

All Superinterfaces:
> IDvrRawChunkProvider

---

public interface **IDvrChunkMemoryCache**
extends IDvrRawChunkProvider

Interface for managing in-memory cache of chunks. The implementor is responsible for implementing the desired algorithm for keeping DVR chunks in memory.

Method Summary

void	**addToCache**(DvrManifestChunkEntry entry, DvrChunk chunk) Provide in-memory cache the opportunity to add the DVR chunk to its cache.
void	**init**(IDvrStreamStore store) Called to initialize the in-memory cache.
DvrChunk	**retrieveRawChunk**(DvrManifestChunkEntry entry)

Methods inherited from interface com.wowza.wms.dvr.IDvrRawChunkProvider
retrieveRawChunk

Methods

init

public void **init**(IDvrStreamStore store)

> Called to initialize the in-memory cache.

> **Parameters:**
> > store - The DVR stream store associated with this cache.

---

retrieveRawChunk

public DvrChunk **retrieveRawChunk**(DvrManifestChunkEntry entry)

---

addToCache

public void **addToCache**(DvrManifestChunkEntry entry,
        DvrChunk chunk)

> Provide in-memory cache the opportunity to add the DVR chunk to its cache. The implementation may choose to cache the chunk or ignore it.

> **Parameters:**

`entry` - DVR manifest entry
`chunk` - the chunk.

com.wowza.wms.dvr
Interface IDvrChunkUtcDelegate

public interface **IDvrChunkUtcDelegate**
extends

Delegate class for determining utc time of DVR chunk.

Method Summary

long	[determineUtcTime](long currentUtc, long aChunkStartUtc, long aFirstPacketUtc, [AMFPacket](#) aFirstPacket, long vChunkStartUtc, long vFirstPacketUtc, [AMFPacket](#) vFirstPacket)
void	[init](#)([IDvrStreamStore](#) store)

Methods

init

public void **init**([IDvrStreamStore](#) store)

determineUtcTime

public long **determineUtcTime**(long currentUtc,
        long aChunkStartUtc,
        long aFirstPacketUtc,
        [AMFPacket](#) aFirstPacket,
        long vChunkStartUtc,
        long vFirstPacketUtc,
        [AMFPacket](#) vFirstPacket)

com.wowza.wms.dvr
Interface IDvrConstants

public interface **IDvrConstants**
extends IDvrPrivateConstants

Nested Class Summary

class	[IDvrConstants.DvrTimeScale](#) IDvrConstants.DvrTimeScale

Field Summary

public static final	[ARCHIVE_STRATEGY_APPEND](#) Value: **append**
public static final	[ARCHIVE_STRATEGY_DELETE](#) Value: **delete**
public static final	[ARCHIVE_STRATEGY_VERSION](#) Value: **version**
public static final	[DEFAULT_CHUNK_MEMORY_CACHESIZE](#) Default value for DVR Property "chunkMemoryCacheSize". Value: **10**
public static final	[DEFAULT_CUPERTINO_PLAYLIST_GZIP_THRESHOLD](#) Default value for property "dvrCupertinoPlaylistGzipThreshold" #see [PROPERTY_CUPERTINO_PLAYLIST_GZIP_THRESHOLD](#) Value: **4000**
public static final	[DEFAULT_PROPERTY_ALLOWABLE_AV_PACKET_DELTA](#) Default value for DVR Property "dvrAllowableAVPacketDelta". Value: **2000**
public static final	[DEFAULT_PROPERTY_APPEND_DISCONTINUITY_DELTA](#) Default value for DVR Property "dvrAppendDiscontinuityDelta". Value: **0**
public static final	[DEFAULT_PROPERTY_AUDIO_ONLY_CHUNK_TARGET_DURATION](#) Default value for DVR Property "dvrAudioOnlyChunkTargetDuration". Value: **2000**
public static final	[DEFAULT_PROPERTY_BREAK_ON_PTS](#) Default value for DVR Property "dvrChunkBreakOnPTS". Value: **true**
public static final	[DEFAULT_PROPERTY_CHUNK_CACHE_CLASS](#) Default value for DVR Property "dvrChunkMemoryCacheClass". Value: **com.wowza.wms.dvr.impl.DvrDefaultChunkMemoryCache**

public static final	**DEFAULT_PROPERTY_CHUNK_DURATION_MINIMUM** Default value for DVR Property "dvrChunkDurationMinimum". Value: **1500**	
public static final	**DEFAULT_PROPERTY_CHUNK_GROUPING_SECONDS** Default value for DVR Property "dvrChunkGroupingSeconds". Value: **600**	
public static final	**DEFAULT_PROPERTY_CHUNK_READER_CLASS** Default value for DVR Property "dvrChunkReaderClass". Value: **com.wowza.wms.dvr.impl.io.DvrFileChunkReader**	
public static final	**DEFAULT_PROPERTY_CHUNK_WRITER_CLASS** Default value for DVR Property "dvrChunkWriterClass". Value: **com.wowza.wms.dvr.impl.io.DvrFileChunkWriter**	
public static final	**DEFAULT_PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED** Default value for DVR Property "dvrMaxInvalidChunksLogged". Value: **10**	
public static final	**DEFAULT_PROPERTY_DEBUG_MAX_RAW_PACKETS** Default value for DVR Property "dvrDebugMaximumRawPackets". Value: **200**	
public static final	**DEFAULT_PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED** Default value for DVR Property "dvrMaxValidChunksLogged". Value: **10**	
public static final	**DEFAULT_PROPERTY_DEBUG_RAW_PACKETS** Default value for DVR Property "dvrDebugRawPackets". Value: **false**	
public static final	**DEFAULT_PROPERTY_DVR_MAX_CHUNK_LOG** Default value for DVR Property "dvrMaxChunkLogCount". Value: **10**	
public static final	**DEFAULT_PROPERTY_FILE_SYSTEM_CLASS** Default value for DVR Property "dvrFileSystemClass". Value: **com.wowza.wms.dvr.impl.io.DvrDefaultFileSystem**	
public static final	**DEFAULT_PROPERTY_MANIFEST_PERSISTER_CLASS** Default value for DVR Property "dvrManifestPersisterClass". Value: **com.wowza.wms.dvr.impl.DvrManifestPersister**	
public static final	**DEFAULT_PROPERTY_MAX_RECALC_DURATION_LOG** Default value for DVR Property "dvrMaxRecountDurationLogCount". Value: **30**	
public static final	**DEFAULT_PROPERTY_MAX_RECORDING_LENGTH** Default value for DVR Property "dvrMaximumRecordingLength". Value: **108000**	
public static final	**DEFAULT_PROPERTY_MBR_ALTERNATIVE_MATCH_DELTA** Default value for DVR Property "dvrMbrAlternateMatchDelta". Value: **1000**	

public static final	DEFAULT_PROPERTY_MBR_MINIMIMUM_PACKETTIME_GAP_SIZE Default value for DVR Property "dvrMbrMinimumPacketTimeGapSize". Value: **100**
public static final	DEFAULT_PROPERTY_MBR_MINIMIMUM_UTCTIME_GAP_SIZE Default value for DVR Property "dvrMbrMinimumPacketTimeGapSize". Value: **750**
public static final	DEFAULT_PROPERTY_MEDIACACHE_READER_CLASS Default value for DVR Property "dvrMediaCacheReaderClass". Value: **com.wowza.wms.plugin.mediacache.impl.MediaCacheRandomAccessReader**
public static final	DEFAULT_PROPERTY_PACKET_DELTA_TO_NOTIFY Value: **200**
public static final	DEFAULT_PROPERTY_PACKET_DELTA_TO_RESET_TIME Default value for DVR Property "dvrResetTimePacketDelta". Value: **200**
public static final	DEFAULT_PROPERTY_PACKET_DURATION_MAXIMUM Default value for DVR Property "dvrChunkDurationMinimum". Value: **5000**
public static final	DEFAULT_PROPERTY_PACKET_SORT_TIME Default value for DVR Property "dvrPacketSortTime". Value: **0**
public static final	DEFAULT_PROPERTY_RECORDINGS_LOADER_CLASS Default value for DVR Property "dvrRecordingsLoaderClass". Value: **com.wowza.wms.dvr.DvrRecordingsLoader**
public static final	DEFAULT_PROPERTY_REPEATER_HEARTBEAT_DURATION Value: **4000**
public static final	DEFAULT_PROPERTY_SANJOSE_ABST_DURATION_TOLERANCE Default value for property "dvrSanJosePlaylistAbstDurationTolerance" #see PROPERTY_SANJOSE_ABST_DURATION_TOLERANCE Value: **50**
public static final	DEFAULT_PROPERTY_SANJOSE_ABST_TIMESCALE Default value for property "dvrSanJosePlaylistAbstTimescale" #see PROPERTY_SANJOSE_ABST_TIMESCALE Value: **1000**
public static final	DEFAULT_PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_PAUSE Value: **true**
public static final	DEFAULT_PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_SEEK Value: **true**
public static final	DEFAULT_PROPERTY_SMOOTH_MANIFEST_MAJOR_VERSION Value: **2**

public static final	DEFAULT_PROPERTY_SMOOTH_MANIFEST_MINOR_VERSION Value: **1**
public static final	DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_PAUSE Value: **true**
public static final	DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_SEEK Value: **true**
public static final	DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_SPECIFY_DURATION Value: **true**
public static final	DEFAULT_PROPERTY_STORAGE_DIRECTORY Default value for DVR Property "dvrStorageDirectory". Value: **${com.wowza.wms.context.VHostConfigHome}/dvr**
public static final	DEFAULT_PROPERTY_TEXT_READER_CLASS Default value for DVR Property "dvrTextReaderClass". Value: **com.wowza.wms.dvr.impl.io.DvrTextFileReader**
public static final	DEFAULT_PROPERTY_TEXT_WRITER_CLASS Default value for DVR Property "dvrTextWriterClass". Value: **com.wowza.wms.dvr.impl.io.DvrTextFileWriter**
public static final	DVR_DEFAULT_FILESTORE The default DVR store ID: "dvrfilestorage". Value: **dvrfilestorage**
public static final	DVR_DEFAULT_RECORDER_ID The default DVR recorder ID: "dvrrecorder". Value: **dvrrecorder**
public static final	DVR_REPEATER_PACKETIZER_ID The default DVR streaming repeater ID: "dvrstreamingrepeater". Value: **dvrstreamingrepeater**
public static final	DVR_STREAMING_PACKETIZER_ID The default DVR streaming packetizer ID: "dvrstreamingpacketizer". Value: **dvrstreamingpacketizer**
public static final	DVR_WINDOW_DURATION_UNLIMITED Value: **0**
public static final	MEDIACACHE_PREFIX The MediaCache prefix for dvr repeater Value: **dvrorigin**
public static final	MIMETYPE_VIDEO_MP4 Constant for mime type "video/mp4" Value: **video/mp4**

public static final	PROPERTY_ALLOWABLE_AV_PACKET_DELTA
	DVR Property "dvrAllowableAVPacketDelta": for specifying how much audio and video packets may diverge before triggering an error.
	Value: **dvrAllowableAVPacketDelta**
public static final	PROPERTY_APPEND_DISCONTINUITY_DELTA
	DVR Property "dvrAppendDiscontinuityDelta": for specifying how many milliseconds of empty space are put between individual recordings that when in append mode.
	Value: **dvrAppendDiscontinuityDelta**
public static final	PROPERTY_ARCHIVE_STRATEGY
	DVR Property "dvrArchiveStrategy": for specifying the DVR archive strategy.
	Value: **dvrArchiveStrategy**
public static final	PROPERTY_AUDIO_ONLY_CHUNK_TARGET_DURATION
	DVR Property "dvrAudioOnlyChunkTargetDuration": for target duration when recording audio-only.
	Value: **dvrAudioOnlyChunkTargetDuration**
public static final	PROPERTY_BREAK_ON_PTS
	DVR Property "dvrChunkBreakOnPTS": for specifying that DVR should be broken on PTS.
	Value: **dvrChunkBreakOnPTS**
public static final	PROPERTY_CHUNK_CACHE_CLASS
	DVR Property "dvrChunkMemoryCacheClass": for controlling the class responsible for caching DVR chunks in memory.
	Value: **dvrChunkMemoryCacheClass**
public static final	PROPERTY_CHUNK_DURATION_MINIMUM
	DVR Property "dvrChunkDurationMinimum": for minimum chunk duration, in milliseconds.
	Value: **dvrChunkDurationMinimum**
public static final	PROPERTY_CHUNK_GROUPING_SECONDS
	DVR Property "dvrChunkGroupingSeconds": for determining how many seconds of DVR are stored in each stores sub-folder.
	Value: **dvrChunkGroupingSeconds**
public static final	PROPERTY_CHUNK_MEMORY_CACHESIZE
	DVR Property "chunkMemoryCacheSize": used by DvrDefaultChunkMemoryCache to set number of chunks stored in DVR in-memory cache.
	Value: **chunkMemoryCacheSize**
public static final	PROPERTY_CHUNK_READER_CLASS
	DVR Property "dvrChunkReaderClass": for controlling the class responsible for reading DVR Chunks.
	Value: **dvrChunkReaderClass**
public static final	PROPERTY_CHUNK_WRITER_CLASS
	DVR Property "dvrChunkWriterClass": for controlling the class responsible for writing DVR Chunks.
	Value: **dvrChunkWriterClass**
public static final	PROPERTY_CUPERTINO_ON_CHUNK_START_RESET_COUNTER
	DVR Property "dvrCupertinoOnChunkStartResetCounter": when a new chunk starts, reset internal tsPacketizer counters
	Value: **dvrCupertinoOnChunkStartResetCounter**

public static final	PROPERTY_CUPERTINO_PLAYLIST_ALLOW_CACHING
	DVR Property "dvrCupertinoPlaylistAllowCaching": used to force Cupertino playlist to set #EXT-X-ALLOW-CACHE: value
	Value: **dvrCupertinoPlaylistAllowCaching**
public static final	PROPERTY_CUPERTINO_PLAYLIST_FORCE_LIVE
	DVR Property "dvrCupertinoPlaylistForceLive": used to override playlist request delegate logic that determines if playlist is live.
	Value: **dvrCupertinoPlaylistForceLive**
public static final	PROPERTY_CUPERTINO_PLAYLIST_FORCE_NONLIVE
	DVR Property "dvrCupertinoPlaylistForceLive": used to override playlist request delegate logic that determines if playlist is live versus non-live.
	Value: **dvrCupertinoPlaylistForceNonLive**
public static final	PROPERTY_CUPERTINO_PLAYLIST_GZIP_THRESHOLD
	DVR Property "dvrCupertinoPlaylistGzipThreshold": when playlist is larger than this number of bytes, and gzip is enabled and accepted, the playlist will be compressed
	Value: **dvrCupertinoPlaylistGzipThreshold**
public static final	PROPERTY_CUPERTINO_PLAYLIST_USE_GZIP
	DVR Property "dvrCupertinoPlaylistUseGzip": used to force Cupertino playlist to use gzip if it is accepted
	Value: **dvrCupertinoPlaylistUseGzip**
public static final	PROPERTY_DEBUG_CHUNK_RETRIEVALS
	DVR Property "dvrDebugChunkRetrievals": for logging each chunk retrieval
	Value: **dvrDebugChunkRetrievals**
public static final	PROPERTY_DEBUG_CUPERTINO_PLAYER_ADAPTER
	HTTP Streamer Property "dvrDebugCupertinoPlayerAdapter": for turning on DVR Player Cupertino Adapter debug logging.
	Value: **dvrDebugCupertinoPlayerAdapter**
public static final	PROPERTY_DEBUG_FAILED_CHUNK_RETRIEVALS
	DVR Property "dvrDebugFailedChunkRetrievals": for logging info about each failed chunk retrieval
	Value: **dvrDebugFailedChunkRetrievals**
public static final	PROPERTY_DEBUG_LOG_INVALID_CHUNK_DETAILS
	DVR Property "dvrLogInvalidChunkDetails": to control detailed logging information of DVR invalid chunks
	Value: **dvrLogInvalidChunkDetails**
public static final	PROPERTY_DEBUG_LOG_INVALID_CHUNK_MATCHER
	DVR Property "dvrLogInvalidChunkMatcher": for matching stream names that will log chunk packets
	Value: **dvrLogInvalidChunkMatcher**
public static final	PROPERTY_DEBUG_LOG_VALID_CHUNK_DETAILS
	DVR Property "dvrLogValidChunkDetails": to control detailed logging information of DVR valid chunks
	Value: **dvrLogValidChunkDetails**
public static final	PROPERTY_DEBUG_LOG_VALID_CHUNK_MATCHER
	DVR Property "dvrLogValidChunkMatcher": for matching stream names that will log chunk packets
	Value: **dvrLogValidChunkMatcher**

public static final	PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED DVR Property "dvrMaxInvalidChunksLogged": for controlling maximum number of invalid DVR chunks logged. Value: **dvrMaxInvalidChunksLogged**
public static final	PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED DVR Property "dvrMaxValidChunksLogged": for controlling maximum number of valid DVR chunks logged. Value: **dvrMaxValidChunksLogged**
public static final	PROPERTY_DEBUG_MAXIMUM_RAW_PACKETS DVR Property "dvrDebugMaximumRawPackets": for setting maximum number of logged raw packets. Value: **dvrDebugMaximumRawPackets**
public static final	PROPERTY_DEBUG_MBR_ALIGNMENT HTTP Streamer or DVR Property "dvrDebugMbrAlignment": for turning on logging of mbr alignment Value: **dvrDebugMbrAlignment**
public static final	PROPERTY_DEBUG_MBR_ALIGNMENT_RESOLUTION DVR Property "dvrDebugMbrAlignmentResolution": for turning on logging of mbr alignment resolution (requested to actual) Value: **dvrDebugMbrAlignmentResolution**
public static final	PROPERTY_DEBUG_MBR_DETAILS_WHEN_RECORD_DNE HTTP Streamer or DVR Property "dvrDebugMbrDetailsWhenRecordDNE": for turning on DVR MBR Player Adapter debug logging. Value: **dvrDebugMbrDetailsWhenRecordDNE**
public static final	PROPERTY_DEBUG_MBR_PLAYER_ADAPTER HTTP Streamer or DVR Property "dvrDebugMbrPlayerAdapter": for turning on DVR MBR Player Adapter debug logging. Value: **dvrDebugMbrPlayerAdapter**
public static final	PROPERTY_DEBUG_MBR_PLAYER_ADAPTER_IF_SHIFTED_EMPTY HTTP Streamer or DVR Property "dvrDebugMbrPlayerAdapter": for turning on DVR MBR Player Adapter debug logging when null shifted entries is returned. Value: **dvrDebugMbrPlayerAdapterWhenShiftedEmpty**
public static final	PROPERTY_DEBUG_METHODS DVR Property "dvrDebugManagerLogMethods": for turning on DVR Manager debug logging. Value: **dvrDebugManagerLogMethods**
public static final	PROPERTY_DEBUG_PLAYER_ADAPTER HTTP Streamer Property "dvrDebugPlayerAdapter": for turning on DVR Player Adapter debug logging for all streamer types. Value: **dvrDebugPlayerAdapter**
public static final	PROPERTY_DEBUG_PLAYLIST_REQUEST DVR Property "dvrDebugPlaylistRequest": for turning on logging of DVR playlist requests. Value: **dvrDebugPlaylistRequest**
public static final	PROPERTY_DEBUG_RAW_PACKETS DVR Property "dvrDebugRawPackets": for turning on logging of incoming raw packets. Value: **dvrDebugRawPackets**

public static final	PROPERTY_DEBUG_RAW_PACKETS_MATCHER 　　DVR Property "dvrDebugRawPacketsMatcher": for matching stream names that will dump raw packet. 　　Value: **dvrDebugRawPacketsMatcher**
public static final	PROPERTY_DEBUG_REPEATER 　　DVR Property "dvrDebugRepeater": for turning on logging of DVR repeater 　　Value: **dvrDebugRepeater**
public static final	PROPERTY_DEBUG_SANJOSE_PLAYER_ADAPTER 　　HTTP Streamer Property "dvrDebugSanJosePlayerAdapter": for turning on DVR Player San Jose Adapter debug logging. 　　Value: **dvrDebugSanJosePlayerAdapter**
public static final	PROPERTY_DEBUG_SMOOTH_PLAYER_ADAPTER 　　HTTP Streamer Property "dvrDebugSmoothPlayerAdapter": for turning on DVR Player Smooth Adapter debug logging. 　　Value: **dvrDebugSmoothPlayerAdapter**
public static final	PROPERTY_DEBUG_STATE_CHANGE 　　DVR Property "dvrDebugStateChange": for logging state changes of DVR store. 　　Value: **dvrDebugStateChange**
public static final	PROPERTY_DEBUG_TOSSED_HOLDERS 　　DVR Property "dvrDebugTossedHolders": for turning on logging of packets that are being tossed. 　　Value: **dvrDebugTossedHolders**
public static final	PROPERTY_ENCRYPTION_INFO_DELEGATE 　　DVR Property "dvrPlaylistEncryptionInfoDelegate": used to over-ride the encryption info on the playback side. 　　Value: **dvrPlaylistEncryptionInfoDelegate**
public static final	PROPERTY_FILE_SYSTEM_CLASS 　　DVR Property "dvrFileSystemClass": for controlling the class responsible for managing the DVR File System. 　　Value: **dvrFileSystemClass**
public static final	PROPERTY_MANIFEST_PERSISTER_CLASS 　　DVR Property "dvrManifestPersisterClass": for controlling the class responsible for persisting the manifest files. 　　Value: **dvrManifestPersisterClass**
public static final	PROPERTY_MAX_CHUNK_LOG 　　DVR Property "dvrMaxChunkLogCount": for maximum number of DVR chunks to log. 　　Value: **dvrMaxChunkLogCount**
public static final	PROPERTY_MAX_RECALC_DURATION_LOG 　　DVR Property "dvrMaxRecountDurationLogCount": for maximum number of messages to log regarding recalculating DVR chunk duration 　　Value: **dvrMaxRecountDurationLogCount**
public static final	PROPERTY_MAX_RECORDING_LENGTH 　　DVR Property "dvrMaximumRecordingLength": The maximum recording length in seconds. 　　Value: **dvrMaximumRecordingLength**

public static final	PROPERTY_MBR_ALTERNATIVE_MATCH_DELTA DVR Property "dvrMbrAlternateMatchDelta": when finding alternative for a MBR gap, an alternate is considered a match is within this many ms of the gap in question. Value: **dvrMbrAlternateMatchDelta**
public static final	PROPERTY_MBR_MINIMIMUM_PACKETTIME_GAP_SIZE DVR Property "dvrMbrMinimumPacketTimeGapSize": when doing mbr alignment gaps smaller than this are ignored. Value: **dvrMbrMinimumPacketTimeGapSize**
public static final	PROPERTY_MBR_MINIMIMUM_UTCTIME_GAP_SIZE DVR Property "dvrMbrMinimumUtcTimeGapSize": when doing mbr alignment gaps smaller than this are ignored. Value: **dvrMbrMinimumUtcTimeGapSize**
public static final	PROPERTY_MBR_USE_UTC_FOR_ALIGNMENT DVR Property "dvrMbrUseUtcForAlignment": when doing mbr alignment use utc time for alignment Value: **dvrMbrUseUtcForAlignment**
public static final	PROPERTY_MEDIACACHE_ENABLED DVR Property "dvrMediaCacheEnabled" Value: **dvrMediaCacheEnabled**
public static final	PROPERTY_MEDIACACHE_READER_CLASS DVR Property "dvrMediaCacheReaderClass" Value: **dvrMediaCacheReaderClass**
public static final	PROPERTY_PACKET_DELTA_TO_NOTIFY Value: **dvrPacketDeltaToNotify**
public static final	PROPERTY_PACKET_DELTA_TO_RESET_TIME DVR Property "dvrResetTimePacketDelta": for controlling how much Chunk start times must diverge from last chunk's end time before the DVR time gets reset. Value: **dvrResetTimePacketDelta**
public static final	PROPERTY_PACKET_DURATION_MAXIMUM DVR Property "dvrPacketDurationMaximum": for maximum packet duration, in milliseconds. Value: **dvrPacketDurationMaximum**
public static final	PROPERTY_PACKET_SORT_TIME DVR Property "dvrPacketSortTime": for sorting incoming packets. Value: **dvrPacketSortTime**
public static final	PROPERTY_PLAYLIST_REQUEST_DELEGATE DVR Property "dvrPlaylistRequestDelegate": used to over-ride the class that generates a playlist request. Value: **dvrPlaylistRequestDelegate**
public static final	PROPERTY_RECORD_AUDIO DVR Property "recordAudio": for determining if audio should be recorded. Value: **recordAudio**
public static final	PROPERTY_RECORD_DATA DVR Property "recordData": for determining if data should be recorded. Value: **recordData**

public static final	**PROPERTY_RECORD_VIDEO** DVR Property `"recordVideo"`: for determining if video should be recorded. Value: **recordVideo**
public static final	**PROPERTY_RECORDINGS_LOADER_CLASS** DVR Property `"dvrRecordingsLoaderClass"`: for controlling the class responsible for loading DVR recordings. Value: **dvrRecordingsLoaderClass**
public static final	**PROPERTY_REPEATER_HEARTBEAT_DURATION** DVR Property `"dvrRepeaterHeartbeatDuration"`: for time in ms that origin pings edges Value: **dvrRepeaterHeartbeatDuration**
public static final	**PROPERTY_REPEATER_SHARED_SECRET** DVR Property `"dvrEncryptionSharedSecret"`: for encryption shared secret between origins and edges. Value: **dvrEncryptionSharedSecret**
public static final	**PROPERTY_SANJOSE_ABST_DURATION_TOLERANCE** DVR Property `"dvrSanJosePlaylistAbstDurationEqualityTolerance"`: used to over-ride the tolerance when determining equal chunks lengths. Value: **dvrSanJosePlaylistAbstDurationTolerance**
public static final	**PROPERTY_SANJOSE_ABST_TIMESCALE** DVR Property `"dvrSanJosePlaylistAbstTimescale"`: used to over-ride the time-scale for abst files. Value: **dvrSanJosePlaylistAbstTimescale**
public static final	**PROPERTY_SANJOSE_PLAYLIST_DELIVERYTYPE** DVR Property `"dvrSanJosePlaylistDeliveryType"`: used to over-ride the mime type for DVR San Jose F4m playlists. Value: **dvrSanJosePlaylistDeliveryType**
public static final	**PROPERTY_SANJOSE_PLAYLIST_LIVE_STREAMTYPE** DVR Property `"dvrSanJosePlaylistLiveStreamType"`: used to over-ride the stream type for live DVR in San Jose f4m playlists. Value: **dvrSanJosePlaylistLiveStreamType**
public static final	**PROPERTY_SANJOSE_PLAYLIST_MIMETYPE** DVR Property `"dvrSanJosePlaylistMimeType"`: used to over-ride the mime type for DVR San Jose F4m playlists. Value: **dvrSanJosePlaylistMimeType**
public static final	**PROPERTY_SANJOSE_PLAYLIST_RECORDED_STREAMTYPE** DVR Property `"dvrSanJosePlaylistRecordedStreamType"`: used to over-ride the stream type for non-live (recorded) DVR in San Jose f4m playlists. Value: **dvrSanJosePlaylistRecordedStreamType**
public static final	**PROPERTY_SANJOSE_PLAYLIST_VERSION** DVR Property `"dvrSanJosePlaylistVersion"`: used to over-ride the version of the San Jose f4m playlist. Value: **dvrSanJosePlaylistVersion**
public static final	**PROPERTY_SMOOTH_MANIFEST_H264_CODEC** DVR Property `"dvrSmoothManifestH264Codec"`: used to force Smooth Manifest to use this as its FourCC H264 codec info. Value: **dvrSmoothManifestH264Codec**

public static final	**PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_PAUSE** DVR Property "dvrSmoothManifestLiveCanPause": used to determine is CanPause is enabled in smooth Manifest. Value: **dvrSmoothManifestLiveCanPause**
public static final	**PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_SEEK** DVR Property "dvrSmoothManifestLiveCanSeek": used to determine is CanSeek is enabled in smooth Manifest. Value: **dvrSmoothManifestLiveCanSeek**
public static final	**PROPERTY_SMOOTH_MANIFEST_MAJOR_VERSION** DVR Property "dvrSmoothManifestMajorVersion": used to determine Smooth manifest major version Value: **dvrSmoothManifestMajorVersion**
public static final	**PROPERTY_SMOOTH_MANIFEST_MINOR_VERSION** DVR Property "dvrSmoothManifestMinorVersion": used to determine Smooth manifest major version Value: **dvrSmoothManifestMinorVersion**
public static final	**PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_PAUSE** DVR Property "dvrSmoothManifestRecordedCanPause": used to determine is CanPause is enabled in smooth Manifest. Value: **dvrSmoothManifestRecordedCanPause**
public static final	**PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_SEEK** DVR Property "dvrSmoothManifestRecordedCanSeek": used to determine is CanSeek is enabled in smooth Manifest. Value: **dvrSmoothManifestRecordedCanSeek**
public static final	**PROPERTY_SMOOTH_MANIFEST_RECORDED_SPECIFY_DURATION** DVR Property "dvrSmoothManifestRecordedSpecifyDuration": used to determine if duration is specified. Value: **dvrSmoothManifestRecordedSpecifyDuration**
public static final	**PROPERTY_SMOOTH_MANIFEST_VERBOSE_DURATION** DVR Property "dvrSmoothManifestVerboseDuration": used to force Smooth Manifest to include durations for each record Value: **dvrSmoothManifestVerboseDuration**
public static final	**PROPERTY_START_RECORDING_ON_STARTUP** DVR Property "startRecordingOnStartup": for determining if DVR recorder should start recording immediately. Value: **startRecordingOnStartup**
public static final	**PROPERTY_STORAGE_DIRECTORY** DVR Property "dvrStorageDirectory": for overriding the DVR storage directory location Typically this is defined application-wide in Application.xml under Application/DVR/StorageDirectory. Value: **dvrStorageDirectory**
public static final	**PROPERTY_TEXT_READER_CLASS** DVR Property "dvrTextReaderClass": for controlling the class responsible for reading DVR text files. Value: **dvrTextReaderClass**

public static final	PROPERTY_TEXT_WRITER_CLASS	
	DVR Property "dvrTextWriterClass": for controlling the class responsible for writing DVR text files. Value: **dvrTextWriterClass**	
public static final	PROPERTY_WINDOW_DURATION	
	DVR Property "dvrWindowDuration": for specifying the DVR window duration, in seconds. Value: **dvrWindowDuration**	
public static final	SANJOSE_F4M_STREAMINGTYPE_STREAMING	
	Constant for San Jose streaming type "streaming" Value: **streaming**	
public static final	SANJOSE_F4M_STREAMTYPE_DVR	
	Constant for San Jose stream type "dvr". Value: **dvr**	
public static final	SANJOSE_F4M_STREAMTYPE_LIVE	
	Constant for San Jose stream type "live". Value: **live**	
public static final	SANJOSE_F4M_STREAMTYPE_LIVEORRECORDED	
	Constant for San Jose stream type "liveOrRecorded". Value: **liveOrRecorded**	
public static final	SANJOSE_F4M_STREAMTYPE_RECORDED	
	Constant for San Jose stream type "recorded". Value: **recorded**	
public static final	SANJOSE_F4M_VERSION_1_0	
	Constant for San Jose f4m version "1.0". Value: **1.0**	
public static final	SANJOSE_F4M_VERSION_2_0	
	Constant for San Jose f4m version "2.0". Value: **2.0**	

Fields inherited from interface com.wowza.wms.dvr.IDvrPrivateConstants

CHUNK_FILENAME_FORMAT_AUDIO, CHUNK_FILENAME_FORMAT_DATA, CHUNK_FILENAME_FORMAT_METADATA,
CHUNK_FILENAME_FORMAT_VIDEO, CHUNK_FOLDER_FORMAT, DEFAULT_PROPERTY_AUDIO_GROUP_COUNT,
DEFAULT_PROPERTY_MANIFEST_PURGE_SIZE, DEFAULT_PROPERTY_MAX_ALLOWABLE_CHUNK_DURATION,
DEFAULT_PROPERTY_MAX_SAVE_HOLDER_SIZE, DEFAULT_PROPERTY_MINIMUM_AVAILABLE_CHUNKS,
DEFAULT_PROPERTY_PURGE_CONTROL_CLASS,
DEFAULT_PROPERTY_RECALC_DURATION_MAX_AV_DIFFERENCE_TRIGGER,
DEFAULT_PROPERTY_RECALC_DURATION_TRIGGER_SIZE, DEFAULT_PROPERTY_STREAM_IDLE_TIMEOUT,
DEFAULT_PROPERTY_STREAM_STARTUP_TIMEOUT, DEFAULT_PROPERTY_UTC_ALIGN_TO_AUDIO,
DEFAULT_PROPERTY_UTC_USE_WOWZA_PACKET_ARRIVAL, DEFAULT_PROPERTY_WAIT_FOR_CODEC_TIME,
PROPERTY_AUDIO_GROUP_COUNT, PROPERTY_DEBUG_MBR_RESOLVER,
PROPERTY_DEBUG_MBR_RESOLVER_GAP_DETAILS,
PROPERTY_DEBUG_MBR_RESOLVER_INTERSECTION_DETAILS, PROPERTY_INTERCEPTOR_CHUNK_DELEGATE,
PROPERTY_MANIFEST_PURGE_CACHE_SIZE, PROPERTY_MAX_ALLOWABLE_CHUNK_DURATION,
PROPERTY_MAX_SAVE_HOLDER_SIZE, PROPERTY_MBR_USE_SIMPLEALIGNMENT,
PROPERTY_MINIMUM_AVAILABLE_CHUNKS, PROPERTY_PURGE_CONTROL_CLASS,
PROPERTY_RECALC_DURATION_MAX_AV_DIFFERENCE_TRIGGER,
PROPERTY_RECALC_DURATION_TRIGGER_SIZE, PROPERTY_UTC_ALIGN_TO_AUDIO,
PROPERTY_UTC_DELEGATE_CLASS, PROPERTY_UTC_USE_WOWZA_PACKET_ARRIVAL,
PROPERTY_VERIFY_CHUNK_EXISTENCE_ON_MANIFEST_LOAD, PROPERTY_WAIT_FOR_CODEC_TIME

Fields

DVR_STREAMING_PACKETIZER_ID

public static final java.lang.String **DVR_STREAMING_PACKETIZER_ID**

The default DVR streaming packetizer ID: `"dvrstreamingpacketizer"`.

See DVR.xml and Application.xml.
Constant value: **dvrstreamingpacketizer**

DVR_REPEATER_PACKETIZER_ID

public static final java.lang.String **DVR_REPEATER_PACKETIZER_ID**

The default DVR streaming repeater ID: `"dvrstreamingrepeater"`.

See DVR.xml and Application.xml.
Constant value: **dvrstreamingrepeater**

DVR_DEFAULT_RECORDER_ID

public static final java.lang.String **DVR_DEFAULT_RECORDER_ID**

The default DVR recorder ID: `"dvrrecorder"`.

See DVR.xml and Application.xml.
Constant value: **dvrrecorder**

DVR_DEFAULT_FILESTORE

public static final java.lang.String **DVR_DEFAULT_FILESTORE**

The default DVR store ID: `"dvrfilestorage"`.

See DVR.xml and Application.xml.
Constant value: **dvrfilestorage**

MEDIACACHE_PREFIX

`public static final java.lang.String` **`MEDIACACHE_PREFIX`**

The MediaCache prefix for dvr repeater

See MediaCache.xml
Constant value: **`dvrorigin`**

PROPERTY_CHUNK_GROUPING_SECONDS

`public static final java.lang.String` **`PROPERTY_CHUNK_GROUPING_SECONDS`**

DVR Property `"dvrChunkGroupingSeconds"`: for determining how many seconds of DVR are stored in each stores sub-folder.

The directory naming convention is HHHH_MM_SS with H = hours, M = minutes, S = seconds. Using the defaults, first directory would be named 0000_00_00 and the second directory would be named 0000_10_00, etc.

Valid values are integers greater than 60. Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **`dvrChunkGroupingSeconds`**

See Also:

[DEFAULT_PROPERTY_CHUNK_GROUPING_SECONDS](#)

DEFAULT_PROPERTY_CHUNK_GROUPING_SECONDS

`public static final int` **`DEFAULT_PROPERTY_CHUNK_GROUPING_SECONDS`**

Default value for DVR Property `"dvrChunkGroupingSeconds"`.

Default value is 600 seconds (10 minutes).
Constant value: **`600`**

See Also:

[PROPERTY_CHUNK_GROUPING_SECONDS](#)

PROPERTY_APPEND_DISCONTINUITY_DELTA

`public static final java.lang.String` **`PROPERTY_APPEND_DISCONTINUITY_DELTA`**

DVR Property `"dvrAppendDiscontinuityDelta"`: for specifying how many milliseconds of empty space are put between individual recordings that when in append mode.

Valid values are integers greater than or equal to 0. Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **`dvrAppendDiscontinuityDelta`**

See Also:

[DEFAULT_PROPERTY_APPEND_DISCONTINUITY_DELTA](#)

DEFAULT_PROPERTY_APPEND_DISCONTINUITY_DELTA

`public static final int` **`DEFAULT_PROPERTY_APPEND_DISCONTINUITY_DELTA`**

Default value for DVR Property `"dvrAppendDiscontinuityDelta"`.

Default value is 0.
Constant value: **`0`**

See Also:

PROPERTY_APPEND_DISCONTINUITY_DELTA

PROPERTY_WINDOW_DURATION

`public static final java.lang.String` **`PROPERTY_WINDOW_DURATION`**

DVR Property `"dvrWindowDuration"`: for specifying the DVR window duration, in seconds.

Typically this is defined application-wide in Application.xml under Application/DVR/WindowDuartion However, to override this on a per stream basis, the property may be set on the IDvrStreamManager after creation and before initialization. Valid values are integers greater than or equal to 0. Add the property to Application/DVR/Properties section of Application.xml. The default is 0, meaning the window size is unlimited.
Constant value: **`dvrWindowDuration`**

See Also:
DVR_WINDOW_DURATION_UNLIMITED

DVR_WINDOW_DURATION_UNLIMITED

`public static final int` **`DVR_WINDOW_DURATION_UNLIMITED`**

Constant value: **0**

PROPERTY_STORAGE_DIRECTORY

`public static final java.lang.String` **`PROPERTY_STORAGE_DIRECTORY`**

DVR Property `"dvrStorageDirectory"`: for overriding the DVR storage directory location Typically this is defined application-wide in Application.xml under Application/DVR/StorageDirectory. However, to override this on a per stream basis, the property may be set on the IDvrStreamManager after creation and before initialization.
Constant value: **`dvrStorageDirectory`**

See Also:
DEFAULT_PROPERTY_STORAGE_DIRECTORY

DEFAULT_PROPERTY_STORAGE_DIRECTORY

`public static final java.lang.String` **`DEFAULT_PROPERTY_STORAGE_DIRECTORY`**

Default value for DVR Property `"dvrStorageDirectory"`.

Default value is `"${com.wowza.wms.context.VHostConfigHome}/dvr"`.
Constant value: **`${com.wowza.wms.context.VHostConfigHome}/dvr`**

See Also:
PROPERTY_STORAGE_DIRECTORY

PROPERTY_ARCHIVE_STRATEGY

`public static final java.lang.String` **`PROPERTY_ARCHIVE_STRATEGY`**

DVR Property `"dvrArchiveStrategy"`: for specifying the DVR archive strategy.

Typically this is defined application-wide in Application.xml under Application/DVR/ArchiveStrategy However, to override this on a per stream basis, the property may be set on the IDvrStreamManager after creation and before initialization. Valid values are:
Constant value: **`dvrArchiveStrategy`**

See Also:
ARCHIVE_STRATEGY_APPEND

ARCHIVE_STRATEGY_VERSION
ARCHIVE_STRATEGY_APPEND

ARCHIVE_STRATEGY_DELETE

public static final java.lang.String **ARCHIVE_STRATEGY_DELETE**

Constant value: **delete**

ARCHIVE_STRATEGY_VERSION

public static final java.lang.String **ARCHIVE_STRATEGY_VERSION**

Constant value: **version**

ARCHIVE_STRATEGY_APPEND

public static final java.lang.String **ARCHIVE_STRATEGY_APPEND**

Constant value: **append**

PROPERTY_CHUNK_READER_CLASS

public static final java.lang.String **PROPERTY_CHUNK_READER_CLASS**

DVR Property "dvrChunkReaderClass": for controlling the class responsible for reading DVR Chunks.

The class must implement IDvrChunkReader

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **dvrChunkReaderClass**

See Also:
com.wowza.wms.dvr.io.IDvrChunkReader
DEFAULT_PROPERTY_CHUNK_READER_CLASS

DEFAULT_PROPERTY_CHUNK_READER_CLASS

public static final java.lang.String **DEFAULT_PROPERTY_CHUNK_READER_CLASS**

Default value for DVR Property "dvrChunkReaderClass".

Default value is "com.wowza.wms.dvr.impl.io.DvrFileChunkReader".
Constant value: **com.wowza.wms.dvr.impl.io.DvrFileChunkReader**

See Also:
PROPERTY_CHUNK_READER_CLASS

PROPERTY_CHUNK_WRITER_CLASS

public static final java.lang.String **PROPERTY_CHUNK_WRITER_CLASS**

DVR Property "dvrChunkWriterClass": for controlling the class responsible for writing DVR Chunks.

The class must implement IDvrChunkWriter

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **dvrChunkWriterClass**

See Also:

    com.wowza.wms.dvr.io.IDvrChunkWriter
    DEFAULT_PROPERTY_CHUNK_WRITER_CLASS

DEFAULT_PROPERTY_CHUNK_WRITER_CLASS

```
public static final java.lang.String DEFAULT_PROPERTY_CHUNK_WRITER_CLASS
```

Default value for DVR Property "dvrChunkWriterClass".

Default value is "com.wowza.wms.dvr.impl.io.DvrFileChunkWriter".
Constant value: **com.wowza.wms.dvr.impl.io.DvrFileChunkWriter**

See Also:

    PROPERTY_CHUNK_WRITER_CLASS

PROPERTY_FILE_SYSTEM_CLASS

```
public static final java.lang.String PROPERTY_FILE_SYSTEM_CLASS
```

DVR Property "dvrFileSystemClass": for controlling the class responsible for managing the DVR File System.

The class must implement com.wowza.wms.dvr.io.IDvrFileSystem and may sub-class
com.wowza.wms.dvr.impl.io.DvrDefaultFileSystem

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **dvrFileSystemClass**

See Also:

    com.wowza.wms.dvr.io.IDvrFileSystem
    DEFAULT_PROPERTY_FILE_SYSTEM_CLASS

DEFAULT_PROPERTY_FILE_SYSTEM_CLASS

```
public static final java.lang.String DEFAULT_PROPERTY_FILE_SYSTEM_CLASS
```

Default value for DVR Property "dvrFileSystemClass".

Default value is "com.wowza.wms.dvr.impl.io.DvrDefaultFileSystem".
Constant value: **com.wowza.wms.dvr.impl.io.DvrDefaultFileSystem**

See Also:

    PROPERTY_FILE_SYSTEM_CLASS

PROPERTY_MANIFEST_PERSISTER_CLASS

```
public static final java.lang.String PROPERTY_MANIFEST_PERSISTER_CLASS
```

DVR Property "dvrManifestPersisterClass": for controlling the class responsible for persisting the manifest files.

The class must implement com.wowza.wms.dvr.io.IDvrManifestPersister

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **dvrManifestPersisterClass**

See Also:

    com.wowza.wms.dvr.io.IDvrManifestPersister
    DEFAULT_PROPERTY_MANIFEST_PERSISTER_CLASS

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DEFAULT_PROPERTY_MANIFEST_PERSISTER_CLASS

public static final java.lang.String **DEFAULT_PROPERTY_MANIFEST_PERSISTER_CLASS**

Default value for DVR Property "dvrManifestPersisterClass".

Default value is "com.wowza.wms.dvr.impl.DvrManifestPersister".
Constant value: **com.wowza.wms.dvr.impl.DvrManifestPersister**

See Also:
> PROPERTY_MANIFEST_PERSISTER_CLASS

PROPERTY_CHUNK_CACHE_CLASS

public static final java.lang.String **PROPERTY_CHUNK_CACHE_CLASS**

DVR Property "dvrChunkMemoryCacheClass": for controlling the class responsible for caching DVR chunks in memory.

The class must implement IDvrChunkMemoryCache and may sub-class
com.wowza.wms.dvr.impl.DvrDefaultChunkMemoryCache

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **dvrChunkMemoryCacheClass**

See Also:
> IDvrChunkMemoryCache
> DEFAULT_PROPERTY_CHUNK_CACHE_CLASS

DEFAULT_PROPERTY_CHUNK_CACHE_CLASS

public static final java.lang.String **DEFAULT_PROPERTY_CHUNK_CACHE_CLASS**

Default value for DVR Property "dvrChunkMemoryCacheClass".

Default value is "com.wowza.wms.dvr.impl.DvrDefaultChunkMemoryCache".
Constant value: **com.wowza.wms.dvr.impl.DvrDefaultChunkMemoryCache**

See Also:
> PROPERTY_CHUNK_CACHE_CLASS

PROPERTY_RECORDINGS_LOADER_CLASS

public static final java.lang.String **PROPERTY_RECORDINGS_LOADER_CLASS**

DVR Property "dvrRecordingsLoaderClass": for controlling the class responsible for loading DVR recordings.

The class must implement IDvrRecordingsLoader

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **dvrRecordingsLoaderClass**

See Also:
> IDvrRecordingsLoader
> DEFAULT_PROPERTY_RECORDINGS_LOADER_CLASS

DEFAULT_PROPERTY_RECORDINGS_LOADER_CLASS

public static final java.lang.String **DEFAULT_PROPERTY_RECORDINGS_LOADER_CLASS**

Default value for DVR Property "dvrRecordingsLoaderClass".

Default value is "com.wowza.wms.dvr.DvrRecordingsLoader".

Constant value: **com.wowza.wms.dvr.DvrRecordingsLoader**

See Also:

PROPERTY_RECORDINGS_LOADER_CLASS

PROPERTY_TEXT_WRITER_CLASS

public static final java.lang.String **PROPERTY_TEXT_WRITER_CLASS**

DVR Property "dvrTextWriterClass": for controlling the class responsible for writing DVR text files.

The class must implement IDvrTextWriter

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **dvrTextWriterClass**

See Also:

IDvrTextWriter
DEFAULT_PROPERTY_TEXT_WRITER_CLASS

DEFAULT_PROPERTY_TEXT_WRITER_CLASS

public static final java.lang.String **DEFAULT_PROPERTY_TEXT_WRITER_CLASS**

Default value for DVR Property "dvrTextWriterClass".

Default value is "com.wowza.wms.dvr.impl.io.DvrTextFileWriter".
Constant value: **com.wowza.wms.dvr.impl.io.DvrTextFileWriter**

See Also:

PROPERTY_TEXT_WRITER_CLASS

PROPERTY_TEXT_READER_CLASS

public static final java.lang.String **PROPERTY_TEXT_READER_CLASS**

DVR Property "dvrTextReaderClass": for controlling the class responsible for reading DVR text files.

The class must implement IDvrTextReader

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **dvrTextReaderClass**

See Also:

IDvrTextReader
DEFAULT_PROPERTY_TEXT_READER_CLASS

DEFAULT_PROPERTY_TEXT_READER_CLASS

public static final java.lang.String **DEFAULT_PROPERTY_TEXT_READER_CLASS**

Default value for DVR Property "dvrTextReaderClass".

Default value is "com.wowza.wms.dvr.impl.io.DvrTextFileReader".
Constant value: **com.wowza.wms.dvr.impl.io.DvrTextFileReader**

See Also:

PROPERTY_TEXT_READER_CLASS

PROPERTY_ALLOWABLE_AV_PACKET_DELTA

`public static final java.lang.String` **`PROPERTY_ALLOWABLE_AV_PACKET_DELTA`**

DVR Property `"dvrAllowableAVPacketDelta"`: for specifying how much audio and video packets may diverge before triggering an error.

Wowza nDVR expects the incoming audio and video to be aligned. Through this parameter, Wowza nDVR will try to compensate for out of alignment issues, but it cannot resolve them. This setting safeguards against audio and data video packets that are not closely aligned. The units are in ms. The default value is 2000 ms. If audio and video are out of alignment by more than this value, the audio and video chunks will be ignored in an attempt to get the streams back into alignment. If you already have an out of alignment issue, increasing the default value is likely to cause more problems. Increasing this value will increase the number of chunks not recorded which may cause the overall quality to be unacceptable.

Add the property to Application/DVR/Properties section of Application.xml.
Constant value: **`dvrAllowableAVPacketDelta`**

See Also:
> [DEFAULT_PROPERTY_ALLOWABLE_AV_PACKET_DELTA](#)

DEFAULT_PROPERTY_ALLOWABLE_AV_PACKET_DELTA

`public static final int` **`DEFAULT_PROPERTY_ALLOWABLE_AV_PACKET_DELTA`**

Default value for DVR Property `"dvrAllowableAVPacketDelta"`.

Default value is 2000 ms.
Constant value: **`2000`**

See Also:
> [PROPERTY_ALLOWABLE_AV_PACKET_DELTA](#)

PROPERTY_PACKET_DELTA_TO_RESET_TIME

`public static final java.lang.String` **`PROPERTY_PACKET_DELTA_TO_RESET_TIME`**

DVR Property `"dvrResetTimePacketDelta"`: for controlling how much Chunk start times must diverge from last chunk's end time before the DVR time gets reset.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrResetTimePacketDelta`**

See Also:
> [DEFAULT_PROPERTY_PACKET_DELTA_TO_RESET_TIME](#)

DEFAULT_PROPERTY_PACKET_DELTA_TO_RESET_TIME

`public static final int` **`DEFAULT_PROPERTY_PACKET_DELTA_TO_RESET_TIME`**

Default value for DVR Property `"dvrResetTimePacketDelta"`.

Default value is 200 ms.
Constant value: **`200`**

See Also:
> [PROPERTY_PACKET_DELTA_TO_RESET_TIME](#)

PROPERTY_PACKET_DELTA_TO_NOTIFY

`public static final java.lang.String` **`PROPERTY_PACKET_DELTA_TO_NOTIFY`**

Constant value: **dvrPacketDeltaToNotify**

DEFAULT_PROPERTY_PACKET_DELTA_TO_NOTIFY

`public static final int` **DEFAULT_PROPERTY_PACKET_DELTA_TO_NOTIFY**

Constant value: **200**

PROPERTY_RECORD_DATA

`public static final java.lang.String` **PROPERTY_RECORD_DATA**

DVR Property `"recordData"`: for determining if data should be recorded.

Set property to: true to record data of incoming stream. Default is true. Set property to: false to ignore data packets during recording.
Constant value: **recordData**

PROPERTY_RECORD_VIDEO

`public static final java.lang.String` **PROPERTY_RECORD_VIDEO**

DVR Property `"recordVideo"`: for determining if video should be recorded.

Set property to: true to record video of incoming stream. Default is true. Set property to: false to ignore video packets during recording. Either recordVideo or recordAudio property must be set to: true
Constant value: **recordVideo**

PROPERTY_RECORD_AUDIO

`public static final java.lang.String` **PROPERTY_RECORD_AUDIO**

DVR Property `"recordAudio"`: for determining if audio should be recorded.

Set property to: true to record audio of incoming stream. Default is true. Set property to: false to ignore audio packets during recording. Either recordVideo or recordAudio property must be set to: true
Constant value: **recordAudio**

PROPERTY_START_RECORDING_ON_STARTUP

`public static final java.lang.String` **PROPERTY_START_RECORDING_ON_STARTUP**

DVR Property `"startRecordingOnStartup"`: for determining if DVR recorder should start recording immediately.

Set property to: true (default) to start recording immediately when stream is detected. Set property to: false to init the DVR recorder but to not start recording immediately when stream starts.
Constant value: **startRecordingOnStartup**

PROPERTY_AUDIO_ONLY_CHUNK_TARGET_DURATION

`public static final java.lang.String` **PROPERTY_AUDIO_ONLY_CHUNK_TARGET_DURATION**

DVR Property `"dvrAudioOnlyChunkTargetDuration"`: for target duration when recording audio-only.

Applies to recording an audio-only stream and is the target chunk duration. The unit is in ms. The default value is 2000 ms. This setting is ignored if the stream contains video and audio, in which case the keyframe determines the chunk size.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrAudioOnlyChunkTargetDuration**

See Also:

DEFAULT_PROPERTY_AUDIO_ONLY_CHUNK_TARGET_DURATION

DEFAULT_PROPERTY_AUDIO_ONLY_CHUNK_TARGET_DURATION

`public static final int `**`DEFAULT_PROPERTY_AUDIO_ONLY_CHUNK_TARGET_DURATION`**

Default value for DVR Property `"dvrAudioOnlyChunkTargetDuration"`.

Default value is 2000 ms.
Constant value: **`2000`**

See Also:

PROPERTY_AUDIO_ONLY_CHUNK_TARGET_DURATION

PROPERTY_PACKET_SORT_TIME

`public static final java.lang.String `**`PROPERTY_PACKET_SORT_TIME`**

DVR Property `"dvrPacketSortTime"`: for sorting incoming packets. Specified in milliseconds.

Valid values are a integer greater than equal to 0. Zero means no sorting occurs. Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrPacketSortTime`**

See Also:

DEFAULT_PROPERTY_PACKET_SORT_TIME

DEFAULT_PROPERTY_PACKET_SORT_TIME

`public static final int `**`DEFAULT_PROPERTY_PACKET_SORT_TIME`**

Default value for DVR Property `"dvrPacketSortTime"`.

Default value is 0 ms (i.e. no sorting).
Constant value: **`0`**

See Also:

PROPERTY_PACKET_SORT_TIME

PROPERTY_BREAK_ON_PTS

`public static final java.lang.String `**`PROPERTY_BREAK_ON_PTS`**

DVR Property `"dvrChunkBreakOnPTS"`: for specifying that DVR should be broken on PTS.

Valid values are "true" or "false" Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrChunkBreakOnPTS`**

See Also:

DEFAULT_PROPERTY_BREAK_ON_PTS

DEFAULT_PROPERTY_BREAK_ON_PTS

`public static final boolean `**`DEFAULT_PROPERTY_BREAK_ON_PTS`**

Default value for DVR Property `"dvrChunkBreakOnPTS"`.

Default value is true.
Constant value: **`true`**

See Also:

PROPERTY_BREAK_ON_PTS

PROPERTY_REPEATER_SHARED_SECRET

`public static final java.lang.String` **`PROPERTY_REPEATER_SHARED_SECRET`**

DVR Property "`dvrEncryptionSharedSecret`": for encryption shared secret between origins and edges. In Origin-Edge scenarios when Wowza is using encryption, a shared secret must be defined for both origin and edges to encrypt the information sent between origin and edge so that encryption information is not revealed.

A String values.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrEncryptionSharedSecret`**

PROPERTY_REPEATER_HEARTBEAT_DURATION

`public static final java.lang.String` **`PROPERTY_REPEATER_HEARTBEAT_DURATION`**

DVR Property "`dvrRepeaterHeartbeatDuration`": for time in ms that origin pings edges

A Integer Value.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrRepeaterHeartbeatDuration`**

DEFAULT_PROPERTY_REPEATER_HEARTBEAT_DURATION

`public static final int` **`DEFAULT_PROPERTY_REPEATER_HEARTBEAT_DURATION`**

Constant value: **`4000`**

PROPERTY_CHUNK_DURATION_MINIMUM

`public static final java.lang.String` **`PROPERTY_CHUNK_DURATION_MINIMUM`**

DVR Property "`dvrChunkDurationMinimum`": for minimum chunk duration, in milliseconds.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrChunkDurationMinimum`**

See Also:
    DEFAULT_PROPERTY_CHUNK_DURATION_MINIMUM

DEFAULT_PROPERTY_CHUNK_DURATION_MINIMUM

`public static final int` **`DEFAULT_PROPERTY_CHUNK_DURATION_MINIMUM`**

Default value for DVR Property "`dvrChunkDurationMinimum`".

Default value is 1500 ms.
Constant value: **`1500`**

See Also:
    PROPERTY_CHUNK_DURATION_MINIMUM

PROPERTY_CHUNK_MEMORY_CACHESIZE

`public static final java.lang.String` **`PROPERTY_CHUNK_MEMORY_CACHESIZE`**

DVR Property `"chunkMemoryCacheSize"`: used by DvrDefaultChunkMemoryCache to set number of chunks stored in DVR in-memory cache.

Default value is DEFAULT_CHUNK_MEMORY_CACHESIZE

Add this to Application/DVR/Properties section of Application.xml
Constant value: **chunkMemoryCacheSize**

DEFAULT_CHUNK_MEMORY_CACHESIZE

`public static final int` **DEFAULT_CHUNK_MEMORY_CACHESIZE**

Default value for DVR Property `"chunkMemoryCacheSize"`.

Default value is 10 chunks.
Constant value: **10**

See Also:
PROPERTY_CHUNK_MEMORY_CACHESIZE

PROPERTY_MBR_USE_UTC_FOR_ALIGNMENT

`public static final java.lang.String` **PROPERTY_MBR_USE_UTC_FOR_ALIGNMENT**

DVR Property `"dvrMbrUseUtcForAlignment"`: when doing mbr alignment use utc time for alignment

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrMbrUseUtcForAlignment**

PROPERTY_MBR_MINIMIMUM_PACKETTIME_GAP_SIZE

`public static final java.lang.String` **PROPERTY_MBR_MINIMIMUM_PACKETTIME_GAP_SIZE**

DVR Property `"dvrMbrMinimumPacketTimeGapSize"`: when doing mbr alignment gaps smaller than this are ignored.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrMbrMinimumPacketTimeGapSize**

See Also:
DEFAULT_PROPERTY_MBR_MINIMIMUM_PACKETTIME_GAP_SIZE

PROPERTY_MBR_ALTERNATIVE_MATCH_DELTA

`public static final java.lang.String` **PROPERTY_MBR_ALTERNATIVE_MATCH_DELTA**

DVR Property `"dvrMbrAlternateMatchDelta"`: when finding alternative for a MBR gap, an alternate is considered a match is within this many ms of the gap in question.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrMbrAlternateMatchDelta**

See Also:
DEFAULT_PROPERTY_MBR_ALTERNATIVE_MATCH_DELTA

DEFAULT_PROPERTY_MBR_ALTERNATIVE_MATCH_DELTA

`public static final int` **DEFAULT_PROPERTY_MBR_ALTERNATIVE_MATCH_DELTA**

Default value for DVR Property `"dvrMbrAlternateMatchDelta"`.

Default value is 1000 ms.
Constant value: **1000**

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See Also:
PROPERTY_MBR_ALTERNATIVE_MATCH_DELTA

PROPERTY_PACKET_DURATION_MAXIMUM

public static final java.lang.String **PROPERTY_PACKET_DURATION_MAXIMUM**

DVR Property "dvrPacketDurationMaximum": for maximum packet duration, in milliseconds.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrPacketDurationMaximum**

See Also:
DEFAULT_PROPERTY_PACKET_DURATION_MAXIMUM

DEFAULT_PROPERTY_PACKET_DURATION_MAXIMUM

public static final int **DEFAULT_PROPERTY_PACKET_DURATION_MAXIMUM**

Default value for DVR Property "dvrChunkDurationMinimum".

Default value is 5000 ms.
Constant value: **5000**

See Also:
PROPERTY_PACKET_DURATION_MAXIMUM

DEFAULT_PROPERTY_MBR_MINIMIMUM_PACKETTIME_GAP_SIZE

public static final int **DEFAULT_PROPERTY_MBR_MINIMIMUM_PACKETTIME_GAP_SIZE**

Default value for DVR Property "dvrMbrMinimumPacketTimeGapSize".

Default value is 100 ms.
Constant value: **100**

See Also:
PROPERTY_MBR_MINIMIMUM_PACKETTIME_GAP_SIZE

PROPERTY_MBR_MINIMIMUM_UTCTIME_GAP_SIZE

public static final java.lang.String **PROPERTY_MBR_MINIMIMUM_UTCTIME_GAP_SIZE**

DVR Property "dvrMbrMinimumUtcTimeGapSize": when doing mbr alignment gaps smaller than this are ignored.

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrMbrMinimumUtcTimeGapSize**

See Also:
DEFAULT_PROPERTY_MBR_MINIMIMUM_UTCTIME_GAP_SIZE

DEFAULT_PROPERTY_MBR_MINIMIMUM_UTCTIME_GAP_SIZE

public static final int **DEFAULT_PROPERTY_MBR_MINIMIMUM_UTCTIME_GAP_SIZE**

Default value for DVR Property "dvrMbrMinimumPacketTimeGapSize".

Default value is 750 ms.
Constant value: **750**

See Also:
>   PROPERTY_MBR_MINIMIMUM_UTCTIME_GAP_SIZE

PROPERTY_MAX_RECORDING_LENGTH

```
public static final java.lang.String PROPERTY_MAX_RECORDING_LENGTH
```

DVR Property "dvrMaximumRecordingLength": The maximum recording length in seconds. Recording stops when it reaches this value.

Add the property to Application/DVR/Properties section of Application.xml A value of zero means no maximum recording length is enforced. If used in conjunction with DVRWindow, should be slightly larger (1-2%) than DVRWindow.
Constant value: **dvrMaximumRecordingLength**

See Also:
>   DEFAULT_PROPERTY_MAX_RECORDING_LENGTH

DEFAULT_PROPERTY_MAX_RECORDING_LENGTH

```
public static final long DEFAULT_PROPERTY_MAX_RECORDING_LENGTH
```

Default value for DVR Property "dvrMaximumRecordingLength".

Default value is 108000 (30 hours)
Constant value: **108000**

See Also:
>   PROPERTY_MAX_RECORDING_LENGTH

PROPERTY_MEDIACACHE_ENABLED

```
public static final java.lang.String PROPERTY_MEDIACACHE_ENABLED
```

DVR Property "dvrMediaCacheEnabled"

Add the property to Application/DVR/Properties section of Application.xml Default is false.
Constant value: **dvrMediaCacheEnabled**

PROPERTY_MEDIACACHE_READER_CLASS

```
public static final java.lang.String PROPERTY_MEDIACACHE_READER_CLASS
```

DVR Property "dvrMediaCacheReaderClass"

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrMediaCacheReaderClass**

See Also:
>   DEFAULT_PROPERTY_MEDIACACHE_READER_CLASS

DEFAULT_PROPERTY_MEDIACACHE_READER_CLASS

```
public static final java.lang.String DEFAULT_PROPERTY_MEDIACACHE_READER_CLASS
```

Default value for DVR Property "dvrMediaCacheReaderClass".
Constant value: **com.wowza.wms.plugin.mediacache.impl.MediaCacheRandomAccessReader**

See Also:
>   PROPERTY_MEDIACACHE_READER_CLASS

PROPERTY_DEBUG_LOG_INVALID_CHUNK_DETAILS

`public static final java.lang.String` **`PROPERTY_DEBUG_LOG_INVALID_CHUNK_DETAILS`**

DVR Property `"dvrLogInvalidChunkDetails"`: to control detailed logging information of DVR invalid chunks

The default is false, meaning do not log invalid chunks. Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrLogInvalidChunkDetails`**

See Also:

> PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED

PROPERTY_DEBUG_LOG_INVALID_CHUNK_MATCHER

`public static final java.lang.String` **`PROPERTY_DEBUG_LOG_INVALID_CHUNK_MATCHER`**

DVR Property `"dvrLogInvalidChunkMatcher"`: for matching stream names that will log chunk packets

Only affects logging if PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED is true.
Constant value: **`dvrLogInvalidChunkMatcher`**

See Also:

> PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED

PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED

`public static final java.lang.String` **`PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED`**

DVR Property `"dvrMaxInvalidChunksLogged"`: for controlling maximum number of invalid DVR chunks logged.

The default is 10. Logging only occurs if property PROPERTY_DEBUG_LOG_INVALID_CHUNK_DETAILS is true. Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrMaxInvalidChunksLogged`**

See Also:

> DEFAULT_PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED
> PROPERTY_DEBUG_LOG_INVALID_CHUNK_DETAILS

DEFAULT_PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED

`public static final int` **`DEFAULT_PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED`**

Default value for DVR Property `"dvrMaxInvalidChunksLogged"`.

Default value is 10.
Constant value: **`10`**

See Also:

> PROPERTY_DEBUG_LOG_INVALID_CHUNK_DETAILS
> PROPERTY_DEBUG_MAX_INVALID_CHUNKS_LOGGED

PROPERTY_DEBUG_LOG_VALID_CHUNK_DETAILS

`public static final java.lang.String` **`PROPERTY_DEBUG_LOG_VALID_CHUNK_DETAILS`**

DVR Property `"dvrLogValidChunkDetails"`: to control detailed logging information of DVR valid chunks

The default is false, meaning do not log valid chunks. Add the property to Application/DVR/Properties section of Application.xml
Constant value: **`dvrLogValidChunkDetails`**

See Also:

> PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED

PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED

`public static final java.lang.String PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED`

> DVR Property `"dvrMaxValidChunksLogged"`: for controlling maximum number of valid DVR chunks logged.
>
> The default is 10. Logging only occurs if property PROPERTY_DEBUG_LOG_VALID_CHUNK_DETAILS is true. Add the property to Application/DVR/Properties section of Application.xml
> Constant value: **dvrMaxValidChunksLogged**
>
> See Also:
>
> > DEFAULT_PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED
> > PROPERTY_DEBUG_LOG_VALID_CHUNK_DETAILS

DEFAULT_PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED

`public static final int DEFAULT_PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED`

> Default value for DVR Property `"dvrMaxValidChunksLogged"`.
>
> Default value is 10.
> Constant value: **10**
>
> See Also:
>
> > PROPERTY_DEBUG_LOG_VALID_CHUNK_DETAILS
> > PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED

PROPERTY_DEBUG_LOG_VALID_CHUNK_MATCHER

`public static final java.lang.String PROPERTY_DEBUG_LOG_VALID_CHUNK_MATCHER`

> DVR Property `"dvrLogValidChunkMatcher"`: for matching stream names that will log chunk packets
>
> Only affects logging if PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED is true.
> Constant value: **dvrLogValidChunkMatcher**
>
> See Also:
>
> > PROPERTY_DEBUG_MAX_VALID_CHUNKS_LOGGED

PROPERTY_DEBUG_TOSSED_HOLDERS

`public static final java.lang.String PROPERTY_DEBUG_TOSSED_HOLDERS`

> DVR Property `"dvrDebugTossedHolders"`: for turning on logging of packets that are being tossed.
>
> Valid values are "true" or "false". Default is false.
> Constant value: **dvrDebugTossedHolders**

PROPERTY_DEBUG_RAW_PACKETS

`public static final java.lang.String PROPERTY_DEBUG_RAW_PACKETS`

> DVR Property `"dvrDebugRawPackets"`: for turning on logging of incoming raw packets.
>
> Valid values are "true" or "false".
> Constant value: **dvrDebugRawPackets**
>
> See Also:

PROPERTY_DEBUG_MAXIMUM_RAW_PACKETS

DEFAULT_PROPERTY_DEBUG_RAW_PACKETS

`public static final boolean DEFAULT_PROPERTY_DEBUG_RAW_PACKETS`

Default value for DVR Property `"dvrDebugRawPackets"`.

Default value is false.
Constant value: **false**

See Also:

PROPERTY_DEBUG_RAW_PACKETS
PROPERTY_DEBUG_RAW_PACKETS_MATCHER

PROPERTY_DEBUG_RAW_PACKETS_MATCHER

`public static final java.lang.String PROPERTY_DEBUG_RAW_PACKETS_MATCHER`

DVR Property `"dvrDebugRawPacketsMatcher"`: for matching stream names that will dump raw packet.

Only affects logging if PROPERTY_DEBUG_RAW_PACKETS is true.
Constant value: **dvrDebugRawPacketsMatcher**

See Also:

PROPERTY_DEBUG_RAW_PACKETS

PROPERTY_DEBUG_MAXIMUM_RAW_PACKETS

`public static final java.lang.String PROPERTY_DEBUG_MAXIMUM_RAW_PACKETS`

DVR Property `"dvrDebugMaximumRawPackets"`: for setting maximum number of logged raw packets.

Valid values is an integer. 0 means there is no limit.

Only affects logging if PROPERTY_DEBUG_RAW_PACKETS is true.
Constant value: **dvrDebugMaximumRawPackets**

See Also:

PROPERTY_DEBUG_RAW_PACKETS

DEFAULT_PROPERTY_DEBUG_MAX_RAW_PACKETS

`public static final int DEFAULT_PROPERTY_DEBUG_MAX_RAW_PACKETS`

Default value for DVR Property `"dvrDebugMaximumRawPackets"`.

Default value is 200 log statements.
Constant value: **200**

See Also:

PROPERTY_DEBUG_MAXIMUM_RAW_PACKETS

PROPERTY_DEBUG_STATE_CHANGE

`public static final java.lang.String PROPERTY_DEBUG_STATE_CHANGE`

DVR Property `"dvrDebugStateChange"`: for logging state changes of DVR store.
Constant value: **dvrDebugStateChange**

PROPERTY_DEBUG_CHUNK_RETRIEVALS

public static final java.lang.String **PROPERTY_DEBUG_CHUNK_RETRIEVALS**

DVR Property "`dvrDebugChunkRetrievals`": for logging each chunk retrieval
Constant value: **dvrDebugChunkRetrievals**

PROPERTY_DEBUG_FAILED_CHUNK_RETRIEVALS

public static final java.lang.String **PROPERTY_DEBUG_FAILED_CHUNK_RETRIEVALS**

DVR Property "`dvrDebugFailedChunkRetrievals`": for logging info about each failed chunk retrieval
Constant value: **dvrDebugFailedChunkRetrievals**

PROPERTY_MAX_CHUNK_LOG

public static final java.lang.String **PROPERTY_MAX_CHUNK_LOG**

DVR Property "`dvrMaxChunkLogCount`": for maximum number of DVR chunks to log.

Maximum number of chunks to log recording information about in the wowzamedia_access.log file. As recording is continued past this value, there is no feedback for normal operation in the log. View directories and files created in [install-dir]/dvr for on-going feedback that recording is occurring. Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrMaxChunkLogCount**

See Also:
> DEFAULT_PROPERTY_DVR_MAX_CHUNK_LOG

DEFAULT_PROPERTY_DVR_MAX_CHUNK_LOG

public static final int **DEFAULT_PROPERTY_DVR_MAX_CHUNK_LOG**

Default value for DVR Property "`dvrMaxChunkLogCount`".

Default value is 10 logging statements.
Constant value: **10**

See Also:
> PROPERTY_MAX_CHUNK_LOG

PROPERTY_MAX_RECALC_DURATION_LOG

public static final java.lang.String **PROPERTY_MAX_RECALC_DURATION_LOG**

DVR Property "`dvrMaxRecountDurationLogCount`": for maximum number of messages to log regarding recalculating DVR chunk duration

Maximum number of log statements recorded regarding chunk duration being recalculated. A value less than 0 means all statements will be logged with no limit.
Constant value: **dvrMaxRecountDurationLogCount**

See Also:
> DEFAULT_PROPERTY_MAX_RECALC_DURATION_LOG

DEFAULT_PROPERTY_MAX_RECALC_DURATION_LOG

public static final int **DEFAULT_PROPERTY_MAX_RECALC_DURATION_LOG**

Default value for DVR Property "`dvrMaxRecountDurationLogCount`".

Default value is 30 logging statements.

Constant value: **30**

See Also:

PROPERTY_DEBUG_METHODS

public static final java.lang.String **PROPERTY_DEBUG_METHODS**

DVR Property "dvrDebugManagerLogMethods": for turning on DVR Manager debug logging.

Valid values are "true" or "false".

Add the property to Application/DVR/Properties section of Application.xml
Constant value: **dvrDebugManagerLogMethods**

PROPERTY_DEBUG_REPEATER

public static final java.lang.String **PROPERTY_DEBUG_REPEATER**

DVR Property "dvrDebugRepeater": for turning on logging of DVR repeater

Valid values are "true" or "false".
Constant value: **dvrDebugRepeater**

PROPERTY_DEBUG_PLAYER_ADAPTER

public static final java.lang.String **PROPERTY_DEBUG_PLAYER_ADAPTER**

HTTP Streamer Property "dvrDebugPlayerAdapter": for turning on DVR Player Adapter debug logging for all streamer types.

Valid values are "true" or "false". (Default is false)

Add this property to Application/HTTPStreamer/Properties.
Constant value: **dvrDebugPlayerAdapter**

PROPERTY_DEBUG_SMOOTH_PLAYER_ADAPTER

public static final java.lang.String **PROPERTY_DEBUG_SMOOTH_PLAYER_ADAPTER**

HTTP Streamer Property "dvrDebugSmoothPlayerAdapter": for turning on DVR Player Smooth Adapter debug logging.

Valid values are "true" or "false". (Default is false)

Add this property to Application/HTTPStreamer/Properties.
Constant value: **dvrDebugSmoothPlayerAdapter**

PROPERTY_DEBUG_SANJOSE_PLAYER_ADAPTER

public static final java.lang.String **PROPERTY_DEBUG_SANJOSE_PLAYER_ADAPTER**

HTTP Streamer Property "dvrDebugSanJosePlayerAdapter": for turning on DVR Player San Jose Adapter debug logging.

Valid values are "true" or "false". (Default is false)

Add this property to Application/HTTPStreamer/Properties.
Constant value: **dvrDebugSanJosePlayerAdapter**

PROPERTY_DEBUG_CUPERTINO_PLAYER_ADAPTER

`public static final java.lang.String` **`PROPERTY_DEBUG_CUPERTINO_PLAYER_ADAPTER`**

HTTP Streamer Property `"dvrDebugCupertinoPlayerAdapter"`: for turning on DVR Player Cupertino Adapter debug logging.

Valid values are "true" or "false". (Default is false)

Add this property to Application/HTTPStreamer/Properties.
Constant value: **`dvrDebugCupertinoPlayerAdapter`**

PROPERTY_DEBUG_MBR_PLAYER_ADAPTER

`public static final java.lang.String` **`PROPERTY_DEBUG_MBR_PLAYER_ADAPTER`**

HTTP Streamer or DVR Property `"dvrDebugMbrPlayerAdapter"`: for turning on DVR MBR Player Adapter debug logging.

Valid values are "true" or "false". (Default is false)

Add this property to Application/HTTPStreamer/Properties.
Constant value: **`dvrDebugMbrPlayerAdapter`**

PROPERTY_DEBUG_MBR_PLAYER_ADAPTER_IF_SHIFTED_EMPTY

`public static final java.lang.String`
`PROPERTY_DEBUG_MBR_PLAYER_ADAPTER_IF_SHIFTED_EMPTY`

HTTP Streamer or DVR Property `"dvrDebugMbrPlayerAdapter"`: for turning on DVR MBR Player Adapter debug logging when null shifted entries is returned.

Valid values are "true" or "false". (Default is false)

Add this property to Application/HTTPStreamer/Properties.
Constant value: **`dvrDebugMbrPlayerAdapterWhenShiftedEmpty`**

PROPERTY_DEBUG_MBR_DETAILS_WHEN_RECORD_DNE

`public static final java.lang.String` **`PROPERTY_DEBUG_MBR_DETAILS_WHEN_RECORD_DNE`**

HTTP Streamer or DVR Property `"dvrDebugMbrDetailsWhenRecordDNE"`: for turning on DVR MBR Player Adapter debug logging.

Valid values are "true" or "false". (Default is false)

Add this property to Application/HTTPStreamer/Properties.
Constant value: **`dvrDebugMbrDetailsWhenRecordDNE`**

PROPERTY_DEBUG_MBR_ALIGNMENT

`public static final java.lang.String` **`PROPERTY_DEBUG_MBR_ALIGNMENT`**

HTTP Streamer or DVR Property `"dvrDebugMbrAlignment"`: for turning on logging of mbr alignment

Valid values are "true" or "false". Default is false.
Constant value: **`dvrDebugMbrAlignment`**

PROPERTY_DEBUG_MBR_ALIGNMENT_RESOLUTION

`public static final java.lang.String` **`PROPERTY_DEBUG_MBR_ALIGNMENT_RESOLUTION`**

DVR Property "dvrDebugMbrAlignmentResolution": for turning on logging of mbr alignment resolution (requested to actual)

Valid values are "true" or "false". Default is false.
Constant value: **dvrDebugMbrAlignmentResolution**

PROPERTY_DEBUG_PLAYLIST_REQUEST

public static final java.lang.String **PROPERTY_DEBUG_PLAYLIST_REQUEST**

DVR Property "dvrDebugPlaylistRequest": for turning on logging of DVR playlist requests.

Valid values are "true" or "false". Default is false.
Constant value: **dvrDebugPlaylistRequest**

PROPERTY_PLAYLIST_REQUEST_DELEGATE

public static final java.lang.String **PROPERTY_PLAYLIST_REQUEST_DELEGATE**

DVR Property "dvrPlaylistRequestDelegate": used to over-ride the class that generates a playlist request.

The delegate should extend DvrBasePlaylistRequestFactory

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrPlaylistRequestDelegate**

PROPERTY_ENCRYPTION_INFO_DELEGATE

public static final java.lang.String **PROPERTY_ENCRYPTION_INFO_DELEGATE**

DVR Property "dvrPlaylistEncryptionInfoDelegate": used to over-ride the encryption info on the playback side.

The specified delegate should extend com.wowza.wms.dvr.DvrBaseEncryptionInfoDelegate

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrPlaylistEncryptionInfoDelegate**

PROPERTY_SANJOSE_PLAYLIST_MIMETYPE

public static final java.lang.String **PROPERTY_SANJOSE_PLAYLIST_MIMETYPE**

DVR Property "dvrSanJosePlaylistMimeType": used to over-ride the mime type for DVR San Jose F4m playlists.

Default value is "video/mp4"

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSanJosePlaylistMimeType**

PROPERTY_SANJOSE_PLAYLIST_DELIVERYTYPE

public static final java.lang.String **PROPERTY_SANJOSE_PLAYLIST_DELIVERYTYPE**

DVR Property "dvrSanJosePlaylistDeliveryType": used to over-ride the mime type for DVR San Jose F4m playlists.

Default value is "streaming"

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSanJosePlaylistDeliveryType**

PROPERTY_SANJOSE_PLAYLIST_VERSION

public static final java.lang.String **PROPERTY_SANJOSE_PLAYLIST_VERSION**

DVR Property `"dvrSanJosePlaylistVersion"`: used to over-ride the version of the San Jose f4m playlist.

Default value is "2.0". Valid values are "1.0" and "2.0".

Constant value: **dvrSanJosePlaylistVersion**

See Also:
> SANJOSE_F4M_VERSION_1_0
> Add this to Application/DVR/Properties section of Application.xml

PROPERTY_SANJOSE_PLAYLIST_RECORDED_STREAMTYPE

`public static final java.lang.String` **PROPERTY_SANJOSE_PLAYLIST_RECORDED_STREAMTYPE**

DVR Property `"dvrSanJosePlaylistRecordedStreamType"`: used to over-ride the stream type for non-live (recorded) DVR in San Jose f4m playlists.

Default value is #SANJOSE_F4M_STREAMTYPE_RECORDED. *
Constant value: **dvrSanJosePlaylistRecordedStreamType**

See Also:
> SANJOSE_F4M_STREAMTYPE_DVR
> SANJOSE_F4M_STREAMTYPE_LIVE
> SANJOSE_F4M_STREAMTYPE_LIVEORRECORDED

Add this to Application/DVR/Properties section of Application.xml

PROPERTY_SANJOSE_PLAYLIST_LIVE_STREAMTYPE

`public static final java.lang.String` **PROPERTY_SANJOSE_PLAYLIST_LIVE_STREAMTYPE**

DVR Property `"dvrSanJosePlaylistLiveStreamType"`: used to over-ride the stream type for live DVR in San Jose f4m playlists.

Default value is #SANJOSE_F4M_STREAMTYPE_DVR.
Constant value: **dvrSanJosePlaylistLiveStreamType**

See Also:
> SANJOSE_F4M_STREAMTYPE_DVR
> SANJOSE_F4M_STREAMTYPE_LIVE
> SANJOSE_F4M_STREAMTYPE_LIVEORRECORDED

Add this to Application/DVR/Properties section of Application.xml

SANJOSE_F4M_STREAMTYPE_DVR

`public static final java.lang.String` **SANJOSE_F4M_STREAMTYPE_DVR**

Constant for San Jose stream type "dvr".
Constant value: **dvr**

SANJOSE_F4M_STREAMTYPE_RECORDED

`public static final java.lang.String` **SANJOSE_F4M_STREAMTYPE_RECORDED**

Constant for San Jose stream type "recorded".
Constant value: **recorded**

SANJOSE_F4M_STREAMTYPE_LIVE

`public static final java.lang.String` **`SANJOSE_F4M_STREAMTYPE_LIVE`**

Constant for San Jose stream type "live".
Constant value: **`live`**

SANJOSE_F4M_STREAMTYPE_LIVEORRECORDED

`public static final java.lang.String` **`SANJOSE_F4M_STREAMTYPE_LIVEORRECORDED`**

Constant for San Jose stream type "liveOrRecorded".
Constant value: **`liveOrRecorded`**

SANJOSE_F4M_VERSION_1_0

`public static final java.lang.String` **`SANJOSE_F4M_VERSION_1_0`**

Constant for San Jose f4m version "1.0".
Constant value: **`1.0`**

SANJOSE_F4M_VERSION_2_0

`public static final java.lang.String` **`SANJOSE_F4M_VERSION_2_0`**

Constant for San Jose f4m version "2.0".
Constant value: **`2.0`**

SANJOSE_F4M_STREAMINGTYPE_STREAMING

`public static final java.lang.String` **`SANJOSE_F4M_STREAMINGTYPE_STREAMING`**

Constant for San Jose streaming type "streaming"
Constant value: **`streaming`**

MIMETYPE_VIDEO_MP4

`public static final java.lang.String` **`MIMETYPE_VIDEO_MP4`**

Constant for mime type "video/mp4"
Constant value: **`video/mp4`**

PROPERTY_SANJOSE_ABST_TIMESCALE

`public static final java.lang.String` **`PROPERTY_SANJOSE_ABST_TIMESCALE`**

DVR Property `"dvrSanJosePlaylistAbstTimescale"`: used to over-ride the time-scale for abst files.

Default value is #SANJOSE_ABST_DEFAULT_TIMESCALE (1000), which means milliseconds.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **`dvrSanJosePlaylistAbstTimescale`**

PROPERTY_SANJOSE_ABST_DURATION_TOLERANCE

`public static final java.lang.String` **`PROPERTY_SANJOSE_ABST_DURATION_TOLERANCE`**

DVR Property "dvrSanJosePlaylistAbstDurationEqualityTolerance": used to over-ride the tolerance when determining equal chunks lengths.

Default value is #SANJOSE_ABST_DEFAULT_DURATION_EQUALITY_TOLERANCE (50), which means 50 milliseconds.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSanJosePlaylistAbstDurationTolerance**

DEFAULT_PROPERTY_SANJOSE_ABST_TIMESCALE

public static final int **DEFAULT_PROPERTY_SANJOSE_ABST_TIMESCALE**

Default value for property "dvrSanJosePlaylistAbstTimescale" #see PROPERTY_SANJOSE_ABST_TIMESCALE
Constant value: **1000**

DEFAULT_PROPERTY_SANJOSE_ABST_DURATION_TOLERANCE

public static final int **DEFAULT_PROPERTY_SANJOSE_ABST_DURATION_TOLERANCE**

Default value for property "dvrSanJosePlaylistAbstDurationTolerance" #see PROPERTY_SANJOSE_ABST_DURATION_TOLERANCE
Constant value: **50**

PROPERTY_CUPERTINO_PLAYLIST_FORCE_LIVE

public static final java.lang.String **PROPERTY_CUPERTINO_PLAYLIST_FORCE_LIVE**

DVR Property "dvrCupertinoPlaylistForceLive": used to override playlist request delegate logic that determines if playlist is live.

Default value is false

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrCupertinoPlaylistForceLive**

PROPERTY_CUPERTINO_PLAYLIST_FORCE_NONLIVE

public static final java.lang.String **PROPERTY_CUPERTINO_PLAYLIST_FORCE_NONLIVE**

DVR Property "dvrCupertinoPlaylistForceLive": used to override playlist request delegate logic that determines if playlist is live versus non-live.

Default value is false

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrCupertinoPlaylistForceNonLive**

PROPERTY_CUPERTINO_PLAYLIST_USE_GZIP

public static final java.lang.String **PROPERTY_CUPERTINO_PLAYLIST_USE_GZIP**

DVR Property "dvrCupertinoPlaylistUseGzip": used to force Cupertino playlist to use gzip if it is accepted

Default value is true

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrCupertinoPlaylistUseGzip**

PROPERTY_CUPERTINO_PLAYLIST_GZIP_THRESHOLD

public static final java.lang.String **PROPERTY_CUPERTINO_PLAYLIST_GZIP_THRESHOLD**

DVR Property "dvrCupertinoPlaylistGzipThreshold": when playlist is larger than this number of bytes, and gzip is enabled and accepted, the playlist will be compressed

Default value is DEFAULT_CUPERTINO_PLAYLIST_GZIP_THRESHOLD

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrCupertinoPlaylistGzipThreshold**

DEFAULT_CUPERTINO_PLAYLIST_GZIP_THRESHOLD

`public static final int` **DEFAULT_CUPERTINO_PLAYLIST_GZIP_THRESHOLD**

Default value for property "dvrCupertinoPlaylistGzipThreshold" #see
PROPERTY_CUPERTINO_PLAYLIST_GZIP_THRESHOLD
Constant value: **4000**

PROPERTY_CUPERTINO_ON_CHUNK_START_RESET_COUNTER

`public static final java.lang.String` **PROPERTY_CUPERTINO_ON_CHUNK_START_RESET_COUNTER**

DVR Property "dvrCupertinoOnChunkStartResetCounter": when a new chunk starts, reset internal tsPacketizer counters

Default value is false

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrCupertinoOnChunkStartResetCounter**

PROPERTY_CUPERTINO_PLAYLIST_ALLOW_CACHING

`public static final java.lang.String` **PROPERTY_CUPERTINO_PLAYLIST_ALLOW_CACHING**

DVR Property "dvrCupertinoPlaylistAllowCaching": used to force Cupertino playlist to set #EXT-X-ALLOW-CACHE: value

Default value is false

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrCupertinoPlaylistAllowCaching**

PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_SEEK

`public static final java.lang.String` **PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_SEEK**

DVR Property "dvrSmoothManifestLiveCanSeek": used to determine is CanSeek is enabled in smooth Manifest.

Default value is #DEFAULT_PROPERTY_SMOOTH_LIVE_CAN_SEEK, which is set to true.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestLiveCanSeek**

DEFAULT_PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_SEEK

`public static final boolean` **DEFAULT_PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_SEEK**

Constant value: **true**

PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_PAUSE

`public static final java.lang.String` **PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_PAUSE**

DVR Property "dvrSmoothManifestLiveCanPause": used to determine is CanPause is enabled in smooth Manifest.

Default value is #DEFAULT_PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_PAUSE, which is set to true.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestLiveCanPause**

DEFAULT_PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_PAUSE

public static final boolean **DEFAULT_PROPERTY_SMOOTH_MANIFEST_LIVE_CAN_PAUSE**

Constant value: **true**

PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_SEEK

public static final java.lang.String **PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_SEEK**

DVR Property "dvrSmoothManifestRecordedCanSeek": used to determine is CanSeek is enabled in smooth Manifest.

Default value is #DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_SEEK, which is set to true.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestRecordedCanSeek**

DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_SEEK

public static final boolean **DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_SEEK**

Constant value: **true**

PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_PAUSE

public static final java.lang.String **PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_PAUSE**

DVR Property "dvrSmoothManifestRecordedCanPause": used to determine is CanPause is enabled in smooth Manifest.

Default value is #DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_PAUSE, which is set to true.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestRecordedCanPause**

DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_PAUSE

public static final boolean **DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_CAN_PAUSE**

Constant value: **true**

PROPERTY_SMOOTH_MANIFEST_RECORDED_SPECIFY_DURATION

public static final java.lang.String
PROPERTY_SMOOTH_MANIFEST_RECORDED_SPECIFY_DURATION

DVR Property "dvrSmoothManifestRecordedSpecifyDuration": used to determine if duration is specified. If not duration of zero is shown.

Default value is #DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_SPECIFY_DURATION, which is set to true.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestRecordedSpecifyDuration**

DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_SPECIFY_DURATION

`public static final boolean **DEFAULT_PROPERTY_SMOOTH_MANIFEST_RECORDED_SPECIFY_DURATION**`

Constant value: **true**

PROPERTY_SMOOTH_MANIFEST_MAJOR_VERSION

`public static final java.lang.String **PROPERTY_SMOOTH_MANIFEST_MAJOR_VERSION**`

DVR Property `"dvrSmoothManifestMajorVersion"`: used to determine Smooth manifest major version

Default value is #DEFAULT_PROPERTY_SMOOTH_MANIFEST_MAJOR_VERSION.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestMajorVersion**

DEFAULT_PROPERTY_SMOOTH_MANIFEST_MAJOR_VERSION

`public static final int **DEFAULT_PROPERTY_SMOOTH_MANIFEST_MAJOR_VERSION**`

Constant value: **2**

PROPERTY_SMOOTH_MANIFEST_MINOR_VERSION

`public static final java.lang.String **PROPERTY_SMOOTH_MANIFEST_MINOR_VERSION**`

DVR Property `"dvrSmoothManifestMinorVersion"`: used to determine Smooth manifest major version

Default value is #DEFAULT_PROPERTY_SMOOTH_MANIFEST_MINOR_VERSION.

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestMinorVersion**

DEFAULT_PROPERTY_SMOOTH_MANIFEST_MINOR_VERSION

`public static final int **DEFAULT_PROPERTY_SMOOTH_MANIFEST_MINOR_VERSION**`

Constant value: **1**

PROPERTY_SMOOTH_MANIFEST_VERBOSE_DURATION

`public static final java.lang.String **PROPERTY_SMOOTH_MANIFEST_VERBOSE_DURATION**`

DVR Property `"dvrSmoothManifestVerboseDuration"`: used to force Smooth Manifest to include durations for each record

Default value is false

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestVerboseDuration**

PROPERTY_SMOOTH_MANIFEST_H264_CODEC

`public static final java.lang.String **PROPERTY_SMOOTH_MANIFEST_H264_CODEC**`

DVR Property `"dvrSmoothManifestH264Codec"`: used to force Smooth Manifest to use this as its FourCC H264 codec info.

Default value is set by Smooth Streaming

Add this to Application/DVR/Properties section of Application.xml
Constant value: **dvrSmoothManifestH264Codec**

com.wowza.wms.dvr
Class IDvrConstants.DvrTimeScale

```
java.lang.Object
    |
    +-java.lang.Enum
        |
        +-com.wowza.wms.dvr.IDvrConstants.DvrTimeScale
```

All Implemented Interfaces:
> java.io.Serializable, Comparable

---

public static final class **IDvrConstants.DvrTimeScale**
extends Enum

Field Summary

public static final	[DVR_TIME](#)
public static final	[PACKET_TIME](#)
public static final	[UTC_TIME](#)

Method Summary

static [IDvrConstants.DvrTimeScale](#)	[valueOf](#)(String name)
static [IDvrConstants.DvrTimeScale[]](#)	[values](#)()

Methods inherited from class `java.lang.Enum`

clone, compareTo, equals, getDeclaringClass, hashCode, name, ordinal, toString, valueOf

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `java.lang.Comparable`

compareTo

Fields

DVR_TIME

public static final com.wowza.wms.dvr.IDvrConstants.DvrTimeScale **DVR_TIME**

PACKET_TIME

public static final com.wowza.wms.dvr.IDvrConstants.DvrTimeScale **PACKET_TIME**

UTC_TIME

public static final com.wowza.wms.dvr.IDvrConstants.DvrTimeScale **UTC_TIME**

Methods

values

public final static [IDvrConstants.DvrTimeScale[]](IDvrConstants.DvrTimeScale[]) **values**()

valueOf

public static IDvrConstants.DvrTimeScale **valueOf**(String name)

com.wowza.wms.dvr
Interface IDvrEncryptionInfo

public interface **IDvrEncryptionInfo**
extends Cloneable

Interface for persisting encryption information for DVR.

Field Summary

public static final	**ENCRYPTION_TYPE_CUPERTINO** Cupertino AES encryption type. Value: **1**
public static final	**ENCRYPTION_TYPE_MPEGDASH** MPEGDash encryption type. Value: **3**
public static final	**ENCRYPTION_TYPE_PLAYREADY** Playready encryption type. Value: **2**

Method Summary

Object	**clone**()
int	**getEncryptionType**() Serialize encryption info.
int	**getSerializeSize**() Return number of bytes required to serialize this encryption info.
byte[]	**serialize**() Serialize the encryption info, returning a byte buffer containing the serialized data.
int	**serialize**(byte[] buffer, int pos) Serialize the encryption info into buffer starting at position 'pos'.

Fields

ENCRYPTION_TYPE_CUPERTINO

public static final int **ENCRYPTION_TYPE_CUPERTINO**

Cupertino AES encryption type.
Constant value: **1**

ENCRYPTION_TYPE_PLAYREADY

public static final int **ENCRYPTION_TYPE_PLAYREADY**

Playready encryption type.

Constant value: **2**

ENCRYPTION_TYPE_MPEGDASH

`public static final int ENCRYPTION_TYPE_MPEGDASH`

MPEGDash encryption type.
Constant value: **3**

Methods

getSerializeSize

`public int getSerializeSize()`

Return number of bytes required to serialize this encryption info.

Returns:
number of bytes to serialize.

getEncryptionType

`public int getEncryptionType()`

Serialize encryption info.

The encryption should consist of the following:

- version (1 byte)
- encryption type (1 byte)
- length of 'blob' (2 bytes)
- byte blob (n bytes)

Returns:
encryption type (constants defined in this class)

serialize

`public int serialize(byte[] buffer,
          int pos)`

Serialize the encryption info into buffer starting at position 'pos'.

Parameters:
`buffer` - buffer to serialize to
`pos` - position to start serializing

Returns:
new position into buffer

serialize

`public byte[] serialize()`

Serialize the encryption info, returning a byte buffer containing the serialized data.

Returns:

byte buffer of serialized data

clone

```
public Object clone()
  throws CloneNotSupportedException
```

clone

```
public Object clone()
  throws CloneNotSupportedException
```

com.wowza.wms.dvr
Interface IDvrManifest

public interface **IDvrManifest**
extends

Interface for a DVR Store manifest. A DVR manifest collects type-specific manifest info, including:

- Audio manifest
- Video manifest
- data manifest
- time map manifest, to map DVR, packet and real time
- codec manifest to track codec information
- onMetadata manifest

The difference between retrieving 'recorded entries' and 'live entries' is an important one. Recorded Entries means every current manifest entry. Live Entries refers to a subset of these because a playlist will not include the very last entries, as some chunks must be available for buffering.

Field Summary

public static final	CODEC_TYPE Constant for codec manifest type. Value: **999**
public static final	MANIFEST_TAGNAME_CAN_PLAY Value: **CanPlay**
public static final	MANIFEST_TAGNAME_CAN_RECORD Value: **CanRecord**
public static final	MANIFEST_TAGNAME_CHUNK_GROUPING Value: **ChunkGrouping**
public static final	MANIFEST_TAGNAME_CURRENT_TIME Value: **CurrentTime**
public static final	MANIFEST_TAGNAME_HAS_ENCRYPTION Value: **HasEncryption**
public static final	MANIFEST_TAGNAME_PURGE_TIME Value: **PurgeTime**
public static final	ON_METADATA_TYPE Constant for 'onMetadata' manifest type. Value: **0**
public static final	TIME_MAP_TYPE Constant for time map manifest type. Value: **998**

Method Summary

void	**addToManifest**(java.util.List entries) Add manifest entries to the manifest
void	**deserialize**(byte[] bytes) Deserialize the manifest.
long	**expandEndTime**(int type, long dvrEndTime)
long	**expandStartTime**(int type, long dvrStartTime)
long	**getClosestStartTime**(int type, long dvrTime) Given a dvrTime and a manifest type, find the closest chunk starting time.
DvrManifestCodecEntry	**getCodecEntryForTime**(long dvrTime) Return most recent codec entry for a given DVR time.
long	**getDvrTime**(int type)
DvrManifestEntryRangeGroup	**getEntriesToPurge**(long purgeTime) Given a purge time, return a group of manifest ranges to purge.
DvrManifestEntry	**getFirstEntry**(int type) Given manifest type, get the first playlist manifest entry.
DvrManifestEntry	**getLastLiveEntry**(int type) Given manifest type, get the last playlist manifest entry.
DvrManifestEntry	**getLastRecordedEntry**(int type) Given manifest type and DVR time, get last entry.
int	**getLastRecordedIndex**(int type) Return last index of DVR entry for given type.
long	**getLiveDuration**(int type) Given manifest type, return DVR live duration in seconds
java.util.List	**getLiveEntries**(int type, long dvrStart) Given manifest type and DVR time, get a list of the live entries.
java.util.List	**getLiveEntriesWithLimit**(int type, long dvrTime, int limit) Given manifest type and DVR time, get a list of the live entries limiting number of returned items.
DvrChannelManifest	**getManifestChannel**(int type) For a given manifest type, return the channel manifest.
DvrManifestOnMetadataEntry	**getMetadataEntryForTime**(long dvrTime) Return most recent metadataEntry for a given DVR time.
int	**getNextChunkIndex**()
int	**getNextCodecIndex**()
int	**getNextMetadataIndex**()

int	**getNextTimeMapIndex**()
int	**getNumberLiveEntries**(int type, long dvrStart) Given manifest type and DVR time, get the number of live entries at the given time.
int	**getNumberLiveEntries**(int type, long dvrStart, long dvrEnd) Given manifest type and DVR time, get the number of live entries at the given time.
int	**getNumberRecordedEntries**(int type, long dvrStart) Given manifest type and DVR time, get the number of entries at the given time.
int	**getNumberRecordedEntries**(int type, long dvrStart, long dvrEnd) Given manifest type and DVR time, get the number of live entries at the given time.
long	**getRecordedDuration**(int type) Given manifest type, return DVR recorded duration in seconds
java.util.List	**getRecordedEntries**(int type) Get a copy of all manifest entries of a given type.
java.util.List	**getRecordedEntries**(int type, long dvrStartTime) Given manifest type and DVR time, get a list of recorded entries.
java.util.List	**getRecordedEntries**(int type, long dvrStartTime, long dvrEndTime) Given manifest type and DVR time, get a list of recorded entries.
java.util.List	**getRecordedEntriesInRange**(**DvrManifestEntryRange** range) Given a DvrManifestEntryRange, get a list of recorded entries in this range.
java.util.Map	**getRecordedEntriesMap**(int type) Get a copy of all manifest entries of a given type as a Map of indices.
java.util.List	**getRecordedEntriesWithLimit**(int type, long dvrTime, int limit) Given manifest type and DVR time, get a list of recorded entries limiting number of returned items.
DvrManifestEntry	**getRecordedEntryByIndex**(int type, int index) Get the manifest entry given a manifest type and an index.
DvrManifestEntry	**getRecordedEntryByTimeKey**(int type, long dvrTime) Get the manifest entry given a manifest type and a time (in DVR units)
IDvrTimeMap	**getTimeMap**()
boolean	**hasAudio**() Does manifest contain audio.
boolean	**hasCodecData**() Does manifest contain codec data.
boolean	**hasData**() Does manifest contain data.
boolean	**hasOnMetadata**() Does manifest contain onMetadata.
boolean	**hasTimeMapData**() Does manifest contain time map info.

boolean	**hasVideo**()	
	Does manifest contain video.	
void	**importManifest**(**IDvrManifest** manifest, boolean persist)	
	Import the specified manifest into this manifest	
void	**initialize**()	
	Initialize the manifest.	
java.util.List	**purgeEntries**(**DvrManifestEntryRangeGroup** ranges)	
	Given a group of ranges, purge the manifest entries.	
void	**refreshManifest**()	
	Refresh the mainfest.	
byte[]	**serialize**(boolean ignoreEntries)	
	Serialize the manifest.	

Fields

ON_METADATA_TYPE

```
public static final int ON_METADATA_TYPE
```

Constant for 'onMetadata' manifest type.
Constant value: **0**

CODEC_TYPE

```
public static final int CODEC_TYPE
```

Constant for codec manifest type.
Constant value: **999**

TIME_MAP_TYPE

```
public static final int TIME_MAP_TYPE
```

Constant for time map manifest type.
Constant value: **998**

MANIFEST_TAGNAME_CAN_RECORD

```
public static final java.lang.String MANIFEST_TAGNAME_CAN_RECORD
```

Constant value: **CanRecord**

MANIFEST_TAGNAME_CAN_PLAY

```
public static final java.lang.String MANIFEST_TAGNAME_CAN_PLAY
```

Constant value: **CanPlay**

MANIFEST_TAGNAME_HAS_ENCRYPTION

`public static final java.lang.String` **`MANIFEST_TAGNAME_HAS_ENCRYPTION`**

Constant value: **`HasEncryption`**

MANIFEST_TAGNAME_CHUNK_GROUPING

`public static final java.lang.String` **`MANIFEST_TAGNAME_CHUNK_GROUPING`**

Constant value: **`ChunkGrouping`**

MANIFEST_TAGNAME_PURGE_TIME

`public static final java.lang.String` **`MANIFEST_TAGNAME_PURGE_TIME`**

Constant value: **`PurgeTime`**

MANIFEST_TAGNAME_CURRENT_TIME

`public static final java.lang.String` **`MANIFEST_TAGNAME_CURRENT_TIME`**

Constant value: **`CurrentTime`**

Methods

initialize

`public void` **`initialize`**`()`

Initialize the manifest. Called after the previous storage has been loaded but before any chunks are added.

refreshManifest

`public void` **`refreshManifest`**`()`

Refresh the mainfest.

addToManifest

`public void` **`addToManifest`**`(java.util.List entries)`

Add manifest entries to the manifest

Parameters:

    `entries` - list of entries.

getRecordedEntries

`public java.util.List` **`getRecordedEntries`**`(int type)`

Get a copy of all manifest entries of a given type. Valid types include: IVHost.CONTENTTYPE_AUDIO, IVHost.CONTENTTYPE_VIDEO, IVHost.CONTENTTYPE_DATA, ON_METADATA_TYPE, CODEC_TYPE, or TIME_MAP_TYPE

Parameters:

type - The manifest type.

Returns:
list of entries

getRecordedEntriesMap

`public java.util.Map` **getRecordedEntriesMap**`(int type)`

Get a copy of all manifest entries of a given type as a Map of indices. Valid types include: `IVHost.CONTENTTYPE_AUDIO`, `IVHost.CONTENTTYPE_VIDEO`, `IVHost.CONTENTTYPE_DATA`, `ON_METADATA_TYPE`, `CODEC_TYPE`, or `TIME_MAP_TYPE`

Parameters:
type - the manifest type.

Returns:
map of entries

getRecordedEntriesInRange

`public java.util.List` **getRecordedEntriesInRange**`(DvrManifestEntryRange range)`

Given a DvrManifestEntryRange, get a list of recorded entries in this range.

Parameters:
range - a range (which consists of a manifest type and a start and end index)

Returns:
list of entries

getLastRecordedEntry

`public DvrManifestEntry` **getLastRecordedEntry**`(int type)`

Given manifest type and DVR time, get last entry.

"Recorded Entries" includes those entries after the end of the playlist.

Parameters:
type - the manifest type.

Returns:
manifest entry

getRecordedEntryByTimeKey

`public DvrManifestEntry` **getRecordedEntryByTimeKey**`(int type,`
`    long dvrTime)`

Get the manifest entry given a manifest type and a time (in DVR units)

Parameters:
type - the manifest type.
dvrTime - DVR time

Returns:
manifest entry

getRecordedEntryByIndex

```
public DvrManifestEntry getRecordedEntryByIndex(int type,
        int index)
```

Get the manifest entry given a manifest type and an index.

Parameters:
type - the manifest type.
index - the index into the manifest

Returns:
manifest entry

getEntriesToPurge

```
public DvrManifestEntryRangeGroup getEntriesToPurge(long purgeTime)
```

Given a purge time, return a group of manifest ranges to purge. This method ensures that the purge entries are aligned by index so that audio and video always remain index aligned.

Parameters:
purgeTime - The DVR time to purge

Returns:
a group of ranges.

purgeEntries

```
public java.util.List purgeEntries(DvrManifestEntryRangeGroup ranges)
```

Given a group of ranges, purge the manifest entries.

Parameters:
ranges - Group of ranges

Returns:
A list of the purged items.

getMetadataEntryForTime

```
public DvrManifestOnMetadataEntry getMetadataEntryForTime(long dvrTime)
```

Return most recent metadataEntry for a given DVR time. The manifest for metadata entries is sparse-- it only stores items periodically. So for a given time t, the returned entry will exist at or before time t.

Parameters:
dvrTime - DVR time

Returns:
onMetadata Entry

getCodecEntryForTime

```
public DvrManifestCodecEntry getCodecEntryForTime(long dvrTime)
```

Return most recent codec entry for a given DVR time. The manifest for codec entries is sparse-- it only stores items periodically. So for a given time t, the returned entry will exist at or before time t.

Parameters:
>   `dvrTime` - DVR time

Returns:
>   Codec Entry

---

getNumberLiveEntries

```
public int getNumberLiveEntries(int type,
        long dvrStart)
```

Given manifest type and DVR time, get the number of live entries at the given time.

"Live Entries" means that a couple of the last entries will not be included as they are too close to the live point to be part of the playlist.

Parameters:
>   `type` - the manifest type.
>   `dvrStart` - DVR time

Returns:
>   number of entries.

---

getNumberLiveEntries

```
public int getNumberLiveEntries(int type,
        long dvrStart,
        long dvrEnd)
```

Given manifest type and DVR time, get the number of live entries at the given time.

"Live Entries" means that a couple of the last entries will not be included as they are too close to the live point to be part of the playlist.

Parameters:
>   `type` - the manifest type.
>   `dvrStart` - DVR time
>   `dvrEnd` - end DVR time

Returns:
>   number of entries.

---

getNumberRecordedEntries

```
public int getNumberRecordedEntries(int type,
        long dvrStart)
```

Given manifest type and DVR time, get the number of entries at the given time.

"Recorded Entries" includes those entries after the end of the playlist.

Parameters:
>   `type` - the manifest type.
>   `dvrStart` - DVR time

Returns:
>   number of entries.

---

getNumberRecordedEntries

```
public int getNumberRecordedEntries(int type,
         long dvrStart,
         long dvrEnd)
```

Given manifest type and DVR time, get the number of live entries at the given time.

"Recorded Entries" includes those entries after the end of the playlist.

Parameters:
type - the manifest type.
dvrStart - DVR time
dvrEnd - end DVR time

Returns:
number of entries.

getFirstEntry

```
public DvrManifestEntry getFirstEntry(int type)
```

Given manifest type, get the first playlist manifest entry.

Parameters:
type - the manifest type.

Returns:
manifest entry

getLastLiveEntry

```
public DvrManifestEntry getLastLiveEntry(int type)
```

Given manifest type, get the last playlist manifest entry.

"Live Entries" means that a couple of the last entries will not be included as they are too close to the live point to be part of the playlist.

Parameters:
type - the manifest type.

Returns:
manifest entry

getLiveEntries

```
public java.util.List getLiveEntries(int type,
         long dvrStart)
```

Given manifest type and DVR time, get a list of the live entries.

"Live Entries" means that a couple of the last entries will not be included as they are too close to the live point to be part of the playlist.

Parameters:
type - the manifest type.
dvrStart - DVR time

Returns:

list of entries.

getLiveEntriesWithLimit

```
public java.util.List getLiveEntriesWithLimit(int type,
        long dvrTime,
        int limit)
```

Given manifest type and DVR time, get a list of the live entries limiting number of returned items.

"Live Entries" means that a couple of the last entries will not be included as they are too close to the live point to be part of the playlist.

Parameters:
type - the manifest type.
dvrTime - DVR time
limit - maximum number of returned items

Returns:
list of entries.

getRecordedEntriesWithLimit

```
public java.util.List getRecordedEntriesWithLimit(int type,
        long dvrTime,
        int limit)
```

Given manifest type and DVR time, get a list of recorded entries limiting number of returned items.

"Recorded Entries" includes those entries after the end of the playlist.

Parameters:
type - the manifest type.
dvrTime - DVR time
limit - maximum number of returned items

Returns:
list of entries.

getRecordedEntries

```
public java.util.List getRecordedEntries(int type,
        long dvrStartTime)
```

Given manifest type and DVR time, get a list of recorded entries.

"Recorded Entries" includes those entries after the end of the playlist.

Parameters:
type - the manifest type.
dvrStartTime - DVR time

Returns:
list of entries.

getRecordedEntries

```
public java.util.List getRecordedEntries(int type,
        long dvrStartTime,
        long dvrEndTime)
```

Given manifest type and DVR time, get a list of recorded entries.

"Recorded Entries" includes those entries after the end of the playlist.

Parameters:
>   `type` - the manifest type.
>   `dvrStartTime` - DVR time
>   `dvrEndTime` - DVR end time

Returns:
>   list of entries.

---

getRecordedDuration

`public long` **`getRecordedDuration`**`(int type)`

Given manifest type, return DVR recorded duration in seconds

"Recorded Entries" includes those entries after the end of the "live" playlist.

Parameters:
>   `type` - the manifest type.

Returns:
>   duration in seconds

---

getLiveDuration

`public long` **`getLiveDuration`**`(int type)`

Given manifest type, return DVR live duration in seconds

"Recorded Entries" includes those entries after the end of the "live" playlist.

Parameters:
>   `type` - the manifest type.

Returns:
>   duration in seconds

---

getDvrTime

`public long` **`getDvrTime`**`(int type)`

---

getLastRecordedIndex

`public int` **`getLastRecordedIndex`**`(int type)`

Return last index of DVR entry for given type.

Parameters:
>   `type`

Returns:
>   index, or -1 if type does not exist

---

getNextChunkIndex

`public int `**`getNextChunkIndex`**`()`

getNextMetadataIndex

`public int `**`getNextMetadataIndex`**`()`

getNextCodecIndex

`public int `**`getNextCodecIndex`**`()`

getNextTimeMapIndex

`public int `**`getNextTimeMapIndex`**`()`

getManifestChannel

`public DvrChannelManifest `**`getManifestChannel`**`(int type)`

For a given manifest type, return the channel manifest.

Parameters:
type

Returns:
channel manifest

importManifest

`public void `**`importManifest`**`(`IDvrManifest` manifest,`
`        boolean persist)`

Import the specified manifest into this manifest

Parameters:
manifest
persist

getClosestStartTime

`public long `**`getClosestStartTime`**`(int type,`
`        long dvrTime)`

Given a dvrTime and a manifest type, find the closest chunk starting time.

Parameters:
type - manifest type
dvrTime - DVR time

Returns:

time that corresponds to the closest start time of the given manifest type

expandEndTime

```
public long expandEndTime(int type,
         long dvrEndTime)
```

expandStartTime

```
public long expandStartTime(int type,
         long dvrStartTime)
```

hasVideo

```
public boolean hasVideo()
```

> Does manifest contain video.

> **Returns:**
> > true if it contains video.

hasAudio

```
public boolean hasAudio()
```

> Does manifest contain audio.

> **Returns:**
> > true if it contains audio.

hasData

```
public boolean hasData()
```

> Does manifest contain data.

> **Returns:**
> > true if it contains data.

hasOnMetadata

```
public boolean hasOnMetadata()
```

> Does manifest contain onMetadata.

> **Returns:**
> > true if it contains onMetadata.

hasCodecData

```
public boolean hasCodecData()
```

> Does manifest contain codec data.

> **Returns:**

true if it contains codec data

hasTimeMapData

public boolean **hasTimeMapData**()

Does manifest contain time map info.

Returns:

true if it contains time map info.

serialize

public byte[] **serialize**(boolean ignoreEntries)

Serialize the manifest.

Parameters:

ignoreEntries - If true, the individual manifest entries are not serialized.

Returns:

byte array of serialized data

deserialize

public void **deserialize**(byte[] bytes)

Deserialize the manifest. Should be called after default constructor for manifest has been called.

Parameters:

bytes - buffer of bytes to deserialize

getTimeMap

public IDvrTimeMap **getTimeMap**()

com.wowza.wms.dvr
Interface IDvrPacketConverter

public interface **IDvrPacketConverter**
extends

Interface for creating DVR chunks from a set of packets.

Method Summary

DvrChunk	createDvrAudioChunk(long dvrTime, int index, int duration, DvrPacketHolder holder) Create audio chunk from set of packets.
DvrChunk	createDvrDataChunk(long dvrTime, int index, int duration, DvrPacketHolder holder) Create data chunk from set of packets.
DvrChunk	createDvrOnMetadataChunk(long dvrTime, long pt, AMFPacket metaPacket) Create onMetadata chunk from set of packets.
DvrChunk	createDvrVideoChunk(long dvrTime, int index, int duration, DvrPacketHolder holder) Create video chunk from set of packets.

Methods

createDvrAudioChunk

```
public DvrChunk createDvrAudioChunk(long dvrTime,
          int index,
          int duration,
          DvrPacketHolder holder)
```

Create audio chunk from set of packets.

Parameters:
   dvrTime - DVR start time in milliseconds
   index - index of DVR chunk
   duration - Duration in milliseconds
   holder - packet holder

Returns:
   the created chunk or null if chunk not created.

createDvrVideoChunk

```
public DvrChunk createDvrVideoChunk(long dvrTime,
          int index,
          int duration,
          DvrPacketHolder holder)
```

Create video chunk from set of packets.

Parameters:

dvrTime - DVR start time in milliseconds

index - index of DVR chunk

duration - Duration in milliseconds

holder - packet holder

Returns:

the created chunk or null if chunk not created.

createDvrDataChunk

```
public DvrChunk createDvrDataChunk(long dvrTime,
        int index,
        int duration,
        DvrPacketHolder holder)
```

Create data chunk from set of packets.

Parameters:

dvrTime - DVR start time in milliseconds

index - index of DVR chunk

duration - Duration in milliseconds

holder - packet holder

Returns:

the created chunk or null if chunk not created.

createDvrOnMetadataChunk

```
public DvrChunk createDvrOnMetadataChunk(long dvrTime,
        long pt,
        AMFPacket metaPacket)
```

Create onMetadata chunk from set of packets.

Parameters:

dvrTime - DVR start time in milliseconds

pt - Packet time

metaPacket - metadata packet

Returns:

the created chunk or null if chunk not created.

com.wowza.wms.dvr
Interface IDvrPacketWriter

public interface **IDvrPacketWriter**
extends

Interface for chunking and storing packets for DVR.

Method Summary

void	addToChunk(DvrPacketHolder holder)
boolean	canRecordAudio()
boolean	canRecordData()
boolean	canRecordVideo()
void	endChunk(long videoEndTime, long audioEndTime)
void	resetStream()
void	sendOnMetadata(long pt, AMFPacket metaPacket)
void	setCodecInfoAudio(com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio)
void	setCodecInfoVideo(com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)
void	startChunk(int streamMode, int videoCodecId, int audioCodecId, long timecode, long utcTimecode)

Methods

sendOnMetadata

```
public void sendOnMetadata(long pt,
        AMFPacket metaPacket)
```

startChunk

```
public void startChunk(int streamMode,
        int videoCodecId,
        int audioCodecId,
        long timecode,
        long utcTimecode)
```

addToChunk

```
public void addToChunk(DvrPacketHolder holder)
```

endChunk

```
public void endChunk(long videoEndTime,
        long audioEndTime)
```

setCodecInfoAudio

```
public void setCodecInfoAudio(com.wowza.wms.media.model.MediaCodecInfoAudio
codecInfoAudio)
```

setCodecInfoVideo

```
public void setCodecInfoVideo(com.wowza.wms.media.model.MediaCodecInfoVideo
codecInfoVideo)
```

resetStream

```
public void resetStream()
```

canRecordAudio

```
public boolean canRecordAudio()
```

canRecordVideo

```
public boolean canRecordVideo()
```

canRecordData

```
public boolean canRecordData()
```

com.wowza.wms.dvr
Interface IDvrPlayerAdapter

public interface **IDvrPlayerAdapter**
extends

Field Summary

public static final	[QUERY_PARAM_DVR](#) Value: **DVR**

Method Summary

int	[calcBitrate](#)([IDvrStreamStore](#) store, int type, long t)
String	[determineStreamVersion](#)([IDvrStreamManager](#) dvrMgr, String baseStreamName)
DvrPlaylistRequest	[getDvrPlaylistRequest](#)([IHTTPStreamerApplicationContext](#) appContext, [IDvrStreamStore](#) store, java.util.Map queryMap)
DvrPlaylistRequest	[getDvrPlaylistRequest](#)([IHTTPStreamerApplicationContext](#) appContext, java.util.List stores, java.util.Map queryMap)
IDvrMbrPlaylistAlignment	[getPlaylistAlignment](#)([IHTTPStreamerSession](#) httpStreamerSession)
boolean	[isPlaylistReady](#)([IDvrStreamStore](#) store, DvrPlaylistRequest playlistRequest)
boolean	[isPlaylistReady](#)(java.util.List stores, DvrPlaylistRequest dvrPlaylistRequest)

Fields

QUERY_PARAM_DVR

public static final java.lang.String **QUERY_PARAM_DVR**

Constant value: **DVR**

Methods

isPlaylistReady

public boolean **isPlaylistReady**([IDvrStreamStore](#) store,
        DvrPlaylistRequest playlistRequest)

isPlaylistReady

```
public boolean isPlaylistReady(java.util.List stores,
        DvrPlaylistRequest dvrPlaylistRequest)
```

determineStreamVersion

```
public String determineStreamVersion(IDvrStreamManager dvrMgr,
        String baseStreamName)
```

calcBitrate

```
public int calcBitrate(IDvrStreamStore store,
        int type,
        long t)
```

getDvrPlaylistRequest

```
public DvrPlaylistRequest getDvrPlaylistRequest(IHTTPStreamerApplicationContext
appContext,
        IDvrStreamStore store,
        java.util.Map queryMap)
```

getDvrPlaylistRequest

```
public DvrPlaylistRequest getDvrPlaylistRequest(IHTTPStreamerApplicationContext
appContext,
        java.util.List stores,
        java.util.Map queryMap)
```

getPlaylistAlignment

```
public IDvrMbrPlaylistAlignment getPlaylistAlignment(IHTTPStreamerSession
httpStreamerSession)
```

com.wowza.wms.dvr
Interface IDvrPurgeController

public interface **IDvrPurgeController**
extends

Interface for controlling DVR chunk purging. The purge controller is instantiated using a factory class DvrPurgeControllerFactory.
See Also:
>   com.wowza.wms.dvr.impl.DvrPurgeControllerFactory,
>   IDvrPrivateConstants.PROPERTY_PURGE_CONTROL_CLASS

Method Summary

long	[getCurrentTime](#)() Get current DVR time.
long	[getLastPurgeTime](#)() Get the DVR time when the last purge occurred.
void	[init](#)([IDvrStreamStore](#) store) Initialize the controller.
boolean	[isPurgingEnabled](#)() Is Purging enabled for this controller.
void	[setCurrentDvrTime](#)(long newDvrTime) Set the current DVR time and perform purge if necessary.

Methods

init

public void **init**([IDvrStreamStore](#) store)

> Initialize the controller.

> #### Parameters:
> > store - the DVR stream store

isPurgingEnabled

public boolean **isPurgingEnabled**()

> Is Purging enabled for this controller.

> #### Returns:
> > true if purging is active, false otherwise.

setCurrentDvrTime

public void **setCurrentDvrTime**(long newDvrTime)

> Set the current DVR time and perform purge if necessary. This method checks the DVR time against its internal rules for purging and performs the purge. It is also responsible for setting the last purge time and the next purge time.

Parameters:
>   newDvrTime

getCurrentTime

```
public long getCurrentTime()
```

> Get current DVR time. The store is responsible for setting the DVR time via setCurrentDvrTime.

> **Returns:**
>> current DVR time.

getLastPurgeTime

```
public long getLastPurgeTime()
```

> Get the DVR time when the last purge occurred.

> **Returns:**
>> DVR time of last purge

com.wowza.wms.dvr
Interface IDvrRawChunkProvider

All Subinterfaces:

> IDvrChunkMemoryCache

---

public interface **IDvrRawChunkProvider**
extends

Interface for providing raw DVR chunks based on a DVR manifest entry.

Method Summary

DvrChunk	retrieveRawChunk(DvrManifestChunkEntry entry) Given the specified manifest entry, return the raw DVR chunk.

Methods

retrieveRawChunk

public DvrChunk **retrieveRawChunk**(DvrManifestChunkEntry entry)

Given the specified manifest entry, return the raw DVR chunk.

Parameters:
> entry - The DVR manifest entry

Returns:
> the DVR chunk or null if not able to return the chunk.

com.wowza.wms.dvr
Interface IDvrRecordingListener

public interface **IDvrRecordingListener**
extends

Listener for DVR Recording events.
See Also:
> IDvrStreamManager.addDvrRecordingListener(IDvrRecordingListener),
> IDvrStreamManager.removeDvrRecordingListener(IDvrRecordingListener)

Method Summary

void	**recordingPaused**(IDvrStreamStore store) Callback when DVR moves to paused state.
void	**recordingReset**(IDvrStreamStore store) Callback when DVR gets reset.
void	**recordingResumed**(IDvrStreamStore store) Callback when DVR moves out of paused state.
void	**recordingStarted**(IDvrStreamStore store) Callback when DVR moves to recording state.
void	**recordingStopped**(IDvrStreamStore store) Callback when DVR recording stops
void	**timeReset**(IDvrStreamStore store, long oldDvrTime, long oldPacketTime, TimeMapRecord newTime) Callback when DVR time is adjusted.

Methods

recordingStarted

public void **recordingStarted**(IDvrStreamStore store)

> Callback when DVR moves to recording state.

> **Parameters:**
> > store - stream store

recordingPaused

public void **recordingPaused**(IDvrStreamStore store)

> Callback when DVR moves to paused state.

> **Parameters:**
> > store - stream store

recordingResumed

```
public void recordingResumed(IDvrStreamStore store)
```

> Callback when DVR moves out of paused state.

> ### Parameters:
> > store - stream store

recordingReset

```
public void recordingReset(IDvrStreamStore store)
```

> Callback when DVR gets reset. For example, if the incoming stream resets.

> ### Parameters:
> > store - stream store

recordingStopped

```
public void recordingStopped(IDvrStreamStore store)
```

> Callback when DVR recording stops

> ### Parameters:
> > store - stream store

timeReset

```
public void timeReset(IDvrStreamStore store,
        long oldDvrTime,
        long oldPacketTime,
        TimeMapRecord newTime)
```

> Callback when DVR time is adjusted.

> ### Parameters:
> > store - stream store
> > oldDvrTime
> > oldPacketTime - old packet time associated to oldDvrTime
> > newTime

com.wowza.wms.dvr
Interface IDvrRecordingsLoader

public interface **IDvrRecordingsLoader**
extends

Interface for loading recordings during DVR Stream Manager initialization.
See Also:
>   com.wowza.wms.dvr.impl.DvrRecordingsLoaderFactory,
>   IDvrConstants.PROPERTY_RECORDINGS_LOADER_CLASS

Method Summary

void	**init**(IDvrStreamManager dvrMgr) Initialize recordings loader
void	**loadArchivedRecordings**() Discover and load archived recording
boolean	**shouldLoadStream**(String streamName, java.util.SortedSet versions) Should the given archived streams be laoded.
boolean	**shouldLoadStreamVersion**(String streamName, Integer version, java.util.SortedSet versions) Should the given archived stream of specific version be laoded.

Methods

init

public void **init**(IDvrStreamManager dvrMgr)

>   Initialize recordings loader

> **Parameters:**
>   dvrMgr - the DVR Stream Manager

loadArchivedRecordings

public void **loadArchivedRecordings**()

>   Discover and load archived recording

shouldLoadStream

public boolean **shouldLoadStream**(String streamName,
          java.util.SortedSet versions)

>   Should the given archived streams be laoded. The method contains logic which determines if all versions of the given stream
>   Name should be loaded or not.

> **Parameters:**
>   streamName - Stream name (unversioned)
>   versions - sorted set of available versions of this stream

Returns:

      true if one or more of the streams should be laoded, false otherwise.

---

shouldLoadStreamVersion

```
public boolean shouldLoadStreamVersion(String streamName,
        Integer version,
        java.util.SortedSet versions)
```

Should the given archived stream of specific version be laoded. The method contains logic which determines if all versions of the given stream Name should be loaded or not.

Parameters:

      `streamName` - Stream name (unversioned)

      `version` - the specific version of the stream we are determining if we should laod

      `versions` - sorted set of all available versions of this stream

Returns:

      true if one or more of the streams should be laoded, false otherwise.

com.wowza.wms.dvr
Interface IDvrStoreChunkListener

public interface **IDvrStoreChunkListener**
extends

Listener for DVR Store chunk events.

Note that this listener traffic is very high.

See Also:

> IDvrStreamStore.addDvrChunkListener(IDvrStoreChunkListener),
> IDvrStreamStore.removeDvrChunkListener(IDvrStoreChunkListener)

Method Summary

void	postChunkAdded(IDvrStreamStore store) Callback after a chunk is written to DVR store
void	postChunksPurged(IDvrStreamStore store, DvrManifestEntryRangeGroup entries, java.util.List deletedEntries) Callback after DVR store performs a purge
void	preChunkAdded(IDvrStreamStore store) Callback before a chunk is written to DVR store
void	preChunksPurged(IDvrStreamStore store, DvrManifestEntryRangeGroup entries) Callback before DVR store performs a purge

Methods

preChunkAdded

public void **preChunkAdded**(IDvrStreamStore store)

> Callback before a chunk is written to DVR store

> **Parameters:**
> > store - the stream store

postChunkAdded

public void **postChunkAdded**(IDvrStreamStore store)

> Callback after a chunk is written to DVR store

> **Parameters:**
> > store - the stream store

preChunksPurged

public void **preChunksPurged**(IDvrStreamStore store,
        DvrManifestEntryRangeGroup entries)

Callback before DVR store performs a purge

> **Parameters:**
>> store - the stream store
>> entries - list of DVR chunks to be purged

---

postChunksPurged

```
public void postChunksPurged(IDvrStreamStore store,
        DvrManifestEntryRangeGroup entries,
        java.util.List deletedEntries)
```

Callback after DVR store performs a purge

> **Parameters:**
>> store - the stream store
>> entries - list of DVR chunks purged
>> deletedEntries - list of entries deleted

com.wowza.wms.dvr
Interface IDvrStoreListener

public interface **IDvrStoreListener**
extends

Listener for DVR Store lifecycle events.

See Also:
> IDvrStreamManager.addDvrStoreListener(IDvrStoreListener),
> IDvrStreamManager.removeDvrStoreListener(IDvrStoreListener)

Method Summary

void	dvrStreamStorageDeleted(IDvrStreamStore store, IDvrFileSystem fileSystem, boolean success) Callback after DVR store is deleted from disk.
void	dvrStreamStorageLoaded(IDvrStreamManager dvrMgr, IDvrStreamStore store) Callback after DVR store is loaded from disk.
void	dvrStreamStoreCreate(IDvrStreamStore store) Callback after DVR stream store is created.
void	dvrStreamStoreDestroy(IDvrStreamStore store) Callback after DVR stream store is destroyed.
void	dvrStreamStoreInit(IDvrStreamStore store) Callback after DVR stream store is initialized.

Methods

dvrStreamStoreCreate

public void **dvrStreamStoreCreate**(IDvrStreamStore store)

> Callback after DVR stream store is created.

> **Parameters:**
> > store - stream store

dvrStreamStoreInit

public void **dvrStreamStoreInit**(IDvrStreamStore store)

> Callback after DVR stream store is initialized.

> **Parameters:**
> > store - stream store

dvrStreamStoreDestroy

public void **dvrStreamStoreDestroy**(IDvrStreamStore store)

> Callback after DVR stream store is destroyed.

Parameters:
> `store` - stream store

---

dvrStreamStorageLoaded

```
public void dvrStreamStorageLoaded(IDvrStreamManager dvrMgr,
        IDvrStreamStore store)
```

Callback after DVR store is loaded from disk.

Parameters:
> `dvrMgr` - DVR Application Store Manager
> `store` - stream store

---

dvrStreamStorageDeleted

```
public void dvrStreamStorageDeleted(IDvrStreamStore store,
        IDvrFileSystem fileSystem,
        boolean success)
```

Callback after DVR store is deleted from disk.

Parameters:
> `store`
> `fileSystem` - stream store file system
> `success` - whether delete succeeded or failed

com.wowza.wms.dvr
Interface IDvrStreamManager

All Superinterfaces:
> ILiveStreamPacketizer

---

public interface **IDvrStreamManager**
extends **ILiveStreamPacketizer**

DVR Stream manager. Manages a live stream and associated DVR stores.

Method Summary

void	**addDvrRecordingListener**(IDvrRecordingListener listener) Add listener to DVR recording events.
void	**addDvrStoreListener**(IDvrStoreListener listener) Add listener to DVR store lifecycle events.
void	**addManifestEntries**(String vStreamName, java.util.List entries) Add to stream stores manifest.
void	**addRepeaterHeartBeatItem**()
boolean	**canRecord**() Is this stream able to record.
void	**deleteArchivedStore**(String vStreamName) Delete archived stream store.
String	**getArchiveStrategy**() Get the DVR archive strategy.
String	**getContextStr**() Get stream context string, useful for logging.
IDvrStreamStore	**getDefaultStreamingStore**() Get the store to be used for streaming.
String	**getDvrFileSystemClass**() Get the class used for the DVR file system.
String	**getDvrStorageDir**() Get the storage directory.
int	**getDvrStorageWindowSeconds**() Get DVR window size.
DvrBaseEncryptionInfo Delegate	**getEncryptionDelegate**() Get the encryption delegate for providing streaming side encryption info objects.
String	**getEncryptionRepeaterSharedSecret**() Get the DVR encryption shared secret.

IDvrStreamStore	getHighestVersionedStore() Return stream store that is highest known version.	
void	getInitialRepeaterItems(java.util.List items) Get initial repeater items to send to repeater receiver.	
int	getMinimumAvailableChunks() Return number of chunks that must be available to stream.	
String	getPacketizerName() Get live stream packetizer name.	
IDvrStreamStore	getRecordingStreamStore() Get current recording store	
void	getRepeaterItemsDvr(java.util.List items, long lastSeq)	
String	getStreamBaseName() Get input streamName (no version info).	
IDvrStreamStore	getStreamStore(String vStreamName) Given a stream name containing version info, return the associated stream store.	
java.util.List	getStreamStores() Get list of all stream stores known to this stream manager.	
IDvrStreamVersionHandler	getStreamVersionHandler() Get the stream version handler object.	
void	initialManifest(String vStreamName, IDvrManifest manifest)	
void	initialManifestEnd(String vStreamName)	
boolean	isRecording() Is this stream currently recording.	
boolean	isRecordingPaused() Is this stream currently paused from recording.	
IDvrStreamStore	loadArchivedStore(String vStreamName, DvrManifestHolder manifestHolder) Load archived stream store.	
void	notifyDvrStreamStorageDeleted(IDvrStreamStore store, IDvrFileSystem fileSystem, boolean success)	
void	notifyDvrStreamStoreCreate(IDvrStreamStore store)	
void	notifyDvrStreamStoreDestroy(IDvrStreamStore store)	
void	notifyDvrStreamStoreInit(IDvrStreamStore store)	
void	notifyDvrStreamStoreLoaded(IDvrStreamStore store)	
void	notifyTimeReset(IDvrStreamStore store, long oldDvrTime, long oldPacketTime, TimeMapRecord newTimeMapRecord)	

IDvrStreamStore	pauseRecording()
	Request that stream recording pause.
void	purgeManifestEntries(String vStreamName, DvrManifestEntryRangeGroup rangeGroup)
	Purge entries from store
void	removeDvrRecordingListener(IDvrRecordingListener listener)
	Remove listener to DVR recording events.
void	removeDvrStoreListener(IDvrStoreListener listener)
	Remove listener of DVR store lifecycle events.
void	resetStream()
	Reset the stream.
IDvrStreamStore	resumeRecording()
	Request that stream recording resume.
void	setDefaultStreamingStore(IDvrStreamStore store)
	Set the store to be used for streaming.
void	setRecordingStreamStore(IDvrStreamStore store)
	Set the store used for recording.
void	setStreamVersionHandler(IDvrStreamVersionHandler handler)
	Set the stream version handler object.
IDvrStreamStore	startRecording()
	Request that stream recording start.
void	stateChange(String vStreamName, DvrStreamStoreState state)
IDvrStreamStore	stopRecording()
	Request that stream recording stop.
DvrChunkStorageInfo	storeChunks(int vDuration, DvrPacketHolder vPackets, int aDuration, DvrPacketHolder aPackets, int dDuration, DvrPacketHolder dPackets)
boolean	storeOnMetadata(long pt, long utc, AMFPacket metaPacket)

Methods inherited from interface com.wowza.wms.stream.livepacketizer.ILiveStreamPacketizer

getAndSetStartStream, getApplicationInstance, getLiveStreamPacketizerId, getProperties, getRepeaterLastSeqence, handlePacket, init, isActive, isPacketizeAudio, isPacketizeData, isPacketizeVideo, isRepeaterEdge, resetStream, setLiveStreamPacketizerId, setPacketizeAudio, setPacketizeData, setPacketizeVideo, setRepeaterEdge, shutdown, startStream, touch

Methods

getContextStr

public String **getContextStr**()

    Get stream context string, useful for logging.

Returns:
> stream context string

getStreamBaseName

`public String` **`getStreamBaseName`**`()`

> Get input streamName (no version info).

> **Returns:**
>> unversioned incoming stream name

getStreamStore

`public` [`IDvrStreamStore`](#) **`getStreamStore`**`(String vStreamName)`

> Given a stream name containing version info, return the associated stream store.

> **Parameters:**
>> `vStreamName` - versioned stream name

> **Returns:**
>> store or null

getPacketizerName

`public String` **`getPacketizerName`**`()`

> Get live stream packetizer name.

> **Returns:**
>> live stream packetizer name

getStreamStores

`public java.util.List` **`getStreamStores`**`()`

> Get list of all stream stores known to this stream manager.

> **Returns:**
>> list of stream stores.

getHighestVersionedStore

`public` [`IDvrStreamStore`](#) **`getHighestVersionedStore`**`()`

> Return stream store that is highest known version.

> **Returns:**
>> stream store

getMinimumAvailableChunks

`public int` **`getMinimumAvailableChunks`**`()`

> Return number of chunks that must be available to stream.

Returns:
>   minimum available chunks

---

setRecordingStreamStore

public void **setRecordingStreamStore**(IDvrStreamStore store)

>   Set the store used for recording.

>   **Parameters:**
>>   store - stream store, or null

---

getRecordingStreamStore

public IDvrStreamStore **getRecordingStreamStore**()

>   Get current recording store

>   **Returns:**
>>   current recording store (may be null)

---

setDefaultStreamingStore

public void **setDefaultStreamingStore**(IDvrStreamStore store)

>   Set the store to be used for streaming.

>   **Parameters:**
>>   store - store to stream.

---

getDefaultStreamingStore

public IDvrStreamStore **getDefaultStreamingStore**()

>   Get the store to be used for streaming.

>   **Returns:**
>>   store to stream.

---

getDvrStorageWindowSeconds

public int **getDvrStorageWindowSeconds**()

>   Get DVR window size.

>   **Returns:**
>>   window size in seconds (0 means infinite window size)

---

getDvrStorageDir

public String **getDvrStorageDir**()

>   Get the storage directory.

>   **Returns:**
>>   storage directory

---

getDvrFileSystemClass

public String **getDvrFileSystemClass**()

>   Get the class used for the DVR file system.

>   **Returns:**
>   >   fully qualified class name

getArchiveStrategy

public String **getArchiveStrategy**()

>   Get the DVR archive strategy.

>   **Returns:**
>   >   The archive strategy

getEncryptionRepeaterSharedSecret

public String **getEncryptionRepeaterSharedSecret**()

>   Get the DVR encryption shared secret.

>   **Returns:**
>   >   shared secret.

getEncryptionDelegate

public DvrBaseEncryptionInfoDelegate **getEncryptionDelegate**()

>   Get the encryption delegate for providing streaming side encryption info objects.

>   **Returns:**
>   >   delegate

getStreamVersionHandler

public IDvrStreamVersionHandler **getStreamVersionHandler**()

>   Get the stream version handler object.

>   **Returns:**
>   >   stream version handler object.

setStreamVersionHandler

public void **setStreamVersionHandler**(IDvrStreamVersionHandler handler)

>   Set the stream version handler object. Must be called after the stream manager is created and before it is initialized.

>   **Parameters:**
>   >   handler - stream version handler object.

resetStream

public void **resetStream**()

Reset the stream.

canRecord

`public boolean **canRecord**()`

Is this stream able to record.

Returns:

true if this stream is recordable.

isRecording

`public boolean **isRecording**()`

Is this stream currently recording. If this stream is not recordable, the method returns false.

Returns:

true if has a recording stream and it is recording.

isRecordingPaused

`public boolean **isRecordingPaused**()`

Is this stream currently paused from recording. If this stream is not recording and not paused, the method returns false.

Returns:

true if has a recording is paused.

startRecording

`public IDvrStreamStore **startRecording**()`

Request that stream recording start.

Used internally. Clients should call `ILiveStreamDvrRecorder.startRecording()`. Note that this call places the DVR stream store in the recording state. If the stream store is in the paused state, DVR recording will not occur.

If there is not currently a stream store for recording, one will attempt to be created. A successful start will result in registered `IDvrRecordingListener`s to have their `IDvrRecordingListener.recordingStarted(IDvrStreamStore)` method called.

Success only occurs if the stream canRecord `IDvrStreamStore.canRecord()` and the stream is not already in the recording state.

Returns:

store if successful. null otherwise.

stopRecording

`public IDvrStreamStore **stopRecording**()`

Request that stream recording stop.

Used internally. Clients should call `ILiveStreamDvrRecorder.stopRecording()`. Note that this call places the DVR stream in the *not* recording state.

A successful stop will result in registered `IDvrRecordingListener`s to have their `IDvrRecordingListener.recordingStopped(IDvrStreamStore)` method called.

Success only occurs if the stream is already in the recording state `IDvrStreamStore.isRecording()`.

Returns:
>   store if successful. null otherwise.

pauseRecording

public `IDvrStreamStore` **pauseRecording**()

Request that stream recording pause.

Used internally. Clients should call `ILiveStreamDvrRecorder.pauseRecording()`. The stream does not have to be actively recording to be paused. For example, it could be paused before packets start flowing.

A successful pause will result in registered `IDvrRecordingListener`s to have their `IDvrRecordingListener.recordingPaused(IDvrStreamStore)` method called.

Returns:
>   store if successful. null otherwise.

resumeRecording

public `IDvrStreamStore` **resumeRecording**()

Request that stream recording resume.

Used internally. Clients should call `ILiveStreamDvrRecorder.resumeRecording()`. The stream does not have to be actively recording to be resumed. For example, it could have been paused before the stream started, and this call would move it out of the paused state.

A successful resume will result in registered `IDvrRecordingListener`s to have their `IDvrRecordingListener.recordingResumed(IDvrStreamStore)` method called.

Returns:
>   store if successful. null otherwise.

loadArchivedStore

public `IDvrStreamStore` **loadArchivedStore**(String vStreamName,
        DvrManifestHolder manifestHolder)

Load archived stream store.

Parameters:
>   `vStreamName` - versioned stream Name (e.g. myStream.0)
>   `manifestHolder` - manifest holder containing list of manifest properties

Returns:
>   stream store

deleteArchivedStore

public void **deleteArchivedStore**(String vStreamName)

Delete archived stream store.

Parameters:
>   `vStreamName` - versioned stream Name (e.g. myStream.0)

addManifestEntries

```
public void addManifestEntries(String vStreamName,
        java.util.List entries)
```

Add to stream stores manifest.

Parameters:
vStreamName - versioned stream Name (e.g. myStream.0)
entries - list of manifest entries.

purgeManifestEntries

```
public void purgeManifestEntries(String vStreamName,
        DvrManifestEntryRangeGroup rangeGroup)
```

Purge entries from store

Parameters:
vStreamName - versioned stream Name (e.g. myStream.0)
rangeGroup - set of ranges for purging

storeChunks

```
public DvrChunkStorageInfo storeChunks(int vDuration,
        DvrPacketHolder vPackets,
        int aDuration,
        DvrPacketHolder aPackets,
        int dDuration,
        DvrPacketHolder dPackets)
```

storeOnMetadata

```
public boolean storeOnMetadata(long pt,
        long utc,
        AMFPacket metaPacket)
```

addDvrStoreListener

```
public void addDvrStoreListener(IDvrStoreListener listener)
```

Add listener to DVR store lifecycle events.

Parameters:
listener - listener

removeDvrStoreListener

```
public void removeDvrStoreListener(IDvrStoreListener listener)
```

Remove listener of DVR store lifecycle events.

Parameters:
listener - listener

addDvrRecordingListener

public void **addDvrRecordingListener**(<u>IDvrRecordingListener</u> listener)

> Add listener to DVR recording events.

> **Parameters:**
>> listener - listener

removeDvrRecordingListener

public void **removeDvrRecordingListener**(<u>IDvrRecordingListener</u> listener)

> Remove listener to DVR recording events.

> **Parameters:**
>> listener - listener

notifyDvrStreamStoreCreate

public void **notifyDvrStreamStoreCreate**(<u>IDvrStreamStore</u> store)

notifyDvrStreamStoreInit

public void **notifyDvrStreamStoreInit**(<u>IDvrStreamStore</u> store)

notifyDvrStreamStoreDestroy

public void **notifyDvrStreamStoreDestroy**(<u>IDvrStreamStore</u> store)

notifyDvrStreamStoreLoaded

public void **notifyDvrStreamStoreLoaded**(<u>IDvrStreamStore</u> store)

notifyDvrStreamStorageDeleted

public void **notifyDvrStreamStorageDeleted**(<u>IDvrStreamStore</u> store,
        IDvrFileSystem fileSystem,
        boolean success)

notifyTimeReset

public void **notifyTimeReset**(<u>IDvrStreamStore</u> store,
        long oldDvrTime,
        long oldPacketTime,
        TimeMapRecord newTimeMapRecord)

getInitialRepeaterItems

`public void` **`getInitialRepeaterItems`**`(java.util.List items)`

Get initial repeater items to send to repeater receiver.

When an edge initially requests the items, instead if sending the entire manifest and all repeater items up until that point, the player sends a `DvrRepeaterHolder.REPEATER_INITIAL_MANIFEST` event followed by several `DvrRepeaterHolder.REPEATER_ADD_MANIFEST_ENTRIES` events.

This allows us to not bother sending any purged manifest entries.

Parameters:
>   items

getRepeaterItemsDvr

`public void` **`getRepeaterItemsDvr`**`(java.util.List items,`
`        long lastSeq)`

initialManifest

`public void` **`initialManifest`**`(String vStreamName,`
`        `IDvrManifest` manifest)`

initialManifestEnd

`public void` **`initialManifestEnd`**`(String vStreamName)`

stateChange

`public void` **`stateChange`**`(String vStreamName,`
`        DvrStreamStoreState state)`

addRepeaterHeartBeatItem

`public void` **`addRepeaterHeartBeatItem`**`()`

com.wowza.wms.dvr
Interface IDvrStreamStore

public interface **IDvrStreamStore**
extends

Method Summary		
void	**addDvrChunkListener**(**IDvrStoreChunkListener** listener) Add (very fine) listener for chunk events.	
void	**addManifestEntries**(java.util.List entries)	
boolean	**canPlay**() Is this store capable of playing.	
boolean	**canRecord**() Is this store capable of recording.	
IApplicationInstance	**getAppInstance**() Get associated application instance.	
IDvrChunker	**getChunker**()	
long	**getClosestStartTime**(int type, long t)	
String	**getContextStr**() Get stream context string, useful for logging.	
DvrChunk	**getDvrChunkAtTime**(int fragmentType, long t)	
DvrChunk	**getDvrChunkByIndex**(int fragmentType, int index)	
DvrChunk	**getDvrChunkNearTime**(int fragmentType, long t, long delta)	
IDvrStreamManager	**getDvrManager**() Get DVR Stream Manager	
int	**getDvrStorageWindowSeconds**() Get DVR window size.	
IDvrFileSystem	**getFileSystem**()	
IDvrManifest	**getManifest**() Get manifest	
WMSProperties	**getProperties**() Get stream store properties.	
IDvrPurgeController	**getPurgeController**() Get purge controller for stream store.	

java.util.List	getRecordedEntriesWithLimit(int fragmentType, long t, int limit)	
DvrManifestEntry	getRecordedEntryByIndex(int fragmentType, int index)	
DvrManifestEntry	getRecordedEntryByTime(int fragmentType, long t)	
String	getStreamName() Get versioned stream name.	
DvrTimeMapper	getTimeMapper() Get time mapper, which maps between DVR, real and packet time.	
boolean	hasAudio() Does this store have audio.	
boolean	hasData() Does this store have data.	
boolean	hasEncryption() Does this store contain encryption information	
boolean	hasOnMetadata() Does this store have on metadata.	
boolean	hasVideo() Does this store have video.	
void	init() Initialize DVR stream store.	
boolean	isLive() Is store currently live For an origin, isRecording() and isLive() will typically return the same result.	
boolean	isLoaded()	
boolean	isRecording() Is store currently recording.	
boolean	isRecordingPaused() Is store currently paused while recording.	
boolean	pauseRecording() Request that stream recording pause.	
void	purgeEntries(DvrManifestEntryRangeGroup rangeGroup) Purge entries from store	
void	removeDvrChunkListener(IDvrStoreChunkListener listener) Remove (very fine) listener for chunk events.	
void	reset()	
boolean	resumeRecording() Request that stream recording resume.	

void	[setCanPlay](boolean canPlay) Set the Stream Stores ability to play.
void	[setCanRecord](boolean canRecord) Set the Stream Stores ability to record.
void	[setHasEncryption](boolean hasEncryption) Set whether the store has encryption.
void	[shutdown]()
boolean	[startRecording]() Request that recording start.
boolean	[stopRecording]() Request that stream recording stop.
DvrChunkStorageInfo	[storeChunks](int vDuration, DvrPacketHolder vPackets, int aDuration, DvrPacketHolder aPackets, int dDuration, DvrPacketHolder dPackets)
boolean	[storeOnMetadata](long pt, long utc, [AMFPacket] metaPacket)

Methods

init

public void **init**()

> Initialize DVR stream store.

reset

public void **reset**()

shutdown

public void **shutdown**()

getProperties

public [WMSProperties] **getProperties**()

> Get stream store properties.

> **Returns:**
> > properties

getDvrStorageWindowSeconds

public int **getDvrStorageWindowSeconds**()

Get DVR window size. This may be set by setting the IDvrStreamStore's property IDvrConstants.PROPERTY_WINDOW_DURATION after the store is created and before it is initialized by using the IDvrStoreListener.dvrStreamStoreCreate(IDvrStreamStore)

Returns:
> window size in seconds (0 means infinite window size)

---

getStreamName

```
public String getStreamName()
```

Get versioned stream name.

Returns:
> (versioned) stream name

---

getContextStr

```
public String getContextStr()
```

Get stream context string, useful for logging.

Returns:
> stream context string

---

getDvrManager

```
public IDvrStreamManager getDvrManager()
```

Get DVR Stream Manager

Returns:
> DVR Stream Manager

---

getAppInstance

```
public IApplicationInstance getAppInstance()
```

Get associated application instance.

Returns:
> application instance.

---

getManifest

```
public IDvrManifest getManifest()
```

Get manifest

Returns:
> manifest

---

getTimeMapper

```
public DvrTimeMapper getTimeMapper()
```

Get time mapper, which maps between DVR, real and packet time.

Returns:

---

time mapper

---

getPurgeController

public [IDvrPurgeController](#) **getPurgeController**()

Get purge controller for stream store.

Returns:
purge controller

---

getFileSystem

public IDvrFileSystem **getFileSystem**()

---

getChunker

public [IDvrChunker](#) **getChunker**()

---

canRecord

public boolean **canRecord**()

Is this store capable of recording.

Returns:
true if store can record

---

isLoaded

public boolean **isLoaded**()

---

setCanRecord

public void **setCanRecord**(boolean canRecord)

Set the Stream Stores ability to record.

Note: Must be called when stream is not recording.

Parameters:
canRecord

---

canPlay

public boolean **canPlay**()

Is this store capable of playing.

Returns:
true if store can play

---

setCanPlay

`public void` **`setCanPlay`**`(boolean canPlay)`

Set the Stream Stores ability to play.

Note: Must be called when stream is not playing.

Parameters:
canPlay

setHasEncryption

`public void` **`setHasEncryption`**`(boolean hasEncryption)`

Set whether the store has encryption. Used internally.

Note: Must be called when stream is not playing.

Parameters:
hasEncryption - if store has encryption

hasEncryption

`public boolean` **`hasEncryption`**`()`

Does this store contain encryption information

Returns:
true if store contains encryption

hasVideo

`public boolean` **`hasVideo`**`()`

Does this store have video.

Returns:
true if store contains video, false otherwise.

hasAudio

`public boolean` **`hasAudio`**`()`

Does this store have audio.

Returns:
true if store contains audio, false otherwise.

hasData

`public boolean` **`hasData`**`()`

Does this store have data.

Returns:
true if store contains data, false otherwise.

hasOnMetadata

public boolean **hasOnMetadata**()

Does this store have on metadata.

Returns:
true if store contains on metadata, false otherwise.

startRecording

public boolean **startRecording**()

Request that recording start.

Used internally. Clients should call ILiveStreamDvrRecorder.startRecording().

Success occurs if the stream canRecord canRecord() and the stream is not already in the recording state isRecording().

Returns:
true if successful.

pauseRecording

public boolean **pauseRecording**()

Request that stream recording pause.

Used internally. Clients should call ILiveStreamDvrRecorder.pauseRecording().

Success occurs if the stream is not already paused.

Returns:
true if successful.

resumeRecording

public boolean **resumeRecording**()

Request that stream recording resume.

Used internally. Clients should call ILiveStreamDvrRecorder.resumeRecording().

Success occurs if the stream was previously paused.

Returns:
true if successful.

stopRecording

public boolean **stopRecording**()

Request that stream recording stop. This shuts down saving of chunks

Used internally. Clients should call ILiveStreamDvrRecorder.stopRecording().

Success only occurs if the stream is already in the recording state isRecording().

Returns:
true if successful.

isRecordingPaused

```
public boolean isRecordingPaused()
```

> Is store currently paused while recording.
>
> > **Returns:**
> >
> > > true if recording is paused.

isRecording

```
public boolean isRecording()
```

> Is store currently recording. This will always be false for an edge.
>
> > **Returns:**
> >
> > > true if recording

isLive

```
public boolean isLive()
```

> Is store currently live For an origin, isRecording() and isLive() will typically return the same result. On an origin, isRecording() will always be false. But isLive() will reflect the status of the repeated stream.
>
> > **Returns:**
> >
> > > true if live

storeChunks

```
public DvrChunkStorageInfo storeChunks(int vDuration,
        DvrPacketHolder vPackets,
        int aDuration,
        DvrPacketHolder aPackets,
        int dDuration,
        DvrPacketHolder dPackets)
```

storeOnMetadata

```
public boolean storeOnMetadata(long pt,
        long utc,
        AMFPacket metaPacket)
```

purgeEntries

```
public void purgeEntries(DvrManifestEntryRangeGroup rangeGroup)
```

> Purge entries from store
>
> > **Parameters:**
> >
> > > rangeGroup - s set of ranges for purging

addManifestEntries

public void **addManifestEntries**(java.util.List entries)

---

addDvrChunkListener

public void **addDvrChunkListener**(IDvrStoreChunkListener listener)

Add (very fine) listener for chunk events.

Parameters:
listener - listener

---

removeDvrChunkListener

public void **removeDvrChunkListener**(IDvrStoreChunkListener listener)

Remove (very fine) listener for chunk events.

Parameters:
listener - listener

---

getRecordedEntriesWithLimit

public java.util.List **getRecordedEntriesWithLimit**(int fragmentType,
        long t,
        int limit)

---

getRecordedEntryByIndex

public DvrManifestEntry **getRecordedEntryByIndex**(int fragmentType,
        int index)

---

getRecordedEntryByTime

public DvrManifestEntry **getRecordedEntryByTime**(int fragmentType,
        long t)

---

getDvrChunkByIndex

public DvrChunk **getDvrChunkByIndex**(int fragmentType,
        int index)

---

getDvrChunkAtTime

public DvrChunk **getDvrChunkAtTime**(int fragmentType,
        long t)

getDvrChunkNearTime

```
public DvrChunk getDvrChunkNearTime(int fragmentType,
        long t,
        long delta)
```

getClosestStartTime

```
public long getClosestStartTime(int type,
        long t)
```

com.wowza.wms.dvr
Interface IDvrStreamVersionHandler

All Known Implementing Classes:

DefaultDvrStreamVersionHandler

---

public interface **IDvrStreamVersionHandler**
extends

Callback to manage (archival) versions of DVR stream stores

Method Summary

IDvrStreamStore	determineExistingStoreForPlaying(IDvrStreamManager dvrManager, String baseStreamName) When a session requests a stream store w/o specifying the version, we need gto determine the version of the stream to store.
IDvrStreamStore	determineExistingStoreForRecording(IDvrStreamManager dvrManager, String baseStreamName) After a set of versioned streams are loaded from disk, one of them may be designated the stream that will be recorded to (i.e.
String	getArchiveStrategy(IDvrStreamManager dvrManager, String baseStreamName) Determine the archive strategy for a given set of streams.
boolean	handleArchivedStream(IDvrStreamManager dvrManager, String baseStreamName, String version, java.util.SortedSet versions, DvrManifestHolder manifest) When a stream group inits, the file system is checked for older versions of the streams.
boolean	shouldDeleteArchivedStream(IDvrStreamManager dvrManager, IDvrStreamStore store) Determine if a given stream store version should be deleted.
boolean	shouldLoadArchivedStream(IDvrStreamManager dvrManager, String baseStreamName, String version, java.util.SortedSet versions, DvrManifestHolder manifest) Determine if a given stream store version should be loaded into WMS.

Methods

determineExistingStoreForRecording

public IDvrStreamStore **determineExistingStoreForRecording**(IDvrStreamManager dvrManager,
         String baseStreamName)

After a set of versioned streams are loaded from disk, one of them may be designated the stream that will be recorded to (i.e. append mode).

The default implementation says that if append mode, then the highest versioned stream that has canRecord set to true is used. But this API, allows for a more detailed logic.

Parameters:

dvrManager - The DVR Stream Manager

---

baseStreamName - The base stream name (no version info). e.g. myStream

Returns:

stream store to append to, null if no stream in the stream group is to be appended to.

See Also:

DefaultDvrStreamVersionHandler

determineExistingStoreForPlaying

public IDvrStreamStore **determineExistingStoreForPlaying**(IDvrStreamManager dvrManager,
        String baseStreamName)

When a session requests a stream store w/o specifying the version, we need gto determine the version of the stream to store.

The default implementation first checks the recording stream. If it 'canPlay(), it is returned. Otherwise, the highest versioned stream that canRecord set to true is used.

Parameters:

dvrManager - The DVR Stream Manager
baseStreamName - The base stream name (no version info). e.g. myStream

Returns:

stream store to stream, null if no stream in the stream group can be played.

See Also:

DefaultDvrStreamVersionHandler

getArchiveStrategy

public String **getArchiveStrategy**(IDvrStreamManager dvrManager,
        String baseStreamName)

Determine the archive strategy for a given set of streams.

Typically, this returns the archive strategy as specified in Application.xml, but this API provides a hook for more detailed logic in determining the strategy.

Parameters:

dvrManager - The DVR App Instance Manager
baseStreamName - The base stream name (no version info). e.g. myStream

Returns:

the archive strategy

See Also:

DefaultDvrStreamVersionHandler
IDvrConstants.ARCHIVE_STRATEGY_APPEND
IDvrConstants.ARCHIVE_STRATEGY_DELETE
IDvrConstants.ARCHIVE_STRATEGY_VERSION

handleArchivedStream

public boolean **handleArchivedStream**(IDvrStreamManager dvrManager,
        String baseStreamName,
        String version,
        java.util.SortedSet versions,
        DvrManifestHolder manifest)

When a stream group inits, the file system is checked for older versions of the streams. This method is called to handle the streams.

Typically, 3 things can happen: The stream is ignored, loaded, or deleted.

Parameters:
>   dvrManager - The DVR Stream Manager
>   baseStreamName - The base stream name (no version info). e.g. myStream
>   version - The version of the stream to be loaded.
>   versions - A sorted set of all the versions that are attempting to be loaded
>   manifest - The main manifest info of the stream

Returns:
>   true if handled in some manner, false if ignored (unhandled)

See Also:
>   DefaultDvrStreamVersionHandler

---

shouldLoadArchivedStream

```
public boolean shouldLoadArchivedStream(IDvrStreamManager dvrManager,
        String baseStreamName,
        String version,
        java.util.SortedSet versions,
        DvrManifestHolder manifest)
```

Determine if a given stream store version should be loaded into WMS.

Parameters:
>   dvrManager - The DVR Stream Manager
>   baseStreamName - The base stream name (no version info). e.g. myStream
>   version - The version of the stream to be loaded.
>   versions - A sorted set of all the versions that are attempting to be loaded
>   manifest - The main manifest info of the stream

Returns:
>   true if should be loaded. false if not.

See Also:
>   DefaultDvrStreamVersionHandler

---

shouldDeleteArchivedStream

```
public boolean shouldDeleteArchivedStream(IDvrStreamManager dvrManager,
        IDvrStreamStore store)
```

Determine if a given stream store version should be deleted.

Parameters:
>   dvrManager - The DVR Stream Manager
>   store - The DVR store

Returns:
>   true if should be deleted. false if not.

See Also:
>   DefaultDvrStreamVersionHandler

com.wowza.wms.dvr
Interface IDvrTextReader

public interface **IDvrTextReader**
extends ITextReader

Method Summary

void	init(IApplicationInstance appInstance, IMediaStream stream, IDvrFileSystem fileSystem, String artifactName)

Methods inherited from interface `com.wowza.io.ITextReader`

close, exists, getBasePath, getMediaName, getPath, init, isOpen, lastModified, length, open, read, ready

Methods

init

```
public void init(IApplicationInstance appInstance,
        IMediaStream stream,
        IDvrFileSystem fileSystem,
        String artifactName)
```

com.wowza.wms.dvr
Interface IDvrTextWriter

public interface **IDvrTextWriter**
extends ITextWriter

Method Summary

void	init(IApplicationInstance appInstance, IMediaStream stream, IDvrFileSystem fileSystem, String artifactName)

Methods inherited from interface `com.wowza.io.ITextWriter`

close, exists, getBasePath, getMediaName, getPath, init, isAppend, isOpen, lastModified, length, open, setAppend, write, write, write, write

Methods

init

```
public void init(IApplicationInstance appInstance,
        IMediaStream stream,
        IDvrFileSystem fileSystem,
        String artifactName)
```

com.wowza.wms.dvr
Interface IDvrTimeMap

All Superinterfaces:
  IDvrChannelManifest

---

public interface **IDvrTimeMap**
extends IDvrChannelManifest

Method Summary

boolean	containsTime(long startTime, IDvrConstants.DvrTimeScale timeScale)
long	dvrToPt(long dt)
long	dvrToUtc(long dt)
java.util.List	getTimeMap()
java.util.List	getTimeMapEntries()
long	ptToDvr(long pt)
long	toDvr(long t, IDvrConstants.DvrTimeScale timeScale)
long	utcToDvr(long utc)

Methods inherited from interface com.wowza.wms.dvr.IDvrChannelManifest

expandEndTime, expandStartTime, getClosestStartTime, getFirstEntry, getFirstIndex, getIndexMap, getLastLiveEntry, getLastRecordedEntry, getLastRecordedIndex, getLiveDuration, getLiveEntries, getLiveEntries, getLiveEntriesWithLimit, getLiveRangeEndingBeforeTime, getLiveRangeEndingBeforeTime, getLiveTailEntries, getNumberLiveEntries, getNumberLiveEntries, getNumberRecordedEntries, getNumberRecordedEntries, getRecordedDuration, getRecordedEntries, getRecordedEntries, getRecordedEntries, getRecordedEntriesInRange, getRecordedEntriesWithLimit, getRecordedEntryByIndex, getRecordedEntryByTimeKey, getRecordedEntryStartingBeforeTime, getType, isEmpty

---

Methods

getTimeMap

public java.util.List **getTimeMap**()

---

getTimeMapEntries

```
public java.util.List getTimeMapEntries()
```

dvrToUtc

```
public long dvrToUtc(long dt)
```

dvrToPt

```
public long dvrToPt(long dt)
```

ptToDvr

```
public long ptToDvr(long pt)
```

utcToDvr

```
public long utcToDvr(long utc)
```

toDvr

```
public long toDvr(long t,
        IDvrConstants.DvrTimeScale timeScale)
```

containsTime

```
public boolean containsTime(long startTime,
        IDvrConstants.DvrTimeScale timeScale)
```

Package
com.wowza.wms.http

com.wowza.wms.http
Class HTTPProvider2Base

```
java.lang.Object
    │
    +-com.wowza.wms.http.HTTPProvider2Base
```

All Implemented Interfaces:
> IHTTPProvider2

Direct Known Subclasses:
> HTTPLiveStreamRecord

---

public abstract class **HTTPProvider2Base**
extends Object
implements IHTTPProvider2

HTTPProvider2Base: base class for implementing HTTP Providers.

Simple HTTPProvider class

```
public class HTTPHelloWowza extends HTTPProvider2Base
{
        public void onHTTPRequest(IVHost vhost, IHTTPRequest req, IHTTPResponse resp)
        {
                if (!doHTTPAuthentication(vhost, req, resp))
                        return;


                String retStr = "<head><title>Hello Wowza</title></head><body>Hello
Wowza</body>";
                try
                {
                        OutputStream out = resp.getOutputStream();
                        byte[] outBytes = retStr.getBytes();
                        out.write(outBytes);
                }
                catch (Exception e)
                {

WMSLoggerFactory.getLogger(HTTPHelloWowza.class).error("HTTPHelloWowza: "+e.toString());
                }

        }
}
```

Field Summary

---

protected	authenticateHandler	
protected	authenticateHTTPProviderHandler	
protected	authenticationMethod	
protected	filters	
protected	properties	
protected	requestFilters	

Constructor Summary

public	HTTPProvider2Base()

Method Summary

boolean	canHandle(String path) Return true if can handle the request
boolean	doHTTPAuthentication(IVHost vhost, IHTTPRequest req, IHTTPResponse resp) Handle authentication request
String	getAuthenticationMethod() Get the authentication method: digest, basic, none...
String	getPath(IHTTPRequest req, boolean removeFilter) Get the request path
String	getRequestFilters() Get the request filter
void	init() Initialize the HTTPProvider
void	onBind(IVHost vhost, HostPort hostPort) Called when bind is called on port
void	onUnbind(IVHost vhost, HostPort hostPort) Called when unbinid is called on port
void	setAuthenticationMethod(String authenticationMethod) Set authentication method: digest, basic, none...
void	setProperties(WMSProperties properties) Set properties
void	setRequestFilters(String requestFilters) Set the request filter

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface com.wowza.wms.http.IHTTPProvider2

canHandle, getAuthenticationMethod, getRequestFilters, init, setAuthenticationMethod,
setRequestFilters

Methods inherited from interface com.wowza.wms.http.IHTTPProvider

onBind, onHTTPRequest, onUnbind, setProperties

Fields

properties

protected com.wowza.wms.application.WMSProperties **properties**

filters

protected java.util.List **filters**

requestFilters

protected java.lang.String **requestFilters**

authenticateHandler

protected com.wowza.wms.authentication.IAuthenticate **authenticateHandler**

authenticateHTTPProviderHandler

protected com.wowza.wms.authentication.IAuthenticateHTTPProvider
authenticateHTTPProviderHandler

authenticationMethod

protected java.lang.String **authenticationMethod**

Constructors

HTTPProvider2Base

public **HTTPProvider2Base**()

Methods

init

public void **init**()

>   Initialize the HTTPProvider

canHandle

public boolean **canHandle**(String path)

>   Return true if can handle the request

>   ### Parameters:
>   >   path - request path

>   ### Returns:
>   >   true, if can handle the request

getPath

public String **getPath**(<u>IHTTPRequest</u> req,
        boolean removeFilter)

>   Get the request path

>   ### Parameters:
>   >   req - request
>   >   removeFilter - set to true to remove filter part of URL

>   ### Returns:
>   >   path

setRequestFilters

public void **setRequestFilters**(String requestFilters)

>   Set the request filter

>   ### Parameters:
>   >   requestFilters - request filter

getRequestFilters

public String **getRequestFilters**()

>   Get the request filter

>   ### Returns:
>   >   request filter

setProperties

`public void` **`setProperties`**`(`<u>`WMSProperties`</u>` properties)`

Set properties

Parameters:
   `properties` - properties

onBind

`public void` **`onBind`**`(`<u>`IVHost`</u>` vhost,`
          <u>`HostPort`</u>` hostPort)`

Called when bind is called on port

Parameters:
   `vhost` - vhost
   `hostPort` - host port

onUnbind

`public void` **`onUnbind`**`(`<u>`IVHost`</u>` vhost,`
          <u>`HostPort`</u>` hostPort)`

Called when unbinid is called on port

Parameters:
   `vhost` - vhost
   `hostPort` - host port

getAuthenticationMethod

`public String` **`getAuthenticationMethod`**`()`

Get the authentication method: digest, basic, none...

Returns:
   authentication method

setAuthenticationMethod

`public void` **`setAuthenticationMethod`**`(String authenticationMethod)`

Set authentication method: digest, basic, none...

Parameters:
   `authenticationMethod` - authentication method

doHTTPAuthentication

`public boolean` **`doHTTPAuthentication`**`(`<u>`IVHost`</u>` vhost,`
          <u>`IHTTPRequest`</u>` req,`
          <u>`IHTTPResponse`</u>` resp)`

Handle authentication request

Parameters:

vhost - vhost
req - request
resp - response

Returns:

true, if request should be handled by the HTTPProvider subclass

com.wowza.wms.http
Interface IHTTPProvider

All Subinterfaces:

   IHTTPProvider2

---

public interface **IHTTPProvider**
extends

IHTTPProvider: HTTP provider class for a given HostPort definition. Receive all HTTP requests that are not RTMPT requests. See IHTTPProvider2 for the extended version of this interface.

Method Summary

void	**onBind**(IVHost vhost, HostPort hostPort) Triggered after hostPort binds to socket
void	**onHTTPRequest**(IVHost vhost, IHTTPRequest req, IHTTPResponse resp) Triggered for each HTTP request to the given hostPort that is not an RTMPT request.
void	**onUnbind**(IVHost vhost, HostPort hostPort) Triggered after hostPort unbinds
void	**setProperties**(WMSProperties properties) Called to provide properties set in configuration files

---

Methods

onBind

public void **onBind**(IVHost vhost,
        HostPort hostPort)

   Triggered after hostPort binds to socket

   Parameters:
        vhost - parent vhost
        hostPort - host port definition

---

onHTTPRequest

public void **onHTTPRequest**(IVHost vhost,
        IHTTPRequest req,
        IHTTPResponse resp)

   Triggered for each HTTP request to the given hostPort that is not an RTMPT request.

   Parameters:
        vhost - parent vhost
        req - HTML requestion object
        resp - HTML response object

---

onUnbind

```
public void onUnbind(IVHost vhost,
          HostPort hostPort)
```

Triggered after hostPort unbinds

Parameters:
vhost - parent vhost
hostPort - host port definition

setProperties

```
public void setProperties(WMSProperties properties)
```

Called to provide properties set in configuration files

com.wowza.wms.http
Interface IHTTPProvider2

All Superinterfaces:
> IHTTPProvider

All Known Implementing Classes:
> HTTPProvider2Base

---

public interface **IHTTPProvider2**
extends IHTTPProvider

IHTTPProvider2: Extension of IHTTPProvider that adds support for multiple HTTPProviders attached to a single HostPort along with authentication. Multiple HTTPProviders can be added to a HostPort definition. They are configured as follows:

```
<HTTPProvider>
        <BaseClass>com.wowza.wms.http.HTTPServerVersion</BaseClass>
        <RequestFilters>*serverversion</RequestFilters>
        <AuthenticationMethod>none</AuthenticationMethod>
</HTTPProvider>
```

Below is an sample implementation of the HTTPServerVersion provider:

```
import java.io.*;

import com.wowza.wms.server.*;
import com.wowza.wms.stream.*;
import com.wowza.wms.vhost.*;
import com.wowza.wms.logging.*;

public class HTTPServerVersion extends HTTPProvider2Base
{
        public void onHTTPRequest(IVHost vhost, IHTTPRequest req, IHTTPResponse resp)
        {
                if (!doHTTPAuthentication(vhost, req, resp))
                        return;

                String version = MediaStreamBase.p+" "+ReleaseInfo.getVersion()+"
build"+ReleaseInfo.getBuildNumber();
                String retStr =
"<html><head><title>"+version+"</title></head><body>"+version+"</body></html>";
                try
                {
                        OutputStream out = resp.getOutputStream();
                        byte[] outBytes = retStr.getBytes();
                        out.write(outBytes);
                }
                catch (Exception e)
                {

WMSLoggerFactory.getLogger(HTTPServerVersion.class).error("HTMLServerVersion:
"+e.toString());
                }

        }
}
```

Method Summary

boolean	[canHandle](String path)
String	[getAuthenticationMethod]()
String	[getRequestFilters]()
void	[init]()
void	[setAuthenticationMethod](String authenticationMethod)
void	[setRequestFilters](String requestFilters)

Methods inherited from interface com.wowza.wms.http.IHTTPProvider
onBind, onHTTPRequest, onUnbind, setProperties

Methods

canHandle

public boolean **canHandle**(String path)

setRequestFilters

public void **setRequestFilters**(String requestFilters)

getRequestFilters

public String **getRequestFilters**()

init

public void **init**()

getAuthenticationMethod

public String **getAuthenticationMethod**()

setAuthenticationMethod

public void **setAuthenticationMethod**(String authenticationMethod)

com.wowza.wms.http
Interface IHTTPRequest

public interface **IHTTPRequest**
extends

Method Summary

int	**getContentLength**() Get the content length of the body of the message
String	**getContentType**() Get the request content type
String	**getHeader**(String name) Get a HTTP header value such as 'Content-Length'
byte[]	**getHeaderBytes**() Returns the header as bytes
java.util.Map	**getHeaderMap**() Get a copy of the HTTP request header map
java.util.Set	**getHeaderNames**() Get a Set of the header names
java.io.InputStream	**getInputStream**() Get the body of the message as an input stream
int	**getIntHeader**(String name) Get a HTTP header value such as 'Content-Length' and return as int
java.util.Locale	**getLocale**() Get locale of request (Example: en-us)
String	**getMethod**() Get the method invocation method: GET, POST, HEAD
byte[]	**getMsgBytes**() Return the message bytes
String	**getParameter**(String name) Get a parameter value
java.util.Map	**getParameterMap**() Get the entire parameter Map
java.util.Set	**getParameterNames**() Get a Set of parameter names
String[]	**getParameterValues**(String name) Get a multi-value parameter as an array of String
String	**getPath**() Returns the HTTP path element of the request

String	`getProtocol()`	
		Get the request protocol (example: HTTP/1.1)
String	`getQueryString()`	
		Get the query string part of the url (everything after the ?)
String	`getRemoteAddr()`	
		Get the remote ip address of the request
String	`getRemoteHost()`	
		Get the remote host name (if known) if not return ip address
String	`getRequestURI()`	
		Get the full request URI
String	`getRequestURL()`	
		Get the request url (same as URI minus the query string)
String	`getScheme()`	
		Get the request scheme (Example "http")
String	`getServerName()`	
		Get the name of the server (Example: "Wowza Media Server Pro")
int	`getServerPort()`	
		Get the port this request was received on
boolean	`isSecure()`	
		Returns true is the request is protected by SSL
void	`parseBodyForParams()`	
		If the body of the message contains parameter data (data in name value pairs separated by & character) call this routine to decode those parameters and add them to the parameter map.
void	`parseBodyForParams(boolean doDecode)`	
		If the body of the message contains parameter data (data in name value pairs separated by & character) call this routine to decode those parameters and add them to the parameter map.

Methods

getHeaderMap

`public java.util.Map getHeaderMap()`

Get a copy of the HTTP request header map

Returns:
    copy of the HTTP request header map

getHeader

`public String getHeader(String name)`

Get a HTTP header value such as 'Content-Length'

Parameters:
    name - header name

Returns:

　　header value

getIntHeader

```
public int getIntHeader(String name)
```

Get a HTTP header value such as 'Content-Length' and return as int

Parameters:

　　name - header name

Returns:

　　header value

getHeaderNames

```
public java.util.Set getHeaderNames()
```

Get a Set of the header names

Returns:

　　Set of header names

getMethod

```
public String getMethod()
```

Get the method invokation method: GET, POST, HEAD

Returns:

　　method

getQueryString

```
public String getQueryString()
```

Get the query string part of the url (everything after the ?)

Returns:

　　query string

getContentLength

```
public int getContentLength()
```

Get the content length of the body of the message

Returns:

　　content length of the body of the message

getRequestURI

```
public String getRequestURI()
```

Get the full request URI

Returns:
full request URI

---

getRequestURL

`public String getRequestURL()`

Get the request url (same as URI minus the query string)

Returns:
request url

---

getContentType

`public String getContentType()`

Get the request content type

Returns:
request content type

---

parseBodyForParams

`public void parseBodyForParams(boolean doDecode)`

If the body of the message contains parameter data (data in name value pairs separated by & character) call this routine to decode those parameters and add them to the parameter map.

Parameters:
doDecode - true to decode the params as though they are url params

---

parseBodyForParams

`public void parseBodyForParams()`

If the body of the message contains parameter data (data in name value pairs separated by & character) call this routine to decode those parameters and add them to the parameter map.

---

getParameter

`public String getParameter(String name)`

Get a parameter value

Parameters:
name - parameter name

Returns:
parameter value

---

getParameterNames

`public java.util.Set getParameterNames()`

Get a Set of parameter names

Returns:
Set of parameter names

getParameterValues

`public String[] ` **`getParameterValues`**`(String name)`

Get a multi-value parameter as an array of String

Parameters:
name - parameter name

Returns:
multi-value parameter as an array of String

getParameterMap

`public java.util.Map ` **`getParameterMap`**`()`

Get the entire parameter Map

Returns:
parameter Map

getInputStream

`public java.io.InputStream ` **`getInputStream`**`()`

Get the body of the message as an input stream

Returns:
body of the message as an input stream

getProtocol

`public String ` **`getProtocol`**`()`

Get the request protocol (example: HTTP/1.1)

Returns:
request protocol

getScheme

`public String ` **`getScheme`**`()`

Get the request scheme (Example "http")

Returns:
request scheme

getServerName

`public String ` **`getServerName`**`()`

Get the name of the server (Example: "Wowza Media Server Pro")

Returns:
name of the server

getServerPort

`public int `**`getServerPort`**`()`

> Get the port this request was received on

> **Returns:**
>> the port this request was received on

getRemoteAddr

`public String `**`getRemoteAddr`**`()`

> Get the remote ip address of the request

> **Returns:**
>> remote ip address of the request

getRemoteHost

`public String `**`getRemoteHost`**`()`

> Get the remote host name (if known) if not return ip address

> **Returns:**
>> remote host name

getLocale

`public java.util.Locale `**`getLocale`**`()`

> Get locale of request (Example: en-us)

> **Returns:**
>> locale of request

isSecure

`public boolean `**`isSecure`**`()`

> Returns true is the request is protected by SSL

> **Returns:**
>> true is the request is protected by SSL

getPath

`public String `**`getPath`**`()`

> Returns the HTTP path element of the request

> **Returns:**
>> HTTP path element of the request

getHeaderBytes

`public byte[] `**`getHeaderBytes`**`()`

Returns the header as bytes

Returns:
> header as bytes

getMsgBytes

`public byte[] `**`getMsgBytes`**`()`

Return the message bytes

Returns:
> message bytes

Returns the header as bytes

Returns:
> header as bytes

com.wowza.wms.http
Interface IHTTPResponse

public interface **IHTTPResponse**
extends

Method Summary

boolean	[containsHeader](String name) Returns true if response header contains parameter name
String	[getHeader](String name) Get header value
java.util.Map	[getHeaders]() Get the current response headers as a map
int	[getHeaderSize]() Get the size in bytes of the HTTP header
int	[getIntHeader](String name) Get header value as int
java.io.OutputStream	[getOutputStream]() Get the output stream for the response.
void	[removeHeader](String name) Remove header value
void	[setHeader](String name, String value) Set header value
void	[setIntHeader](String name, int value) Set header value as int
void	[setResponseCode](int responseCode) Set the HTTP response code

Methods

getOutputStream

public java.io.OutputStream **getOutputStream**()

Get the output stream for the response. You can then write directly into the output stream.

Returns:
output stream for the response

containsHeader

public boolean **containsHeader**(String name)

Returns true if response header contains parameter name

Parameters:
> name - header parameter name

Returns:
> true if header contains value

---

setHeader

```
public void setHeader(String name,
        String value)
```

Set header value

Parameters:
> name - header parameter name
> value - parameter value

---

removeHeader

```
public void removeHeader(String name)
```

Remove header value

Parameters:
> name - name

---

setIntHeader

```
public void setIntHeader(String name,
        int value)
```

Set header value as int

Parameters:
> name - header parameter name
> value - parameter value

---

getHeaders

```
public java.util.Map getHeaders()
```

Get the current response headers as a map

Returns:
> current response headers as a map

---

getHeader

```
public String getHeader(String name)
```

Get header value

Parameters:
> name - header parameter name

Returns:

parameter value

getIntHeader

```
public int getIntHeader(String name)
```

Get header value as int

Parameters:
name - header parameter name

Returns:
parameter value

setResponseCode

```
public void setResponseCode(int responseCode)
```

Set the HTTP response code

Parameters:
responseCode - HTTP response code

getHeaderSize

```
public int getHeaderSize()
```

Get the size in bytes of the HTTP header

Returns:
header size in bytes

Package

com.wowza.wms.httpstreamer.cupertinostreaming.httpstreamer

com.wowza.wms.httpstreamer.cupertinostreaming.httpstreamer
Class HTTPStreamerSessionCupertino

```
java.lang.Object
    │
    +-com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
        │
        +-
```
com.wowza.wms.httpstreamer.cupertinostreaming.httpstreamer.HTTPStreamerSessionCupertino

All Implemented Interfaces:
[IHTTPSessionNotify](), [IHTTPStreamerSession]()

---

public class **HTTPStreamerSessionCupertino**
extends HTTPStreamerSessionBase
implements [IHTTPStreamerSession](), [IHTTPSessionNotify]()

Fields inherited from class com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
acceptSession, appInstance, connectionHolder, cookieStr, DATEFORMAT, elapsedTime, fastDateFormat, fileInfoMap, firstCheck, httpHeaders, httpStreamerAdapter, ioPerformanceCounter, ipAddress, isActive, isHTTPOrigin, isPlayLogged, lastRequest, liveStreamingPacketizer, lock, mediaCasterStreamLock, notifyCreate, playDuration, playStart, properties, queryStr, redirectSession, redirectSessionBody, redirectSessionCode, redirectSessionContentType, redirectSessionURL, referrer, serverIp, serverPort, sessionId, sessionProtocol, sessionTimeout, sessionType, stream, streamDomainStrSet, streamExt, streamName, streamNamePartMap, streamPosition, timeoutSession, totalIOPerformance2Last, totalIOPerformanceLast, uri, userAgent, userHTTPHeaders, userQueryStr, vhost

Fields inherited from interface com.wowza.wms.httpstreamer.model.IHTTPStreamerSession
SESSIONPROTOCOL_COUNT, SESSIONPROTOCOL_CUPERTINOSTREAMING, SESSIONPROTOCOL_DVRCHUNKSTREAMING, SESSIONPROTOCOL_MPEGDASHSTREAMING, SESSIONPROTOCOL_SANJOSESTREAMING, SESSIONPROTOCOL_SMOOTHSTREAMING, SESSIONPROTOCOL_UNKNOWN, SESSIONPROTOCOL_WEBMSTREAMING, SESSIONTYPE_LIVE, SESSIONTYPE_LIVEDVR, SESSIONTYPE_UNKNOWN, SESSIONTYPE_VOD

Constructor Summary

public	[HTTPStreamerSessionCupertino]()()

Method Summary

void	[clearLoggingValues]()()
boolean	[containsIndex]()(String streamName)
static boolean	[doesFileExist]([IHTTPStreamerApplicationContext]() appContext, String rawStreamName, String streamExt, String streamName, [IHTTPStreamerSession]() httpStreamerSession)

IHTTPStreamerCupertin oIndex	getIndex(IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName, long playStart, long playDuration, TimedTextRequest captionRequest)
void	logLiveChunk(LiveStreamPacketizerCupertinoChunk chunk)
void	logVODChunk(LiveStreamPacketizerCupertinoChunk chunk)
void	notifyHTTPSessionCreate(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	notifyHTTPSessionDestroy(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	shutdown()
void	updateLoggingValues()

Methods inherited from class com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr, addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues, containsStreamDomainStr, containsStreamNameParts, doSessionRedirect, extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder, getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPDate, getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr, getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamDomainStr, getStreamDomainStrList, getStreamExt, getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName, setStreamPosition, setThreadContext, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr, setValidated, setVHost, shutdown, shutdownLocked, touch, updateLoggingValues, validStreamDomainToString

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.httpstreamer.model.IHTTPStreamerSession

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr, addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues, containsStreamDomainStr, containsStreamNameParts, doSessionRedirect, extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder, getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr, getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamExt, getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName, setStreamPosition, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr, setVHost, shutdown, touch, updateLoggingValues, validStreamDomainToString

Methods inherited from interface com.wowza.wms.httpstreamer.model.IHTTPSessionNotify

notifyHTTPSessionCreate, notifyHTTPSessionDestroy

Constructors

HTTPStreamerSessionCupertino

public **HTTPStreamerSessionCupertino**()

Methods

shutdown

public void **shutdown**()

containsIndex

public boolean **containsIndex**(String streamName)

doesFileExist

```
public static boolean doesFileExist(IHTTPStreamerApplicationContext appContext,
        String rawStreamName,
        String streamExt,
        String streamName,
        IHTTPStreamerSession httpStreamerSession)
```

getIndex

```
public IHTTPStreamerCupertinoIndex getIndex(IHTTPStreamerApplicationContext appContext,
        IHTTPStreamerSession httpStreamerSession,
        String rawStreamName,
        String streamExt,
        String streamName,
        long playStart,
        long playDuration,
        TimedTextRequest captionRequest)
```

updateLoggingValues

```
public void updateLoggingValues()
```

clearLoggingValues

```
public void clearLoggingValues()
```

logLiveChunk

```
public void logLiveChunk(LiveStreamPacketizerCupertinoChunk chunk)
```

logVODChunk

```
public void logVODChunk(LiveStreamPacketizerCupertinoChunk chunk)
```

notifyHTTPSessionCreate

```
public void notifyHTTPSessionCreate(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

notifyHTTPSessionDestroy

```
public void notifyHTTPSessionDestroy(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

com.wowza.wms.httpstreamer.cupertinostreaming.httpstreamer
Interface IHTTPStreamerCupertinoVODActionNotify

All Subinterfaces:

> IHTTPStreamerCupertinoVODActionNotify2

---

public interface **IHTTPStreamerCupertinoVODActionNotify**
extends

IHTTPStreamerCupertinoVODActionNotify: listener interface for video on demand iOS streaming. See
HTTPStreamerApplicationContextCupertinoStreamer.addVODActionListener(IHTTPStreamerCupertinoVODActionNotify listener)

Method Summary

void	**onCreate**(IHTTPStreamerCupertinoIndex fileIndex, IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName) Called when file index created
void	**onDestroy**(IHTTPStreamerCupertinoIndex fileIndex) Called after file index is destroyed
void	**onFillChunkEnd**(IHTTPStreamerCupertinoIndex fileIndex, IHTTPStreamerCupertinoIndexItem item, LiveStreamPacketizerCupertinoChunk chunk, boolean audioOnly) Called after each chunk is filled.
void	**onFillChunkStart**(IHTTPStreamerCupertinoIndex fileIndex, IHTTPStreamerCupertinoIndexItem item, LiveStreamPacketizerCupertinoChunk chunk, boolean audioOnly) Called each time a chunk is filled.
void	**onIndex**(IHTTPStreamerCupertinoIndex fileIndex, IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName) Called after file is indexed
void	**onInit**(IHTTPStreamerCupertinoIndex fileIndex, IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName) Called after initialized
void	**onOpen**(IHTTPStreamerCupertinoIndex fileIndex, IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName) Called after open

Methods

---

onCreate

```
public void onCreate(IHTTPStreamerCupertinoIndex fileIndex,
        IHTTPStreamerApplicationContext appContext,
        IHTTPStreamerSession httpStreamerSession,
        String rawStreamName,
        String streamExt,
        String streamName)
```

Called when file index created

Parameters:

fileIndex - file index

appContext - HTTP application context

httpStreamerSession - HTTP streaming session

rawStreamName - stream name

streamExt - stream extension

streamName - adjusted stream name

onInit

```
public void onInit(IHTTPStreamerCupertinoIndex fileIndex,
        IHTTPStreamerApplicationContext appContext,
        IHTTPStreamerSession httpStreamerSession,
        String rawStreamName,
        String streamExt,
        String streamName)
```

Called after initialized

Parameters:

fileIndex - file index

appContext - HTTP application context

httpStreamerSession - HTTP streaming session

rawStreamName - stream name

streamExt - stream extension

streamName - adjusted stream name

onOpen

```
public void onOpen(IHTTPStreamerCupertinoIndex fileIndex,
        IHTTPStreamerApplicationContext appContext,
        IHTTPStreamerSession httpStreamerSession,
        String rawStreamName,
        String streamExt,
        String streamName)
```

Called after open

Parameters:

fileIndex - file index

appContext - HTTP application context

httpStreamerSession - HTTP streaming session

rawStreamName - stream name

streamExt - stream extension

streamName - adjusted stream name

onIndex

```
public void onIndex(IHTTPStreamerCupertinoIndex fileIndex,
        IHTTPStreamerApplicationContext appContext,
        IHTTPStreamerSession httpStreamerSession,
        String rawStreamName,
        String streamExt,
        String streamName)
```

Called after file is indexed

Parameters:

fileIndex - file index

appContext - HTTP application context

httpStreamerSession - HTTP streaming session

rawStreamName - stream name

streamExt - stream extension

streamName - adjusted stream name

onFillChunkStart

```
public void onFillChunkStart(IHTTPStreamerCupertinoIndex fileIndex,
        IHTTPStreamerCupertinoIndexItem item,
        LiveStreamPacketizerCupertinoChunk chunk,
        boolean audioOnly)
```

Called each time a chunk is filled. Can be used to add ID3 data to the header of a chunk.

Parameters:

fileIndex - file index

item - index item

chunk - chunk being filled

audioOnly - is audio-only chunk

onFillChunkEnd

```
public void onFillChunkEnd(IHTTPStreamerCupertinoIndex fileIndex,
        IHTTPStreamerCupertinoIndexItem item,
        LiveStreamPacketizerCupertinoChunk chunk,
        boolean audioOnly)
```

Called after each chunk is filled. Can be used to add ID3 data to the end of a chunk.

Parameters:

fileIndex - file index

item - index item

chunk - chunk being filled

audioOnly - is audio-only chunk

onDestroy

```
public void onDestroy(IHTTPStreamerCupertinoIndex fileIndex)
```

Called after file index is destroyed

Parameters:

fileIndex - file index

com.wowza.wms.httpstreamer.cupertinostreaming.httpstreamer
Interface IHTTPStreamerCupertinoVODActionNotify2

All Superinterfaces:

> IHTTPStreamerCupertinoVODActionNotify

---

public interface **IHTTPStreamerCupertinoVODActionNotify2**
extends IHTTPStreamerCupertinoVODActionNotify

Method Summary

void	**onFillChunkDataPacket**(IHTTPStreamerCupertinoIndex fileIndex, IHTTPStreamerCupertinoIndexItem item, LiveStreamPacketizerCupertinoChunk chunk, boolean audioOnly, AMFPacket packet, ID3Frames id3Frames) Called when data packet is encountered.

Methods inherited from interface com.wowza.wms.httpstreamer.cupertinostreaming.httpstreamer.IHTTPStreamerCupertinoVODActionNotify

onCreate, onDestroy, onFillChunkEnd, onFillChunkStart, onIndex, onInit, onOpen

---

Methods

onFillChunkDataPacket

```
public void onFillChunkDataPacket(IHTTPStreamerCupertinoIndex fileIndex,
        IHTTPStreamerCupertinoIndexItem item,
        LiveStreamPacketizerCupertinoChunk chunk,
        boolean audioOnly,
        AMFPacket packet,
        ID3Frames id3Frames)
```

Called when data packet is encountered. Used to convert AMF events into ID3 tags for iOS streaming

Parameters:
> `fileIndex` - file index
> `item` - item
> `chunk` - chunk
> `audioOnly` - is audio-only chunk
> `packet` - amf packet
> `id3Frames` - ID3 frames

com.wowza.wms.httpstreamer.model

com.wowza.wms.httpstreamer.model
Interface IHTTPCryptoHolder

public interface **IHTTPCryptoHolder**
extends

Method Summary

byte[]	[getBuffer](#)()
int	[getOffset](#)()
int	[getPacketType](#)()
long	[getSample](#)()
int	[getSize](#)()
void	[setBuffer](#)(byte[] buffer)
void	[setOffset](#)(int offset)
void	[setPacketType](#)(int packetType)
void	[setSample](#)(long sample)
void	[setSize](#)(int size)

Methods

getBuffer

public byte[] **getBuffer**()

setBuffer

public void **setBuffer**(byte[] buffer)

getOffset

public int **getOffset**()

setOffset

```
public void setOffset(int offset)
```

getSize

```
public int getSize()
```

setSize

```
public void setSize(int size)
```

getPacketType

```
public int getPacketType()
```

setPacketType

```
public void setPacketType(int packetType)
```

getSample

```
public long getSample()
```

setSample

```
public void setSample(long sample)
```

com.wowza.wms.httpstreamer.model
Interface IHTTPSessionFactory

public interface **IHTTPSessionFactory**
extends

Method Summary

IHTTPStreamerSession	createHTTPSessionInstance()

Methods

createHTTPSessionInstance

public IHTTPStreamerSession **createHTTPSessionInstance**()

com.wowza.wms.httpstreamer.model
Interface IHTTPSessionNotify

All Known Implementing Classes:
      HTTPStreamerSessionSmoothStreamer, HTTPStreamerSessionSanJose, HTTPStreamerSessionCupertino

---

public interface **IHTTPSessionNotify**
extends

Method Summary

void	**notifyHTTPSessionCreate**(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	**notifyHTTPSessionDestroy**(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)

Methods

notifyHTTPSessionCreate

public void **notifyHTTPSessionCreate**(IApplicationInstance appInstance,
      IHTTPStreamerSession httpStreamerSession)

---

notifyHTTPSessionDestroy

public void **notifyHTTPSessionDestroy**(IApplicationInstance appInstance,
      IHTTPStreamerSession httpStreamerSession)

com.wowza.wms.httpstreamer.model
Interface IHTTPStreamerAdapter

public interface **IHTTPStreamerAdapter**
extends

IHTTPStreamerAdapter: HTTP streaming adapter interface

Method Summary

boolean	**canHandle**(String path) Return true if can handle request
String	**getAdapterName**() Get the name of this adapter
HTTPStreamerItem	**getHTTPStreamerItem**() Get the HTTP streamer item associated with this adapter
String	**getID**() Get the id of this adapter
int	**getIdleFrequency**() Get the idle frequency (milliseconds) for HTTP requests.
WMSProperties	**getProperties**() Get properties
int	**getSessionProtocol**() Set the adapter session protocol.
IVHost	**getVHost**() Get the vhost associated with this adapter
void	**init**() Initialize the HTTP streaming adapter
void	**service**(org.apache.mina.common.IoSession session, RtmpRequestMessage req, RtmpResponseMessage resp) Called to service each request
void	**setHTTPStreamerItem**(HTTPStreamerItem httpStreamerItem) Set the HTTP streamer item associated with this adapter
void	**setID**(String id) Set the id of this adapter
void	**setProperties**(WMSProperties properties) Set properties
void	**setSessionProtocol**(int sessionProtocol) Get the adapter session protocol.
void	**setVHost**(IVHost vhost) Set the vhost associated with this adapter

void	shutdownSession(IApplicationInstance appInstance, IHTTPStreamerSession session)
	Called when an HTTP streaming session is shutdown

Methods

canHandle

```
public boolean canHandle(String path)
```

Return true if can handle request

Parameters:
path - request path

Returns:
true if can handle request

service

```
public void service(org.apache.mina.common.IoSession session,
        RtmpRequestMessage req,
        RtmpResponseMessage resp)
```

Called to service each request

Parameters:
session - io session
req - request
resp - response

getProperties

```
public WMSProperties getProperties()
```

Get properties

Returns:
properties

setProperties

```
public void setProperties(WMSProperties properties)
```

Set properties

Parameters:
properties - properties

getHTTPStreamerItem

```
public HTTPStreamerItem getHTTPStreamerItem()
```

Get the HTTP streamer item associated with this adapter

Returns:

HTTP streamer item

setHTTPStreamerItem

public void **setHTTPStreamerItem**(HTTPStreamerItem httpStreamerItem)

Set the HTTP streamer item associated with this adapter

Parameters:
> httpStreamerItem - HTTP streamer item

getVHost

public [IVHost](#) **getVHost**()

Get the vhost associated with this adapter

Returns:
> vhost

setVHost

public void **setVHost**([IVHost](#) vhost)

Set the vhost associated with this adapter

Parameters:
> vhost - vhost

init

public void **init**()

Initialize the HTTP streaming adapter

shutdownSession

public void **shutdownSession**([IApplicationInstance](#) appInstance,
        [IHTTPStreamerSession](#) session)

Called when an HTTP streaming session is shutdown

Parameters:
> session - HTTP streaming session

getIdleFrequency

public int **getIdleFrequency**()

Get the idle frequency (milliseconds) for HTTP requests. This is how often the session is called back while active.

Returns:
> idle frequency (milliseconds)

getAdapterName

public String **getAdapterName**()

Get the name of this adapter

Returns:
name of this adapter

getID

```
public String getID()
```

Get the id of this adapter

Returns:
id of this adapter

setID

```
public void setID(String id)
```

Set the id of this adapter

Parameters:
id - id of this adapter

getSessionProtocol

```
public int getSessionProtocol()
```

Set the adapter session protocol. See IHTTPStreamerSession.SESSIONPROTOCOL_*

Returns:
adapter session protocol

setSessionProtocol

```
public void setSessionProtocol(int sessionProtocol)
```

Get the adapter session protocol. See IHTTPStreamerSession.SESSIONPROTOCOL_*

Parameters:
sessionProtocol - adapter session protocol

com.wowza.wms.httpstreamer.model
Interface IHTTPStreamerApplicationContext

public interface **IHTTPStreamerApplicationContext**
extends

IHTTPStreamerApplicationContext: HTTP streamer application context interface. Used by HTTP streaming adapter to store per-application information.

Field Summary

public static final	**HTTPORIGINMODE_AUTO** Value: **1**
public static final	**HTTPORIGINMODE_OFF** Value: **0**
public static final	**HTTPORIGINMODE_ON** Value: **2**

Method Summary

IApplicationInstance	**getAppInstance**() Get application instance
int	**getHTTPOriginMode**() Get current HTTP origin mode.
WMSProperties	**getProperties**() Get properties
MediaCasterItem	**getRepeaterMediaCasterDef**() Get the live repeater media caster definition
String	**getStreamTypeStr**() Get stream type
IVHost	**getVHost**() Get vhost
void	**init**(IApplicationInstance appInstance, HTTPStreamerItem httpStreamerItem) Initialize context
boolean	**isHTTPOriginOn**() Returns true if HTTP origin mode is set to ON.
boolean	**isStreamDomainProtectionActive**() Return true if sttream domain protection is on
void	**setHTTPOriginMode**(int httpOriginMode) Set current HTTP origin mode.

void	**setRepeaterMediaCasterDef**([MediaCasterItem](#) repeaterMediaCasterDef) Set the live repeater media caster definition	
void	**setStreamDomainProtectionActive**(boolean streamDomainProtectionActive) Turn on/off stream domain protection	
void	**setStreamTypeStr**(String streamTypeStr) Set stream type	

Fields

HTTPORIGINMODE_OFF

```
public static final int HTTPORIGINMODE_OFF
```

Constant value: **0**

HTTPORIGINMODE_AUTO

```
public static final int HTTPORIGINMODE_AUTO
```

Constant value: **1**

HTTPORIGINMODE_ON

```
public static final int HTTPORIGINMODE_ON
```

Constant value: **2**

Methods

init

```
public void init(IApplicationInstance appInstance,
        HTTPStreamerItem httpStreamerItem)
```

Initialize context

Parameters:
appInstance - application instance
httpStreamerItem - HTTP streamer

getProperties

```
public WMSProperties getProperties()
```

Get properties

Returns:
properties

getAppInstance

public IApplicationInstance **getAppInstance**()

Get application instance

Returns:
application instance

getVHost

public IVHost **getVHost**()

Get vhost

Returns:
vhost

getRepeaterMediaCasterDef

public MediaCasterItem **getRepeaterMediaCasterDef**()

Get the live repeater media caster definition

Returns:
live repeater media caster definition

setRepeaterMediaCasterDef

public void **setRepeaterMediaCasterDef**(MediaCasterItem repeaterMediaCasterDef)

Set the live repeater media caster definition

Parameters:
repeaterMediaCasterDef - live repeater media caster definition

getStreamTypeStr

public String **getStreamTypeStr**()

Get stream type

Returns:
stream type

setStreamTypeStr

public void **setStreamTypeStr**(String streamTypeStr)

Set stream type

Parameters:
streamTypeStr - stream type

isStreamDomainProtectionActive

public boolean **isStreamDomainProtectionActive**()

Return true if stream domain protection is on

Returns:
> true if stream domain protection is on

setStreamDomainProtectionActive

public void **setStreamDomainProtectionActive**(boolean streamDomainProtectionActive)

Turn on/off stream domain protection

Parameters:
> streamDomainProtectionActive - true if stream domain protection is on

getHTTPOriginMode

public int **getHTTPOriginMode**()

Get current HTTP origin mode. See HTTPORIGINMODE_ (auto is currently not supported)

Returns:
> HTTP origin mode

setHTTPOriginMode

public void **setHTTPOriginMode**(int httpOriginMode)

Set current HTTP origin mode. See HTTPORIGINMODE_ (auto is currently not supported)

Parameters:
> httpOriginMode - HTTP origin mode

isHTTPOriginOn

public boolean **isHTTPOriginOn**()

Returns true if HTTP origin mode is set to ON.

Returns:
> true if HTTP origin mode is set to ON.

com.wowza.wms.httpstreamer.model
Interface IHTTPStreamerRepeater

public interface **IHTTPStreamerRepeater**
extends

IHTTPStreamerRepeater: stream switching constants

Field Summary

public static final	[MSG_STARTSTREAM](#)
	Value: **startStream**
public static final	[MSG_SWITCHSTREAM](#)
	Value: **switchStream**

Fields

MSG_STARTSTREAM

public static final java.lang.String **MSG_STARTSTREAM**

Constant value: **startStream**

MSG_SWITCHSTREAM

public static final java.lang.String **MSG_SWITCHSTREAM**

Constant value: **switchStream**

com.wowza.wms.httpstreamer.model
Interface IHTTPStreamerSession

public interface **IHTTPStreamerSession**
extends

IHTTPStreamerSession: HTTP streaming session interface

Field Summary

public static final	SESSIONPROTOCOL_COUNT	
	Value: **6**	
public static final	SESSIONPROTOCOL_CUPERTINOSTREAMING	
	Value: **1**	
public static final	SESSIONPROTOCOL_DVRCHUNKSTREAMING	
	Value: **5**	
public static final	SESSIONPROTOCOL_MPEGDASHSTREAMING	
	Value: **4**	
public static final	SESSIONPROTOCOL_SANJOSESTREAMING	
	Value: **2**	
public static final	SESSIONPROTOCOL_SMOOTHSTREAMING	
	Value: **0**	
public static final	SESSIONPROTOCOL_UNKNOWN	
	Value: **-1**	
public static final	SESSIONPROTOCOL_WEBMSTREAMING	
	Value: **3**	
public static final	SESSIONTYPE_LIVE	
	Value: **1**	
public static final	SESSIONTYPE_LIVEDVR	
	Value: **3**	
public static final	SESSIONTYPE_UNKNOWN	
	Value: **0**	
public static final	SESSIONTYPE_VOD	
	Value: **2**	

Method Summary

void	**acceptSession**() Accept the HTTP session.
void	**addIOPerformance**(IOPerformanceCounter totalIOPerformanceResult) Internal user, keep track of IO performance
void	**addIOPerformance2**(IOPerformanceCounter totalIOPerformanceResult) Internal user, keep track of IO performance
void	**addStreamDomainStr**(String streamDomainStr) Internal user, add stream name
void	**addStreamDomainStrs**(java.util.List streamNames) Internal user, add stream names
void	**addUserHTTPHeaders**(IHTTPResponse resp) Internal
boolean	**checkAndSetPlayLogged**() If play has not been logged return false, else returns true, sets play has been logged
void	**clearLoggingValues**() Internal user, clear logging values
boolean	**containsStreamDomainStr**(String streamDomainStr) Internal user, test stream name
boolean	**containsStreamNameParts**(String streamName) Return true if stream name in stream name parts
void	**doSessionRedirect**(IHTTPResponse resp) Internal
void	**extractHTTPRequestInfo**(IHTTPRequest req) Extract information from HTTP request
boolean	**getAndClearNotifyCreate**()
IApplicationInstance	**getAppInstance**() Get the application instance associated with this HTTP session
ConnectionHolder	**getConnectionHolder**() Connection holder for this session
String	**getCookieStr**() Get cookie string
DvrSessionInfo	**getDvrSessionInfo**() This information is used to manage the connection to the DVR store.
ElapsedTimer	**getElapsedTime**() Get the elapsed timer to see how long this session has been running
HTTPStreamerFileInfo	**getFileInfo**(String streamName) Get the file information if video on demand streaming

String	**getHTTPHeader**(String name) Get a HTTP header value such as 'Content-Length'
java.util.Map	**getHTTPHeaderMap**() Get a copy of the HTTP request header map
java.util.Set	**getHTTPHeaderNames**() Get a Set of the header names
int	**getHTTPIntHeader**(String name) Get a HTTP header value such as 'Content-Length' and return as int
IHTTPStreamerAdapter	**getHTTPStreamerAdapter**() Get the HTTP streaming adapter associated with this HTTP session
IOPerformanceCounter	**getIOPerformanceCounter**() Get IO performance counter
String	**getIpAddress**() Get the IP address
long	**getLastRequest**() Get the last timestamp of the last Io request
String	**getLiveStreamingPacketizer**() Get the live stream packetizer name
Object	**getLock**() Get the synchronization lock for this HTTP session
long	**getPlayDuration**() Get the play duration (milliseconds) for video on demand playback.
long	**getPlayStart**() Get the play start time offset (milliseconds) for video on demand playback.
WMSProperties	**getProperties**() Get the properties associated with this session
String	**getQueryStr**() Get query string
byte[]	**getRedirectSessionBody**() Get redirect session body
int	**getRedirectSessionCode**() Get session redirect HTTP response code (default 302)
String	**getRedirectSessionContentType**() Get redirect session HTTP Content-Type
String	**getRedirectSessionURL**() Get redirect session URL
String	**getReferrer**() Get referrer
String	**getServerIp**() Get server IP address

int	**getServerPort**() Get server port	
String	**getSessionId**() Get session id	
int	**getSessionProtocol**() Get protocol, see SESSIONPROTOCOL_*	
int	**getSessionTimeout**() Get the session timeout for this session (milliseconds)	
int	**getSessionType**() Get session type: see SESSIONTYPE_*	
IMediaStream	**getStream**() Get the IMediaStream associated with this HTTP session	
String	**getStreamExt**() Get stream extension	
String	**getStreamName**() Get stream name	
HTTPStreamerStreamNameParts	**getStreamNameParts**(String streamName) Break the stream name into parts	
long	**getStreamPosition**() Get stream position	
String	**getTimeRunning**() Get the time this session has been running (milliseconds)	
double	**getTimeRunningSeconds**() Get the time this session has been running (seconds)	
String	**getUri**() Get the URI associated with initial request	
String	**getUserAgent**() Get user agent	
java.util.Map	**getUserHTTPHeaders**() Get user HTTP header.	
String	**getUserQueryStr**() This query string will be added to URLs used in HTTP streaming	
IVHost	**getVHost**() Get vhost	
boolean	**isAcceptSession**() Return true if this session has not been rejected	
boolean	**isActive**() Is this session active, false after shutdown	
boolean	**isFileInfo**(String streamName) Return true if the is file information for a given stream name	

boolean	**isHTTPOrigin**()	
	Return true if session in an HTTP origin session	
boolean	**isPlayLogged**()	
	true, if play has been logged	
boolean	**isRedirectSession**()	
	Is session redirect	
boolean	**isTimeout**(long timecode)	
	Return true if this session is timed out.	
boolean	**isTimeoutSession**()	
	Get is session timeout.	
boolean	**isValidated**()	
	Has this session been validated	
boolean	**isValidStreamDomainStr**(String streamDomainStr)	
	Internal user, is stream name valid for HTTP session	
void	**lockRepeaterStreams**(java.util.List streamNames, String liveStreamPacketizer, String liveStreamRepeater, String streamTypeStr)	
	Internal user, lock in reapter streams	
void	**putFileInfo**(String streamName, HTTPStreamerFileInfo fileInfo)	
	Set the file information	
void	**putStreamNameParts**(String streamName, HTTPStreamerStreamNameParts streamNameParts)	
	Add stream name to stream name parts	
void	**redirectSession**(String redirectSessionURL)	
	Redirect session	
void	**redirectSession**(String redirectSessionURL, int redirectSessionCode)	
	Redirect session	
void	**rejectSession**()	
	Reject this HTTP session.	
void	**removeStreamDomainStr**(String streamDomainStr)	
	Internal user, remove stream name	
void	**setAcceptSession**(boolean acceptSession)	
	Set to false to reject session	
void	**setActive**(boolean isActive)	
	Set session active	
void	**setAppInstance**(IApplicationInstance appInstance)	
	Set the application instance associated with this HTTP session	
void	**setCookieStr**(String cookieStr)	
	Set cookie string	
void	**setDvrSessionInfo**(DvrSessionInfo dvr)	
	This information is used to manage the connection to the DVR store.	

void	**setHTTPOrigin**(boolean isHTTPOrigin) Set to true if HTTP origin session
void	**setHTTPStreamerAdapter**([IHTTPStreamerAdapter](#) httpStreamerAdapter) Set the HTTP streaming adapter associated with this HTTP session
void	**setIpAddress**(String ipAddress) Set the IP address
void	**setLiveStreamingPacketizer**(String liveStreamingPacketizer) Set the live stream packetizer name
void	**setPlayDuration**(long playDuration) Set the play duration (milliseconds) for video on demand playback.
void	**setPlayLogged**(boolean isPlayLogged) true, if play has been logged
void	**setPlayStart**(long playStart) Set the play start time offset (milliseconds) for video on demand playback.
void	**setQueryStr**(String queryStr) Set query string
void	**setRedirectSession**(boolean redirectSession) Set session redirect
void	**setRedirectSessionBody**(byte[] redirectSessionBody) Set redirect session body
void	**setRedirectSessionCode**(int redirectSessionCode) Set session redirect HTTP response code (default 302)
void	**setRedirectSessionContentType**(String redirectSessionContentType) Set redirect session HTTP Content-Type
void	**setRedirectSessionURL**(String redirectSessionURL) Set redirect session URL
void	**setReferrer**(String referrer) Set referrer
void	**setServerIp**(String serverIp) Set server IP address
void	**setServerPort**(int serverPort) Set server port
void	**setSessionId**(String sessionId) Set session id
void	**setSessionProtocol**(int sessionProtocol) Set protocol, see SESSIONPROTOCOL_*
void	**setSessionTimeout**(int sessionTimeout) Set the session timeout for this session (milliseconds)
void	**setSessionType**(int sessionType) Set session type: see SESSIONTYPE_*

void	**setStream**(**IMediaStream** stream) Set the IMediaStream associated with this HTTP session
void	**setStreamExt**(String streamExt) Set stream extension
void	**setStreamName**(String streamName) Set stream name
void	**setStreamPosition**(long streamPosition) Set stream position (will not cause seek)
void	**setTimeoutSession**(boolean timeoutSession) Set is session timeout.
void	**setUri**(String uri) Set the URI associated with initial request
void	**setUserAgent**(String userAgent) Set user agent
void	**setUserHTTPHeader**(String name, String value) Set user HTTP header.
void	**setUserQueryStr**(String userQueryStr) This query string will be added to URLs used in HTTP streaming
void	**setVHost**(**IVHost** vhost) Set vhost
void	**shutdown**() Called then the HTTP session is shutting down
void	**touch**(long timecode) Touch this session to keep it active.
void	**updateLoggingValues**() Internal user, update logging values
String	**validStreamDomainToString**() Return the valid domain strings as a string

Fields

SESSIONTYPE_UNKNOWN

public static final int **SESSIONTYPE_UNKNOWN**

Constant value: **0**

SESSIONTYPE_LIVE

public static final int **SESSIONTYPE_LIVE**

Constant value: **1**

SESSIONTYPE_VOD

`public static final int` **`SESSIONTYPE_VOD`**

Constant value: **2**

SESSIONTYPE_LIVEDVR

`public static final int` **`SESSIONTYPE_LIVEDVR`**

Constant value: **3**

SESSIONPROTOCOL_UNKNOWN

`public static final int` **`SESSIONPROTOCOL_UNKNOWN`**

Constant value: **-1**

SESSIONPROTOCOL_SMOOTHSTREAMING

`public static final int` **`SESSIONPROTOCOL_SMOOTHSTREAMING`**

Constant value: **0**

SESSIONPROTOCOL_CUPERTINOSTREAMING

`public static final int` **`SESSIONPROTOCOL_CUPERTINOSTREAMING`**

Constant value: **1**

SESSIONPROTOCOL_SANJOSESTREAMING

`public static final int` **`SESSIONPROTOCOL_SANJOSESTREAMING`**

Constant value: **2**

SESSIONPROTOCOL_WEBMSTREAMING

`public static final int` **`SESSIONPROTOCOL_WEBMSTREAMING`**

Constant value: **3**

SESSIONPROTOCOL_MPEGDASHSTREAMING

`public static final int` **`SESSIONPROTOCOL_MPEGDASHSTREAMING`**

Constant value: **4**

SESSIONPROTOCOL_DVRCHUNKSTREAMING

`public static final int` **`SESSIONPROTOCOL_DVRCHUNKSTREAMING`**

Constant value: **5**

SESSIONPROTOCOL_COUNT

`public static final int` **`SESSIONPROTOCOL_COUNT`**

Constant value: **6**

Methods

getSessionId

`public String` **`getSessionId`**`()`

Get session id

Returns:
    session id

setSessionId

`public void` **`setSessionId`**`(String sessionId)`

Set session id

Parameters:
    sessionId - session id

getVHost

`public` [IVHost](#) **`getVHost`**`()`

Get vhost

Returns:
    vhost

setVHost

`public void` **`setVHost`**`(`[IVHost](#) `vhost)`

Set vhost

Parameters:
    vhost - vhost

touch

`public void` **`touch`**`(long timecode)`

Touch this session to keep it active.

Parameters:

`timecode` - timecode of touch - System.currentTimeMillis();

isTimeout

`public boolean` **`isTimeout`**`(long timecode)`

Return true if this session is timed out.

Parameters:
`timecode` - last touch - System.currentTimeMillis();

Returns:
true, if timed out

getLock

`public Object` **`getLock`**`()`

Get the synchronization lock for this HTTP session

Returns:
synchronization lock

shutdown

`public void` **`shutdown`**`()`

Called then the HTTP session is shutting down

isActive

`public boolean` **`isActive`**`()`

Is this session active, false after shutdown

Returns:
true if session is active

setActive

`public void` **`setActive`**`(boolean isActive)`

Set session active

Parameters:
`isActive` - session active

getStream

`public` [`IMediaStream`](#) **`getStream`**`()`

Get the IMediaStream associated with this HTTP session

Returns:
IMediaStream associated with this HTTP session

setStream

```
public void setStream(IMediaStream stream)
```

Set the IMediaStream associated with this HTTP session

Parameters:
stream - IMediaStream associated with this HTTP session

isTimeoutSession

```
public boolean isTimeoutSession()
```

Get is session timeout.

Returns:
true if this session is timed out

setTimeoutSession

```
public void setTimeoutSession(boolean timeoutSession)
```

Set is session timeout.

Parameters:
timeoutSession - true if this session is timed out

getSessionTimeout

```
public int getSessionTimeout()
```

Get the session timeout for this session (milliseconds)

Returns:
session timeout for this session (milliseconds)

setSessionTimeout

```
public void setSessionTimeout(int sessionTimeout)
```

Set the session timeout for this session (milliseconds)

Parameters:
sessionTimeout - session timeout for this session (milliseconds)

isValidated

```
public boolean isValidated()
```

Has this session been validated

Returns:
true, if validated

checkAndSetPlayLogged

```
public boolean checkAndSetPlayLogged()
```

If play has not been logged return false, else returns true, sets play has been logged

> **Returns:**
> true, if play has been logged

isPlayLogged

```
public boolean isPlayLogged()
```

true, if play has been logged

> **Returns:**
> true, if play has been logged

setPlayLogged

```
public void setPlayLogged(boolean isPlayLogged)
```

true, if play has been logged

> **Parameters:**
> isPlayLogged - true, if play has been logged

addIOPerformance

```
public void addIOPerformance(IOPerformanceCounter totalIOPerformanceResult)
```

Internal user, keep track of IO performance

> **Parameters:**
> totalIOPerformanceResult - IO performance

addIOPerformance2

```
public void addIOPerformance2(IOPerformanceCounter totalIOPerformanceResult)
```

Internal user, keep track of IO performance

> **Parameters:**
> totalIOPerformanceResult - IO performance

getConnectionHolder

```
public ConnectionHolder getConnectionHolder()
```

Connection holder for this session

> **Returns:**
> connection holder

getHTTPStreamerAdapter

```
public IHTTPStreamerAdapter getHTTPStreamerAdapter()
```

Get the HTTP streaming adapter associated with this HTTP session

> **Returns:**
> HTTP streaming adapter

setHTTPStreamerAdapter

public void **setHTTPStreamerAdapter**(IHTTPStreamerAdapter httpStreamerAdapter)

Set the HTTP streaming adapter associated with this HTTP session

Parameters:
httpStreamerAdapter - HTTP streaming adapter

getAppInstance

public IApplicationInstance **getAppInstance**()

Get the application instance associated with this HTTP session

Returns:
application instance associated with this HTTP session

setAppInstance

public void **setAppInstance**(IApplicationInstance appInstance)

Set the application instance associated with this HTTP session

Parameters:
appInstance - application instance associated with this HTTP session

getSessionType

public int **getSessionType**()

Get session type: see SESSIONTYPE_*

Returns:
session type: see SESSIONTYPE_*

setSessionType

public void **setSessionType**(int sessionType)

Set session type: see SESSIONTYPE_*

Parameters:
sessionType - session type: see SESSIONTYPE_*

getLiveStreamingPacketizer

public String **getLiveStreamingPacketizer**()

Get the live stream packetizer name

Returns:
live stream packetizer name

setLiveStreamingPacketizer

public void **setLiveStreamingPacketizer**(String liveStreamingPacketizer)

Set the live stream packetizer name

Parameters:
    `liveStreamingPacketizer` - live stream packetizer name

getIpAddress

`public String` **`getIpAddress`**`()`

Get the IP address

Returns:
    IP address

setIpAddress

`public void` **`setIpAddress`**`(String ipAddress)`

Set the IP address

Parameters:
    `ipAddress` - IP address

updateLoggingValues

`public void` **`updateLoggingValues`**`()`

Internal user, update logging values

clearLoggingValues

`public void` **`clearLoggingValues`**`()`

Internal user, clear logging values

getSessionProtocol

`public int` **`getSessionProtocol`**`()`

Get protocol, see SESSIONPROTOCOL_*

Returns:
    protocol, see SESSIONPROTOCOL_*

setSessionProtocol

`public void` **`setSessionProtocol`**`(int sessionProtocol)`

Set protocol, see SESSIONPROTOCOL_*

Parameters:
    `sessionProtocol` - protocol, see SESSIONPROTOCOL_*

getServerIp

`public String` **`getServerIp`**`()`

Get server IP address

Returns:
server IP address

setServerIp

```
public void setServerIp(String serverIp)
```

Set server IP address

Parameters:
serverIp - server IP address

getServerPort

```
public int getServerPort()
```

Get server port

Returns:
server port

setServerPort

```
public void setServerPort(int serverPort)
```

Set server port

Parameters:
serverPort - server port

getUserAgent

```
public String getUserAgent()
```

Get user agent

Returns:
user agent

setUserAgent

```
public void setUserAgent(String userAgent)
```

Set user agent

Parameters:
userAgent - user agent

getUri

```
public String getUri()
```

Get the URI associated with initial request

Returns:
URI associated with initial request

setUri

```
public void setUri(String uri)
```

Set the URI associated with initial request

Parameters:
uri - URI associated with initial request

getReferrer

```
public String getReferrer()
```

Get referrer

Returns:
referrer

setReferrer

```
public void setReferrer(String referrer)
```

Set referrer

Parameters:
referrer - referrer

getQueryStr

```
public String getQueryStr()
```

Get query string

Returns:
query string

setQueryStr

```
public void setQueryStr(String queryStr)
```

Set query string

Parameters:
queryStr - query string

lockRepeaterStreams

```
public void lockRepeaterStreams(java.util.List streamNames,
        String liveStreamPacketizer,
        String liveStreamRepeater,
        String streamTypeStr)
```

Internal user, lock in reapter streams

Parameters:
streamNames - list of stream names
liveStreamPacketizer - live stream packetizer name
liveStreamRepeater - live repeater name

`streamTypeStr` - stream type

rejectSession

public void **rejectSession**()

> Reject this HTTP session. No further processing should occur

acceptSession

public void **acceptSession**()

> Accept the HTTP session.

isAcceptSession

public boolean **isAcceptSession**()

> Return true if this session has not been rejected

> **Returns:**
> > true if this session has not been rejected

setAcceptSession

public void **setAcceptSession**(boolean acceptSession)

> Set to false to reject session

> **Parameters:**
> > `acceptSession` - false to reject session

getCookieStr

public String **getCookieStr**()

> Get cookie string

> **Returns:**
> > cookie string

setCookieStr

public void **setCookieStr**(String cookieStr)

> Set cookie string

> **Parameters:**
> > `cookieStr` - cookie string

getStreamName

public String **getStreamName**()

> Get stream name

> **Returns:**
> > stream name

setStreamName

```
public void setStreamName(String streamName)
```

Set stream name

Parameters:
streamName - stream name

getStreamExt

```
public String getStreamExt()
```

Get stream extension

Returns:
stream extension

setStreamExt

```
public void setStreamExt(String streamExt)
```

Set stream extension

Parameters:
streamExt - stream extension

getStreamNameParts

```
public HTTPStreamerStreamNameParts getStreamNameParts(String streamName)
```

Break the stream name into parts

Parameters:
streamName - stream name

Returns:
stream name parts

containsStreamNameParts

```
public boolean containsStreamNameParts(String streamName)
```

Return true if stream name in stream name parts

Parameters:
streamName - stream name

Returns:
true if stream name in stream name parts

putStreamNameParts

```
public void putStreamNameParts(String streamName,
        HTTPStreamerStreamNameParts streamNameParts)
```

Add stream name to stream name parts

Parameters:
    streamName - stream name
    streamNameParts - stream name parts

---

getStreamPosition

    public long **getStreamPosition**()

Get stream position

Returns:
    stream position

---

setStreamPosition

    public void **setStreamPosition**(long streamPosition)

Set stream position (will not cause seek)

Parameters:
    streamPosition - stream position

---

getIOPerformanceCounter

    public IOPerformanceCounter **getIOPerformanceCounter**()

Get IO performance counter

Returns:
    IO performance counter

---

getFileInfo

    public HTTPStreamerFileInfo **getFileInfo**(String streamName)

Get the file information if video on demand streaming

Parameters:
    streamName - stream name

Returns:
    file information

---

putFileInfo

    public void **putFileInfo**(String streamName,
            HTTPStreamerFileInfo fileInfo)

Set the file information

Parameters:
    streamName - stream name
    fileInfo - file information

---

isFileInfo

    public boolean **isFileInfo**(String streamName)

Return true if the is file information for a given stream name

---

Parameters:
    `streamName` - stream name

Returns:
    true if the is file information for a given stream name

---

isValidStreamDomainStr

`public boolean `**`isValidStreamDomainStr`**`(String streamDomainStr)`

Internal user, is stream name valid for HTTP session

Parameters:
    `streamDomainStr` - stream name

Returns:
    true if valid

---

validStreamDomainToString

`public String `**`validStreamDomainToString`**`()`

Return the valid domain strings as a string

Returns:
    valid domain strings as a string

---

containsStreamDomainStr

`public boolean `**`containsStreamDomainStr`**`(String streamDomainStr)`

Internal user, test stream name

Parameters:
    `streamDomainStr` - stream name

Returns:
    true if valid

---

removeStreamDomainStr

`public void `**`removeStreamDomainStr`**`(String streamDomainStr)`

Internal user, remove stream name

Parameters:
    `streamDomainStr` - stream name

---

addStreamDomainStr

`public void `**`addStreamDomainStr`**`(String streamDomainStr)`

Internal user, add stream name

Parameters:
    `streamDomainStr` - stream name

addStreamDomainStrs

public void **addStreamDomainStrs**(java.util.List streamNames)

Internal user, add stream names

Parameters:
    streamNames - stream names

getElapsedTime

public ElapsedTimer **getElapsedTime**()

Get the elapsed timer to see how long this session has been running

Returns:
    elapsed timer (milliseconds)

getTimeRunning

public String **getTimeRunning**()

Get the time this session has been running (milliseconds)

Returns:
    time this session has been running (milliseconds)

getTimeRunningSeconds

public double **getTimeRunningSeconds**()

Get the time this session has been running (seconds)

Returns:
    time this session has been running (seconds)

getProperties

public WMSProperties **getProperties**()

Get the properties associated with this session

Returns:
    properties

getUserQueryStr

public String **getUserQueryStr**()

This query string will be added to URLs used in HTTP streaming

Returns:
    user query string

setUserQueryStr

public void **setUserQueryStr**(String userQueryStr)

This query string will be added to URLs used in HTTP streaming

Parameters:
> userQueryStr - user query string

setDvrSessionInfo

```
public void setDvrSessionInfo(DvrSessionInfo dvr)
```

This information is used to manage the connection to the DVR store.

Parameters:
> dvr - The DVR session info.

getDvrSessionInfo

```
public DvrSessionInfo getDvrSessionInfo()
```

This information is used to manage the connection to the DVR store.

Returns:
> DVR session info.

extractHTTPRequestInfo

```
public void extractHTTPRequestInfo(IHTTPRequest req)
```

Extract information from HTTP request

Parameters:
> req - HTTP request

getHTTPHeaderMap

```
public java.util.Map getHTTPHeaderMap()
```

Get a copy of the HTTP request header map

Returns:
> copy of the HTTP request header map

getHTTPHeader

```
public String getHTTPHeader(String name)
```

Get a HTTP header value such as 'Content-Length'

Parameters:
> name - header name

Returns:
> header value

getHTTPIntHeader

```
public int getHTTPIntHeader(String name)
```

Get a HTTP header value such as 'Content-Length' and return as int

Parameters:
      `name` - header name

Returns:
      header value

---

getHTTPHeaderNames

`public java.util.Set `**`getHTTPHeaderNames`**`()`

Get a Set of the header names

Returns:
      Set of header names

---

getPlayStart

`public long `**`getPlayStart`**`()`

Get the play start time offset (milliseconds) for video on demand playback.

Returns:
      play start time offset (milliseconds)

---

setPlayStart

`public void `**`setPlayStart`**`(long playStart)`

Set the play start time offset (milliseconds) for video on demand playback.

Parameters:
      `playStart` - play start time offset (milliseconds)

---

getPlayDuration

`public long `**`getPlayDuration`**`()`

Get the play duration (milliseconds) for video on demand playback. A values of -1 means play to end.

Returns:
      play duration (milliseconds)

---

setPlayDuration

`public void `**`setPlayDuration`**`(long playDuration)`

Set the play duration (milliseconds) for video on demand playback. A values of -1 means play to end.

Parameters:
      `playDuration` - play duration (milliseconds)

---

setUserHTTPHeader

`public void `**`setUserHTTPHeader`**`(String name,`
      `String value)`

Set user HTTP header. This header value will be added to all HTTP responses

Parameters:
> name - name
> value - value

getUserHTTPHeaders

public java.util.Map **getUserHTTPHeaders**()

Get user HTTP header. This header value will be added to all HTTP responses

Returns:
> header map

addUserHTTPHeaders

public void **addUserHTTPHeaders**([IHTTPResponse](#) resp)

Internal

Parameters:
> resp - response

doSessionRedirect

public void **doSessionRedirect**([IHTTPResponse](#) resp)

Internal

Parameters:
> resp - response

isRedirectSession

public boolean **isRedirectSession**()

Is session redirect

Returns:
> session redirect

setRedirectSession

public void **setRedirectSession**(boolean redirectSession)

Set session redirect

Parameters:
> redirectSession - session redirect

getRedirectSessionCode

public int **getRedirectSessionCode**()

Get session redirect HTTP response code (default 302)

Returns:
> session redirect HTTP response code

setRedirectSessionCode

```
public void setRedirectSessionCode(int redirectSessionCode)
```

Set session redirect HTTP response code (default 302)

Parameters:
redirectSessionCode - session redirect HTTP response code

getRedirectSessionURL

```
public String getRedirectSessionURL()
```

Get redirect session URL

Returns:
redirect session URL

setRedirectSessionURL

```
public void setRedirectSessionURL(String redirectSessionURL)
```

Set redirect session URL

Parameters:
redirectSessionURL - redirect session URL

redirectSession

```
public void redirectSession(String redirectSessionURL)
```

Redirect session

Parameters:
redirectSessionURL - redirect session URL

redirectSession

```
public void redirectSession(String redirectSessionURL,
        int redirectSessionCode)
```

Redirect session

Parameters:
redirectSessionURL - redirect session URL
redirectSessionCode - redirect session response code (default 302)

getRedirectSessionBody

```
public byte[] getRedirectSessionBody()
```

Get redirect session body

Returns:
redirect session body

setRedirectSessionBody

public void **setRedirectSessionBody**(byte[] redirectSessionBody)

Set redirect session body

Parameters:
redirectSessionBody - redirect session body

getRedirectSessionContentType

public String **getRedirectSessionContentType**()

Get redirect session HTTP Content-Type

Returns:
redirect session HTTP Content-Type

setRedirectSessionContentType

public void **setRedirectSessionContentType**(String redirectSessionContentType)

Set redirect session HTTP Content-Type

Parameters:
redirectSessionContentType

getLastRequest

public long **getLastRequest**()

Get the last timestamp of the last Io request

Returns:
last timestamp of the last Io request (milliseconds)

isHTTPOrigin

public boolean **isHTTPOrigin**()

Return true if session in an HTTP origin session

Returns:
true if session in an HTTP origin session

setHTTPOrigin

public void **setHTTPOrigin**(boolean isHTTPOrigin)

Set to true if HTTP origin session

Parameters:
isHTTPOrigin - true if HTTP origin session

getAndClearNotifyCreate

public boolean **getAndClearNotifyCreate**()

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com.wowza.wms.httpstreamer.model
Interface IHTTPStreamerSessionNotify

public interface **IHTTPStreamerSessionNotify**
extends

IHTTPStreamerSessionNotify: HTTP session create/destroy interface

Method Summary

void	onHTTPStreamerSessionCreate(IHTTPStreamerSession httpStreamerSession) Called when an HTTP streaming session is created
void	onHTTPStreamerSessionDestroy(IHTTPStreamerSession httpStreamerSession) Called when an HTTP streaming session is destroyed

Methods

onHTTPStreamerSessionCreate

public void **onHTTPStreamerSessionCreate**(IHTTPStreamerSession httpStreamerSession)

Called when an HTTP streaming session is created

Parameters:
    httpStreamerSession - HTTP streaming session

onHTTPStreamerSessionDestroy

public void **onHTTPStreamerSessionDestroy**(IHTTPStreamerSession httpStreamerSession)

Called when an HTTP streaming session is destroyed

Parameters:
    httpStreamerSession - HTTP streaming session

com.wowza.wms.httpstreamer.model
Interface ILiveStreamPacketizerChunkWriter

public interface **ILiveStreamPacketizerChunkWriter**
extends

Method Summary

void	addToChunk(LiveStreamPacketizerPacketHolder holder)
void	endChunk(long timecode)
boolean	isPacketizeAudio()
boolean	isPacketizeData()
boolean	isPacketizeVideo()
boolean	isValidAudioCodec(int codec)
boolean	isValidVideoCodec(int codec)
void	resetStream()
void	setCodecInfoAudio(com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio)
void	setCodecInfoVideo(com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)
void	startChunk(int streamMode, int videoCodecId, int audioCodecId, long timecode)

Methods

startChunk

```
public void startChunk(int streamMode,
        int videoCodecId,
        int audioCodecId,
        long timecode)
```

endChunk

```
public void endChunk(long timecode)
```

addToChunk

```
public void addToChunk(LiveStreamPacketizerPacketHolder holder)
```

setCodecInfoAudio

```
public void setCodecInfoAudio(com.wowza.wms.media.model.MediaCodecInfoAudio
codecInfoAudio)
```

setCodecInfoVideo

```
public void setCodecInfoVideo(com.wowza.wms.media.model.MediaCodecInfoVideo
codecInfoVideo)
```

resetStream

```
public void resetStream()
```

isPacketizeAudio

```
public boolean isPacketizeAudio()
```

isPacketizeVideo

```
public boolean isPacketizeVideo()
```

isPacketizeData

```
public boolean isPacketizeData()
```

isValidAudioCodec

```
public boolean isValidAudioCodec(int codec)
```

isValidVideoCodec

```
public boolean isValidVideoCodec(int codec)
```

Package

com.wowza.wms.httpstreamer.mpegdashstreaming.httpstreamer

com.wowza.wms.httpstreamer.mpegdashstreaming.httpstreamer
Class HTTPStreamerSessionMPEGDash

```
java.lang.Object
    │
    +-com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
        │
        +-
com.wowza.wms.httpstreamer.mpegdashstreaming.httpstreamer.HTTPStreamerSessionMPEGDash
```

All Implemented Interfaces:
> IHTTPStreamerSession

---

public class **HTTPStreamerSessionMPEGDash**
extends HTTPStreamerSessionBase

Fields inherited from class com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
acceptSession, appInstance, connectionHolder, cookieStr, DATEFORMAT, elapsedTime, fastDateFormat, fileInfoMap, firstCheck, httpHeaders, httpStreamerAdapter, ioPerformanceCounter, ipAddress, isActive, isHTTPOrigin, isPlayLogged, lastRequest, liveStreamingPacketizer, lock, mediaCasterStreamLock, notifyCreate, playDuration, playStart, properties, queryStr, redirectSession, redirectSessionBody, redirectSessionCode, redirectSessionContentType, redirectSessionURL, referrer, serverIp, serverPort, sessionId, sessionProtocol, sessionTimeout, sessionType, stream, streamDomainStrSet, streamExt, streamName, streamNamePartMap, streamPosition, timeoutSession, totalIOPerformance2Last, totalIOPerformanceLast, uri, userAgent, userHTTPHeaders, userQueryStr, vhost

Fields inherited from interface com.wowza.wms.httpstreamer.model.IHTTPStreamerSession
SESSIONPROTOCOL_COUNT, SESSIONPROTOCOL_CUPERTINOSTREAMING, SESSIONPROTOCOL_DVRCHUNKSTREAMING, SESSIONPROTOCOL_MPEGDASHSTREAMING, SESSIONPROTOCOL_SANJOSESTREAMING, SESSIONPROTOCOL_SMOOTHSTREAMING, SESSIONPROTOCOL_UNKNOWN, SESSIONPROTOCOL_WEBMSTREAMING, SESSIONTYPE_LIVE, SESSIONTYPE_LIVEDVR, SESSIONTYPE_UNKNOWN, SESSIONTYPE_VOD

Constructor Summary

public	HTTPStreamerSessionMPEGDash()

Method Summary

void	clearLoggingValues()
boolean	containsIndex(String streamName)
static IHTTPStreamerMPEGDash Index	createIndexLive(IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName)
IHTTPStreamerMPEGDash Index	getIndex(IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName, long playStart, long playDuration)

IHTTPStreamerMPEGDash Index	getIndexLive(IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName)
void	logLiveChunk(MPEGDashDashChunk chunk)
void	logVODChunk(MPEGDashDashChunk chunk)
void	notifyHTTPSessionCreate(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	notifyHTTPSessionDestroy(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	shutdown()
void	updateLoggingValues()

Methods inherited from class `com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase`

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr, addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues, containsStreamDomainStr, containsStreamNameParts, doSessionRedirect, extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder, getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPDate, getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr, getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamDomainStr, getStreamDomainStrList, getStreamExt, getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName, setStreamPosition, setThreadContext, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr, setValidated, setVHost, shutdown, shutdownLocked, touch, updateLoggingValues, validStreamDomainToString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `com.wowza.wms.httpstreamer.model.IHTTPStreamerSession`

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr,
addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues,
containsStreamDomainStr, containsStreamNameParts, doSessionRedirect,
extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder,
getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPHeader,
getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter,
getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer,
getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr,
getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType,
getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId,
getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamExt,
getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning,
getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr,
getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged,
isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr,
lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession,
redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive,
setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin,
setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration,
setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody,
setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL,
setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol,
setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName,
setStreamPosition, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader,
setUserQueryStr, setVHost, shutdown, touch, updateLoggingValues,
validStreamDomainToString

Constructors

HTTPStreamerSessionMPEGDash

public **HTTPStreamerSessionMPEGDash**()

Methods

shutdown

public void **shutdown**()

containsIndex

public boolean **containsIndex**(String streamName)

createIndexLive

```
public static IHTTPStreamerMPEGDashIndex
createIndexLive(IHTTPStreamerApplicationContext appContext,
         IHTTPStreamerSession httpStreamerSession,
         String rawStreamName,
         String streamExt,
         String streamName)
```

getIndexLive

```
public IHTTPStreamerMPEGDashIndex getIndexLive(IHTTPStreamerApplicationContext
appContext,
         IHTTPStreamerSession httpStreamerSession,
         String rawStreamName,
         String streamExt,
         String streamName)
```

getIndex

```
public IHTTPStreamerMPEGDashIndex getIndex(IHTTPStreamerApplicationContext appContext,
         IHTTPStreamerSession httpStreamerSession,
         String rawStreamName,
         String streamExt,
         String streamName,
         long playStart,
         long playDuration)
```

updateLoggingValues

```
public void updateLoggingValues()
```

clearLoggingValues

```
public void clearLoggingValues()
```

logLiveChunk

```
public void logLiveChunk(MPEGDashDashChunk chunk)
```

logVODChunk

```
public void logVODChunk(MPEGDashDashChunk chunk)
```

notifyHTTPSessionCreate

```
public void notifyHTTPSessionCreate(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

notifyHTTPSessionDestroy

```
public void notifyHTTPSessionDestroy(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

```
public void notifyHTTPSessionCreate(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

Package

com.wowza.wms.httpstreamer.sanjosestreaming.httpstreamer

com.wowza.wms.httpstreamer.sanjosestreaming.httpstreamer
Class HTTPStreamerSessionSanJose

```
java.lang.Object
    │
    +-com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
        │
        +-
com.wowza.wms.httpstreamer.sanjosestreaming.httpstreamer.HTTPStreamerSessionSanJose
```

All Implemented Interfaces:
IHTTPSessionNotify, IHTTPStreamerSession

---

public class **HTTPStreamerSessionSanJose**
extends HTTPStreamerSessionBase
implements IHTTPStreamerSession, IHTTPSessionNotify

Fields inherited from class com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
acceptSession, appInstance, connectionHolder, cookieStr, DATEFORMAT, elapsedTime, fastDateFormat, fileInfoMap, firstCheck, httpHeaders, httpStreamerAdapter, ioPerformanceCounter, ipAddress, isActive, isHTTPOrigin, isPlayLogged, lastRequest, liveStreamingPacketizer, lock, mediaCasterStreamLock, notifyCreate, playDuration, playStart, properties, queryStr, redirectSession, redirectSessionBody, redirectSessionCode, redirectSessionContentType, redirectSessionURL, referrer, serverIp, serverPort, sessionId, sessionProtocol, sessionTimeout, sessionType, stream, streamDomainStrSet, streamExt, streamName, streamNamePartMap, streamPosition, timeoutSession, totalIOPerformance2Last, totalIOPerformanceLast, uri, userAgent, userHTTPHeaders, userQueryStr, vhost

Fields inherited from interface com.wowza.wms.httpstreamer.model.IHTTPStreamerSession
SESSIONPROTOCOL_COUNT, SESSIONPROTOCOL_CUPERTINOSTREAMING, SESSIONPROTOCOL_DVRCHUNKSTREAMING, SESSIONPROTOCOL_MPEGDASHSTREAMING, SESSIONPROTOCOL_SANJOSESTREAMING, SESSIONPROTOCOL_SMOOTHSTREAMING, SESSIONPROTOCOL_UNKNOWN, SESSIONPROTOCOL_WEBMSTREAMING, SESSIONTYPE_LIVE, SESSIONTYPE_LIVEDVR, SESSIONTYPE_UNKNOWN, SESSIONTYPE_VOD

Constructor Summary

public	HTTPStreamerSessionSanJose()

Method Summary

void	addFirstABSTRequest(String streamName)
void	clearLoggingValues()
boolean	containsIndex(String streamName)
static IHTTPStreamerSanJoseIndex	createIndexLive(IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName)

IHTTPStreamerSanJoseIndex	getIndex(IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName, long playStart, long playDuration, TimedTextRequest captionRequest)
IHTTPStreamerSanJoseIndex	getIndexLive(IHTTPStreamerApplicationContext appContext, IHTTPStreamerSession httpStreamerSession, String rawStreamName, String streamExt, String streamName)
boolean	isFirstABSTRequest(String streamName)
void	logLiveChunk(LiveStreamPacketizerSanJoseChunk chunk)
void	logVODChunk(LiveStreamPacketizerSanJoseChunk chunk)
void	notifyHTTPSessionCreate(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	notifyHTTPSessionDestroy(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	shutdown()
void	updateLoggingValues()

Methods inherited from class `com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase`

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr, addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues, containsStreamDomainStr, containsStreamNameParts, doSessionRedirect, extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder, getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPDate, getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr, getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamDomainStr, getStreamDomainStrList, getStreamExt, getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName, setStreamPosition, setThreadContext, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr, setValidated, setVHost, shutdown, shutdownLocked, touch, updateLoggingValues, validStreamDomainToString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.httpstreamer.model.IHTTPStreamerSession

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr, addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues, containsStreamDomainStr, containsStreamNameParts, doSessionRedirect, extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder, getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr, getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamExt, getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName, setStreamPosition, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr, setVHost, shutdown, touch, updateLoggingValues, validStreamDomainToString

Methods inherited from interface com.wowza.wms.httpstreamer.model.IHTTPSessionNotify

notifyHTTPSessionCreate, notifyHTTPSessionDestroy

Constructors

HTTPStreamerSessionSanJose

public **HTTPStreamerSessionSanJose**()

Methods

shutdown

public void **shutdown**()

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containsIndex

```
public boolean containsIndex(String streamName)
```

createIndexLive

```
public static IHTTPStreamerSanJoseIndex
createIndexLive(IHTTPStreamerApplicationContext appContext,
        IHTTPStreamerSession httpStreamerSession,
        String rawStreamName,
        String streamExt,
        String streamName)
```

getIndexLive

```
public IHTTPStreamerSanJoseIndex getIndexLive(IHTTPStreamerApplicationContext
appContext,
        IHTTPStreamerSession httpStreamerSession,
        String rawStreamName,
        String streamExt,
        String streamName)
```

getIndex

```
public IHTTPStreamerSanJoseIndex getIndex(IHTTPStreamerApplicationContext appContext,
        IHTTPStreamerSession httpStreamerSession,
        String rawStreamName,
        String streamExt,
        String streamName,
        long playStart,
        long playDuration,
        TimedTextRequest captionRequest)
```

updateLoggingValues

```
public void updateLoggingValues()
```

clearLoggingValues

```
public void clearLoggingValues()
```

logLiveChunk

```
public void logLiveChunk(LiveStreamPacketizerSanJoseChunk chunk)
```

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logVODChunk

```
public void logVODChunk(LiveStreamPacketizerSanJoseChunk chunk)
```

isFirstABSTRequest

```
public boolean isFirstABSTRequest(String streamName)
```

addFirstABSTRequest

```
public void addFirstABSTRequest(String streamName)
```

notifyHTTPSessionCreate

```
public void notifyHTTPSessionCreate(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

notifyHTTPSessionDestroy

```
public void notifyHTTPSessionDestroy(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

logVODChunk

```
public void logVODChunk(LiveStreamPacketizerSanJoseChunk chunk)
```

Package

com.wowza.wms.httpstreamer.smoothstream ing.httpstreamer

com.wowza.wms.httpstreamer.smoothstreaming.httpstreamer
Class HTTPStreamerSessionSmoothStreamer

```
java.lang.Object
    |
    +-com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
        |
        +-
com.wowza.wms.httpstreamer.smoothstreaming.httpstreamer.HTTPStreamerSessionSmoothStream
er
```

All Implemented Interfaces:
> [IHTTPSessionNotify](), [IHTTPStreamerSession]()

---

public class **HTTPStreamerSessionSmoothStreamer**
extends HTTPStreamerSessionBase
implements [IHTTPStreamerSession](), [IHTTPSessionNotify]()

Fields inherited from class com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
acceptSession, appInstance, connectionHolder, cookieStr, DATEFORMAT, elapsedTime, fastDateFormat, fileInfoMap, firstCheck, httpHeaders, httpStreamerAdapter, ioPerformanceCounter, ipAddress, isActive, isHTTPOrigin, isPlayLogged, lastRequest, liveStreamingPacketizer, lock, mediaCasterStreamLock, notifyCreate, playDuration, playStart, properties, queryStr, redirectSession, redirectSessionBody, redirectSessionCode, redirectSessionContentType, redirectSessionURL, referrer, serverIp, serverPort, sessionId, sessionProtocol, sessionTimeout, sessionType, stream, streamDomainStrSet, streamExt, streamName, streamNamePartMap, streamPosition, timeoutSession, totalIOPerformance2Last, totalIOPerformanceLast, uri, userAgent, userHTTPHeaders, userQueryStr, vhost

Fields inherited from interface [com.wowza.wms.httpstreamer.model.IHTTPStreamerSession]()
[SESSIONPROTOCOL_COUNT](), [SESSIONPROTOCOL_CUPERTINOSTREAMING](), [SESSIONPROTOCOL_DVRCHUNKSTREAMING](), [SESSIONPROTOCOL_MPEGDASHSTREAMING](), [SESSIONPROTOCOL_SANJOSESTREAMING](), [SESSIONPROTOCOL_SMOOTHSTREAMING](), [SESSIONPROTOCOL_UNKNOWN](), [SESSIONPROTOCOL_WEBMSTREAMING](), [SESSIONTYPE_LIVE](), [SESSIONTYPE_LIVEDVR](), [SESSIONTYPE_UNKNOWN](), [SESSIONTYPE_VOD]()

Constructor Summary

public	[HTTPStreamerSessionSmoothStreamer]()()

Method Summary

void	[clearLoggingValues]()()
boolean	[containsIndex]()(String streamName)
IHTTPStreamerSmoothStreamerIndex	[getIndex]()([IHTTPStreamerSession]() httpStreamerSession, [IHTTPStreamerApplicationContext]() appContext, String streamExt, String streamName, long playStart, long playDuration)

SmoothStreamingLivePlaylist	getLivePlaylist()
void	logLiveFragment(SmoothStreamerFragmentId fragmentId, PacketFragmentList fragmentData)
void	logVODFragment(SmoothStreamerFragmentId fragmentId, PacketFragmentList fragmentData)
void	notifyHTTPSessionCreate(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	notifyHTTPSessionDestroy(IApplicationInstance appInstance, IHTTPStreamerSession httpStreamerSession)
void	setLivePlaylist(SmoothStreamingLivePlaylist livePlaylist)
void	shutdown()
void	updateLoggingValues()

Methods inherited from class com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr, addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues, containsStreamDomainStr, containsStreamNameParts, doSessionRedirect, extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder, getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPDate, getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr, getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamDomainStr, getStreamDomainStrList, getStreamExt, getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName, setStreamPosition, setThreadContext, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr, setValidated, setVHost, shutdown, shutdownLocked, touch, updateLoggingValues, validStreamDomainToString

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.httpstreamer.model.IHTTPStreamerSession

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr, addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues, containsStreamDomainStr, containsStreamNameParts, doSessionRedirect, extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder, getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr, getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamExt, getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName, setStreamPosition, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr, setVHost, shutdown, touch, updateLoggingValues, validStreamDomainToString

Methods inherited from interface com.wowza.wms.httpstreamer.model.IHTTPSessionNotify

notifyHTTPSessionCreate, notifyHTTPSessionDestroy

Constructors

HTTPStreamerSessionSmoothStreamer

public **HTTPStreamerSessionSmoothStreamer**()

Methods

shutdown

public void **shutdown**()

containsIndex

public boolean **containsIndex**(String streamName)

getIndex

```
public IHTTPStreamerSmoothStreamerIndex getIndex(IHTTPStreamerSession
httpStreamerSession,
         IHTTPStreamerApplicationContext appContext,
         String streamExt,
         String streamName,
         long playStart,
         long playDuration)
```

updateLoggingValues

```
public void updateLoggingValues()
```

clearLoggingValues

```
public void clearLoggingValues()
```

getLivePlaylist

```
public SmoothStreamingLivePlaylist getLivePlaylist()
```

setLivePlaylist

```
public void setLivePlaylist(SmoothStreamingLivePlaylist livePlaylist)
```

logLiveFragment

```
public void logLiveFragment(SmoothStreamerFragmentId fragmentId,
         PacketFragmentList fragmentData)
```

logVODFragment

```
public void logVODFragment(SmoothStreamerFragmentId fragmentId,
         PacketFragmentList fragmentData)
```

notifyHTTPSessionCreate

```
public void notifyHTTPSessionCreate(IApplicationInstance appInstance,
         IHTTPStreamerSession httpStreamerSession)
```

notifyHTTPSessionDestroy

```
public void notifyHTTPSessionDestroy(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

notifyHTTPSessionDestroy

```
public void notifyHTTPSessionDestroy(IApplicationInstance appInstance,
        IHTTPStreamerSession httpStreamerSession)
```

Package

com.wowza.wms.httpstreamer.webmstreaming.httpstreamer

com.wowza.wms.httpstreamer.webmstreaming.httpstreamer
Class HTTPStreamerSessionWebM

```
java.lang.Object
   │
   +-com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
      │
      +-com.wowza.wms.httpstreamer.webmstreaming.httpstreamer.HTTPStreamerSessionWebM
```

All Implemented Interfaces:
> [IHTTPStreamerSession](#)

---

public class **HTTPStreamerSessionWebM**
extends HTTPStreamerSessionBase

Fields inherited from class com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase
acceptSession, appInstance, connectionHolder, cookieStr, DATEFORMAT, elapsedTime, fastDateFormat, fileInfoMap, firstCheck, httpHeaders, httpStreamerAdapter, ioPerformanceCounter, ipAddress, isActive, isHTTPOrigin, isPlayLogged, lastRequest, liveStreamingPacketizer, lock, mediaCasterStreamLock, notifyCreate, playDuration, playStart, properties, queryStr, redirectSession, redirectSessionBody, redirectSessionCode, redirectSessionContentType, redirectSessionURL, referrer, serverIp, serverPort, sessionId, sessionProtocol, sessionTimeout, sessionType, stream, streamDomainStrSet, streamExt, streamName, streamNamePartMap, streamPosition, timeoutSession, totalIOPerformance2Last, totalIOPerformanceLast, uri, userAgent, userHTTPHeaders, userQueryStr, vhost

Fields inherited from interface com.wowza.wms.httpstreamer.model.IHTTPStreamerSession
SESSIONPROTOCOL_COUNT, SESSIONPROTOCOL_CUPERTINOSTREAMING, SESSIONPROTOCOL_DVRCHUNKSTREAMING, SESSIONPROTOCOL_MPEGDASHSTREAMING, SESSIONPROTOCOL_SANJOSESTREAMING, SESSIONPROTOCOL_SMOOTHSTREAMING, SESSIONPROTOCOL_UNKNOWN, SESSIONPROTOCOL_WEBMSTREAMING, SESSIONTYPE_LIVE, SESSIONTYPE_LIVEDVR, SESSIONTYPE_UNKNOWN, SESSIONTYPE_VOD

Constructor Summary

public	[HTTPStreamerSessionWebM](#)()

Method Summary

WebMPacketizerSessionTracker	[getSessionTracker](#)()
void	[setSessionTracker](#)(WebMPacketizerSessionTracker sessionTracker)
void	[shutdown](#)()

Methods inherited from class com.wowza.wms.httpstreamer.model.HTTPStreamerSessionBase

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr,
addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues,
containsStreamDomainStr, containsStreamNameParts, doSessionRedirect,
extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder,
getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPDate,
getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader,
getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest,
getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties,
getQueryStr, getRedirectSessionBody, getRedirectSessionCode,
getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp,
getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType,
getStream, getStreamDomainStr, getStreamDomainStrList, getStreamExt, getStreamName,
getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri,
getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession,
isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout,
isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams,
putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession,
removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr,
setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress,
setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart,
setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode,
setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp,
setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType,
setStream, setStreamExt, setStreamName, setStreamPosition, setThreadContext,
setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr,
setValidated, setVHost, shutdown, shutdownLocked, touch, updateLoggingValues,
validStreamDomainToString

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait

Methods inherited from interface `com.wowza.wms.httpstreamer.model.IHTTPStreamerSession`

acceptSession, addIOPerformance, addIOPerformance2, addStreamDomainStr, addStreamDomainStrs, addUserHTTPHeaders, checkAndSetPlayLogged, clearLoggingValues, containsStreamDomainStr, containsStreamNameParts, doSessionRedirect, extractHTTPRequestInfo, getAndClearNotifyCreate, getAppInstance, getConnectionHolder, getCookieStr, getDvrSessionInfo, getElapsedTime, getFileInfo, getHTTPHeader, getHTTPHeaderMap, getHTTPHeaderNames, getHTTPIntHeader, getHTTPStreamerAdapter, getIOPerformanceCounter, getIpAddress, getLastRequest, getLiveStreamingPacketizer, getLock, getPlayDuration, getPlayStart, getProperties, getQueryStr, getRedirectSessionBody, getRedirectSessionCode, getRedirectSessionContentType, getRedirectSessionURL, getReferrer, getServerIp, getServerPort, getSessionId, getSessionProtocol, getSessionTimeout, getSessionType, getStream, getStreamExt, getStreamName, getStreamNameParts, getStreamPosition, getTimeRunning, getTimeRunningSeconds, getUri, getUserAgent, getUserHTTPHeaders, getUserQueryStr, getVHost, isAcceptSession, isActive, isFileInfo, isHTTPOrigin, isPlayLogged, isRedirectSession, isTimeout, isTimeoutSession, isValidated, isValidStreamDomainStr, lockRepeaterStreams, putFileInfo, putStreamNameParts, redirectSession, redirectSession, rejectSession, removeStreamDomainStr, setAcceptSession, setActive, setAppInstance, setCookieStr, setDvrSessionInfo, setHTTPOrigin, setHTTPStreamerAdapter, setIpAddress, setLiveStreamingPacketizer, setPlayDuration, setPlayLogged, setPlayStart, setQueryStr, setRedirectSession, setRedirectSessionBody, setRedirectSessionCode, setRedirectSessionContentType, setRedirectSessionURL, setReferrer, setServerIp, setServerPort, setSessionId, setSessionProtocol, setSessionTimeout, setSessionType, setStream, setStreamExt, setStreamName, setStreamPosition, setTimeoutSession, setUri, setUserAgent, setUserHTTPHeader, setUserQueryStr, setVHost, shutdown, touch, updateLoggingValues, validStreamDomainToString

Constructors

HTTPStreamerSessionWebM

public **HTTPStreamerSessionWebM**()

Methods

getSessionTracker

public WebMPacketizerSessionTracker **getSessionTracker**()

setSessionTracker

public void **setSessionTracker**(WebMPacketizerSessionTracker sessionTracker)

shutdown

public void **shutdown**()

Package

com.wowza.wms.livestreamrecord.http

com.wowza.wms.livestreamrecord.http
Class HTTPLiveStreamRecord

```
java.lang.Object
    │
    +-com.wowza.wms.http.HTTPProvider2Base
          │
          +-com.wowza.wms.livestreamrecord.http.HTTPLiveStreamRecord
```
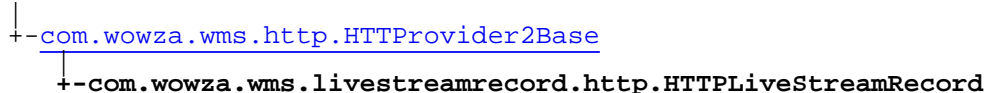
All Implemented Interfaces:
com.wowza.wms.livestreamrecord.streamnamerecorder.ILiveStreamRecordStreamNameRecorderActionNotify,
IHTTPProvider2

---

public class **HTTPLiveStreamRecord**
extends HTTPProvider2Base
implements IHTTPProvider2,
com.wowza.wms.livestreamrecord.streamnamerecorder.ILiveStreamRecordStreamNameRecorderActionNotify

---

Field Summary

public static final	FORMAT_FLV	
	Value: 1	
public static final	FORMAT_MP4	
	Value: 2	
public static final	FORMAT_UNKNOWN	
	Value: 0	

Fields inherited from class com.wowza.wms.http.HTTPProvider2Base

authenticateHandler, authenticateHTTPProviderHandler, authenticationMethod, filters, properties, requestFilters

Constructor Summary

public	HTTPLiveStreamRecord()

Method Summary

static String	HTMLEncode(String s)
void	init()
void	onBind(IVHost vhost, HostPort hostPort)
void	onHTTPRequest(IVHost vhost, IHTTPRequest req, IHTTPResponse resp)

---

void	onStartRecord(IApplicationInstance appInstance, IMediaStream stream, String streamName, Object opaque)
void	onStopRecord(IApplicationInstance appInstance, IMediaStream stream, String streamName, Object opaque)
void	onSwitchRecord(IApplicationInstance appInstance, IMediaStream streamOld, IMediaStream streamNew, String streamName, Object opaque)

Methods inherited from class com.wowza.wms.http.HTTPProvider2Base

canHandle, doHTTPAuthentication, getAuthenticationMethod, getPath, getRequestFilters, init, onBind, onUnbind, setAuthenticationMethod, setProperties, setRequestFilters

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.http.IHTTPProvider2

canHandle, getAuthenticationMethod, getRequestFilters, init, setAuthenticationMethod, setRequestFilters

Methods inherited from interface com.wowza.wms.http.IHTTPProvider

onBind, onHTTPRequest, onUnbind, setProperties

Methods inherited from interface com.wowza.wms.livestreamrecord.streamnamerecorder.ILiveStreamRecordStreamNameRecorderActionNotify

onStartRecord, onStopRecord, onSwitchRecord

Fields

FORMAT_UNKNOWN

public static final int **FORMAT_UNKNOWN**

Constant value: **0**

FORMAT_FLV

public static final int **FORMAT_FLV**

Constant value: **1**

FORMAT_MP4

public static final int **FORMAT_MP4**

Constant value: **2**

Constructors

HTTPLiveStreamRecord

```
public HTTPLiveStreamRecord()
```

Methods

HTMLEncode

```
public static String HTMLEncode(String s)
```

init

```
public void init()
```

> Initialize the HTTPProvider

onBind

```
public void onBind(IVHost vhost,
        HostPort hostPort)
```

> Called when bind is called on port

onHTTPRequest

```
public void onHTTPRequest(IVHost vhost,
        IHTTPRequest req,
        IHTTPResponse resp)
```

onStartRecord

```
public void onStartRecord(IApplicationInstance appInstance,
        IMediaStream stream,
        String streamName,
        Object opaque)
```

onSwitchRecord

```
public void onSwitchRecord(IApplicationInstance appInstance,
        IMediaStream streamOld,
        IMediaStream streamNew,
        String streamName,
        Object opaque)
```

onStopRecord

```
public void onStopRecord(IApplicationInstance appInstance,
        IMediaStream stream,
        String streamName,
        Object opaque)
```

onStopRecord

```
public void onStopRecord(IApplicationInstance appInstance,
        IMediaStream stream,
```

Package

com.wowza.wms.livestreamrecord.model

com.wowza.wms.livestreamrecord.model
Interface ILiveStreamRecord

All Known Implementing Classes:

LiveStreamRecorderBase

public interface **ILiveStreamRecord**
extends

Field Summary

public static final	SPLIT_ON_DISCONTINUITY_ALWAYS Value: **1**
public static final	SPLIT_ON_DISCONTINUITY_DEFAULT Value: **0**
public static final	SPLIT_ON_DISCONTINUITY_NEVER Value: **2**
public static final	SPLIT_TYPE_BY_DURATION Value: **3**
public static final	SPLIT_TYPE_BY_SCHEDULE Value: **1**
public static final	SPLIT_TYPE_BY_SIZE Value: **2**
public static final	SPLIT_TYPE_NONE Value: **0**

Method Summary

ILiveStreamRecordNotify	addListener(ILiveStreamRecordNotify listener)
String	getBaseFilePath()
long	getCurrentDuration()
String	getCurrentFile()
long	getCurrentSize()
String	getFilePath()

ILiveStreamRecordFile VersionDelegate	getFileVersionDelegate()
long	getSegmentDuration()
int	getSegmentNumber()
CrontabEvent	getSegmentSchedule()
long	getSegmentSize()
int	getSplitType()
org.joda.time.DateTim e	getStartTime()
String	getStreamName()
Object	getWriteLock()
void	init(IApplicationInstance appInstance)
boolean	isAppendFile()
boolean	isMoveFirstVideoFrameToZero()
boolean	isRecordData()
boolean	isStartOnKeyFrame()
boolean	isVersionFile()
void	onPublish()
void	onUnPublish()
boolean	removeListener(ILiveStreamRecordNotify listener)
void	setFileVersionDelegate(ILiveStreamRecordFileVersionDelegate delegate)
void	setMoveFirstVideoFrameToZero(boolean moveFirstVideoFrameToZero)
void	setRecordData(boolean recordData)
void	setSegmentDuration(long duration)
void	setSegmentSize(long size)
void	setStartOnKeyFrame(boolean startOnKeyFrame)

void	setVersionFile(boolean versionFile)
void	splitRecordingNow()
void	startRecording(IMediaStream stream, boolean append)
void	startRecording(IMediaStream stream, String filePath, boolean append)
void	startRecording(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata)
void	startRecording(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata, int splitOnTcDiscontiuity)
void	startRecordingSegmentByDuration(IMediaStream stream, String filePath, java.util.Map extraMetadata, long duration)
void	startRecordingSegmentBySchedule(IMediaStream stream, String filePath, java.util.Map extraMetadata, String schedule)
void	startRecordingSegmentBySize(IMediaStream stream, String filePath, java.util.Map extraMetadata, long size)
void	stopRecording()
void	work()
void	workStop()

Fields

SPLIT_TYPE_NONE

public static final int **SPLIT_TYPE_NONE**

Constant value: **0**

SPLIT_TYPE_BY_SCHEDULE

public static final int **SPLIT_TYPE_BY_SCHEDULE**

Constant value: **1**

SPLIT_TYPE_BY_SIZE

public static final int **SPLIT_TYPE_BY_SIZE**

Constant value: **2**

SPLIT_TYPE_BY_DURATION

public static final int **SPLIT_TYPE_BY_DURATION**

Constant value: **3**

SPLIT_ON_DISCONTINUITY_DEFAULT

public static final int **SPLIT_ON_DISCONTINUITY_DEFAULT**

Constant value: **0**

SPLIT_ON_DISCONTINUITY_ALWAYS

public static final int **SPLIT_ON_DISCONTINUITY_ALWAYS**

Constant value: **1**

SPLIT_ON_DISCONTINUITY_NEVER

public static final int **SPLIT_ON_DISCONTINUITY_NEVER**

Constant value: **2**

Methods

init

public void **init**([IApplicationInstance](#) appInstance)

startRecording

public void **startRecording**([IMediaStream](#) stream,
        boolean append)

startRecording

public void **startRecording**([IMediaStream](#) stream,
        String filePath,
        boolean append)

getFilePath

public String **getFilePath**()

isStartOnKeyFrame

```
public boolean isStartOnKeyFrame()
```

setStartOnKeyFrame

```
public void setStartOnKeyFrame(boolean startOnKeyFrame)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata,
        int splitOnTcDiscontiuity)
```

startRecordingSegmentBySize

```
public void startRecordingSegmentBySize(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        long size)
```

startRecordingSegmentByDuration

```
public void startRecordingSegmentByDuration(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        long duration)
```

startRecordingSegmentBySchedule

```
public void startRecordingSegmentBySchedule(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        String schedule)
```

stopRecording

```
public void stopRecording()
```

onPublish

```
public void onPublish()
```

onUnPublish

```
public void onUnPublish()
```

workStop

```
public void workStop()
```

work

```
public void work()
```

isRecordData

```
public boolean isRecordData()
```

setRecordData

```
public void setRecordData(boolean recordData)
```

isVersionFile

```
public boolean isVersionFile()
```

setVersionFile

```
public void setVersionFile(boolean versionFile)
```

isAppendFile

```
public boolean isAppendFile()
```

getWriteLock

```
public Object getWriteLock()
```

isMoveFirstVideoFrameToZero

```
public boolean isMoveFirstVideoFrameToZero()
```

setMoveFirstVideoFrameToZero

```
public void setMoveFirstVideoFrameToZero(boolean moveFirstVideoFrameToZero)
```

setFileVersionDelegate

```
public void setFileVersionDelegate(ILiveStreamRecordFileVersionDelegate delegate)
```

getFileVersionDelegate

```
public ILiveStreamRecordFileVersionDelegate getFileVersionDelegate()
```

splitRecordingNow

```
public void splitRecordingNow()
```

getSplitType

```
public int getSplitType()
```

getSegmentSize

```
public long getSegmentSize()
```

getSegmentDuration

```
public long getSegmentDuration()
```

getCurrentSize

```
public long getCurrentSize()
```

getCurrentDuration

```
public long getCurrentDuration()
```

setSegmentSize

```
public void setSegmentSize(long size)
```

setSegmentDuration

```
public void setSegmentDuration(long duration)
```

getBaseFilePath

```
public String getBaseFilePath()
```

getCurrentFile

```
public String getCurrentFile()
```

getSegmentSchedule

```
public CrontabEvent getSegmentSchedule()
```

getStreamName

```
public String getStreamName()
```

getSegmentNumber

```
public int getSegmentNumber()
```

getStartTime

```
public org.joda.time.DateTime getStartTime()
```

addListener

```
public ILiveStreamRecordNotify addListener(ILiveStreamRecordNotify listener)
```

removeListener

```
public boolean removeListener(ILiveStreamRecordNotify listener)
```

```
public ILiveStreamRecordNotify addListener(ILiveStreamRecordNotify listener)
```

com.wowza.wms.livestreamrecord.model
Interface ILiveStreamRecordFileVersionDelegate

All Known Implementing Classes:
> LiveStreamRecordFileVersionDelegate

---

public interface **ILiveStreamRecordFileVersionDelegate**
extends

Method Summary

String	`getFilename(ILiveStreamRecord recorder)`

Methods

getFilename

public String **getFilename**(`ILiveStreamRecord` recorder)

com.wowza.wms.livestreamrecord.model
Interface ILiveStreamRecordNotify

public interface **ILiveStreamRecordNotify**
extends

Method Summary

void	onSegmentEnd(ILiveStreamRecord recorder)
void	onSegmentStart(ILiveStreamRecord recorder)

Methods

onSegmentStart

public void **onSegmentStart**(ILiveStreamRecord recorder)

onSegmentEnd

public void **onSegmentEnd**(ILiveStreamRecord recorder)

com.wowza.wms.livestreamrecord.model
Class LiveStreamRecordActionNotifier

```
java.lang.Object
    |
    +-com.wowza.wms.livestreamrecord.model.LiveStreamRecordActionNotifier
```

All Implemented Interfaces:
> IMediaStreamActionNotify

---

public class **LiveStreamRecordActionNotifier**
extends Object
implements IMediaStreamActionNotify

Method Summary

void	onPause(IMediaStream stream, boolean isPause, double location)	
void	onPlay(IMediaStream stream, String streamName, double playStart, double playLen, int playReset)	
void	onPublish(IMediaStream stream, String streamName, boolean isRecord, boolean isAppend)	
void	onSeek(IMediaStream stream, double location)	
void	onStop(IMediaStream stream)	
void	onUnPublish(IMediaStream stream, String streamName, boolean isRecord, boolean isAppend)	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `com.wowza.wms.stream.IMediaStreamActionNotify`

onPause, onPlay, onPublish, onSeek, onStop, onUnPublish

Methods

onPause

```
public void onPause(IMediaStream stream,
        boolean isPause,
        double location)
```

---

onPlay

```
public void onPlay(IMediaStream stream,
        String streamName,
        double playStart,
        double playLen,
        int playReset)
```

onPublish

```
public void onPublish(IMediaStream stream,
        String streamName,
        boolean isRecord,
        boolean isAppend)
```

onSeek

```
public void onSeek(IMediaStream stream,
        double location)
```

onStop

```
public void onStop(IMediaStream stream)
```

onUnPublish

```
public void onUnPublish(IMediaStream stream,
        String streamName,
        boolean isRecord,
        boolean isAppend)
```

com.wowza.wms.livestreamrecord.model
Class LiveStreamRecorderBase

```
java.lang.Object
   │
   +-com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase
```

All Implemented Interfaces:
    ICrontabEventHandler, ILiveStreamRecord

Direct Known Subclasses:
    LiveStreamRecorderMediaWriter, LiveStreamRecorderMP4, LiveStreamRecorderFLV

---

public class **LiveStreamRecorderBase**
extends Object
implements ILiveStreamRecord, ICrontabEventHandler

Field Summary

protected	appendFile
protected	appInstance
protected	baseFilePath
protected	contextStr
protected	cronEventWorker
protected	currentDuration
protected	currentOutputFile
protected	currentSize
protected	debugLog
protected	file
protected	filePath
protected	fileVersionDelegate
protected	listeners
protected	moveFirstVideoFrameToZero

	protected	recordData
	protected	recordStartTime
	protected	segmentDuration
	protected	segmentNumber
	protected	segmentScheduler
	protected	segmentSize
	protected	splitNow
	protected	splitOnTcDiscontinuity
	protected	splitType
	protected	startOnKeyFrame
	protected	stream
	protected	streamNotifier
	protected	useSimpleFileVersionNaming
	protected	versionFile
	protected	worker
	protected	writeLock

Fields inherited from interface com.wowza.wms.livestreamrecord.model.ILiveStreamRecord

SPLIT_ON_DISCONTINUITY_ALWAYS, SPLIT_ON_DISCONTINUITY_DEFAULT,
SPLIT_ON_DISCONTINUITY_NEVER, SPLIT_TYPE_BY_DURATION, SPLIT_TYPE_BY_SCHEDULE,
SPLIT_TYPE_BY_SIZE, SPLIT_TYPE_NONE

Constructor Summary

public	LiveStreamRecorderBase()

Method Summary

ILiveStreamRecordNotify	addListener(ILiveStreamRecordNotify listener)
	Add ILiveStreamRecordNotify listener
void	debug(Class c, String string)

String	getBaseFilePath()
long	getCurrentDuration()
String	getCurrentFile()
long	getCurrentSize()
String	getFilePath()
ILiveStreamRecordFile VersionDelegate	getFileVersionDelegate()
java.util.List	getLocalListeners() Get a list of ILiveStreamRecordNotify listeners
long	getSegmentDuration()
int	getSegmentNumber()
CrontabEvent	getSegmentSchedule()
long	getSegmentSize()
int	getSplitType()
org.joda.time.DateTime	getStartTime()
String	getStreamName()
Object	getWriteLock()
void	init(IApplicationInstance appInstance)
boolean	isAppendFile()
boolean	isMoveFirstVideoFrameToZero()
boolean	isRecordData()
boolean	isStartOnKeyFrame()
boolean	isVersionFile()
void	notifySegmentEnd(ILiveStreamRecord recorder) Notify segment end
void	notifySegmentStart(ILiveStreamRecord recorder) Notify segment start

void	**onCronEvent**(CrontabEvent event) handles segmentBySchedule timer events
void	**onPublish**()
void	**onUnPublish**()
boolean	**removeListener**(ILiveStreamRecordNotify listener) remove ILiveStreamRecordNotify listener
void	**setFileVersionDelegate**(ILiveStreamRecordFileVersionDelegate delegate)
void	**setMoveFirstVideoFrameToZero**(boolean moveFirstVideoFrameToZero)
void	**setRecordData**(boolean recordData)
void	**setSegmentDuration**(long duration) Allows the changing of the segmentDuration without the need to stop an active recording
void	**setSegmentSize**(long size) Allows the changing of the segmentSize without the need to stop an active recording
void	**setStartOnKeyFrame**(boolean startOnKeyFrame)
void	**setVersionFile**(boolean versionFile)
void	**splitRecordingNow**()
void	**startRecording**(IMediaStream stream, boolean append)
void	**startRecording**(IMediaStream stream, String filePath, boolean append)
void	**startRecording**(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata)
void	**startRecording**(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata, int splitOnTcDiscontinuity)
void	**startRecordingSegmentByDuration**(IMediaStream stream, String filePath, java.util.Map extraMetadata, long duration)
void	**startRecordingSegmentBySchedule**(IMediaStream stream, String filePath, java.util.Map extraMetadata, String schedule)
void	**startRecordingSegmentBySize**(IMediaStream stream, String filePath, java.util.Map extraMetadata, long size)
void	**stopRecording**()
void	**work**()
void	**workStop**()

Methods inherited from class `java.lang.Object`
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface [com.wowza.wms.livestreamrecord.model.ILiveStreamRecord](#)
[addListener](#), [getBaseFilePath](#), [getCurrentDuration](#), [getCurrentFile](#), [getCurrentSize](#), [getFilePath](#), [getFileVersionDelegate](#), [getSegmentDuration](#), [getSegmentNumber](#), [getSegmentSchedule](#), [getSegmentSize](#), [getSplitType](#), [getStartTime](#), [getStreamName](#), [getWriteLock](#), [init](#), [isAppendFile](#), [isMoveFirstVideoFrameToZero](#), [isRecordData](#), [isStartOnKeyFrame](#), [isVersionFile](#), [onPublish](#), [onUnPublish](#), [removeListener](#), [setFileVersionDelegate](#), [setMoveFirstVideoFrameToZero](#), [setRecordData](#), [setSegmentDuration](#), [setSegmentSize](#), [setStartOnKeyFrame](#), [setVersionFile](#), [splitRecordingNow](#), [startRecording](#), [startRecording](#), [startRecording](#), [startRecording](#), [startRecordingSegmentByDuration](#), [startRecordingSegmentBySchedule](#), [startRecordingSegmentBySize](#), [stopRecording](#), [work](#), [workStop](#)

Methods inherited from interface [com.wowza.wms.util.crontab.ICrontabEventHandler](#)
[onCronEvent](#)

Fields

worker

protected com.wowza.wms.livestreamrecord.model.LiveStreamRecorderWorker **worker**

filePath

protected java.lang.String **filePath**

stream

protected com.wowza.wms.stream.IMediaStream **stream**

appInstance

protected com.wowza.wms.application.IApplicationInstance **appInstance**

streamNotifier

protected com.wowza.wms.livestreamrecord.model.LiveStreamRecordActionNotifier **streamNotifier**

writeLock

```
protected java.lang.Object writeLock
```

recordData

```
protected boolean recordData
```

versionFile

```
protected boolean versionFile
```

appendFile

```
protected boolean appendFile
```

startOnKeyFrame

```
protected boolean startOnKeyFrame
```

moveFirstVideoFrameToZero

```
protected boolean moveFirstVideoFrameToZero
```

fileVersionDelegate

```
protected com.wowza.wms.livestreamrecord.model.ILiveStreamRecordFileVersionDelegate
fileVersionDelegate
```

baseFilePath

```
protected java.lang.String baseFilePath
```

splitType

```
protected int splitType
```

splitNow

protected boolean **splitNow**

segmentSize

protected long **segmentSize**

segmentDuration

protected long **segmentDuration**

currentSize

protected long **currentSize**

currentDuration

protected long **currentDuration**

segmentScheduler

protected com.wowza.wms.util.crontab.CrontabEvent **segmentScheduler**

cronEventWorker

protected com.wowza.wms.livestreamrecord.model.LiveStreamRecordCronEventWorker **cronEventWorker**

listeners

protected java.util.List **listeners**

file

protected java.io.File **file**

segmentNumber

protected int **segmentNumber**

recordStartTime

```
protected org.joda.time.DateTime recordStartTime
```

debugLog

```
protected boolean debugLog
```

contextStr

```
protected java.lang.String contextStr
```

currentOutputFile

```
protected java.lang.String currentOutputFile
```

splitOnTcDiscontinuity

```
protected boolean splitOnTcDiscontinuity
```

useSimpleFileVersionNaming

```
protected boolean useSimpleFileVersionNaming
```

Constructors

LiveStreamRecorderBase

```
public LiveStreamRecorderBase()
```

Methods

init

```
public void init(IApplicationInstance appInstance)
```

getSplitType

```
public int getSplitType()
```

getSegmentSize

`public long getSegmentSize()`

getSegmentDuration

`public long getSegmentDuration()`

getCurrentSize

`public long getCurrentSize()`

getCurrentDuration

`public long getCurrentDuration()`

setSegmentSize

`public void setSegmentSize(long size)`

Allows the changing of the segmentSize without the need to stop an active recording

Parameters:
`size` - long new maximum size for recording segments

setSegmentDuration

`public void setSegmentDuration(long duration)`

Allows the changing of the segmentDuration without the need to stop an active recording

Parameters:
`duration` - long new maximum duration for recording segments

getSegmentSchedule

`public CrontabEvent getSegmentSchedule()`

getSegmentNumber

`public int getSegmentNumber()`

getBaseFilePath

```
public String getBaseFilePath()
```

getCurrentFile

```
public String getCurrentFile()
```

setFileVersionDelegate

```
public void setFileVersionDelegate(ILiveStreamRecordFileVersionDelegate delegate)
```

getFileVersionDelegate

```
public ILiveStreamRecordFileVersionDelegate getFileVersionDelegate()
```

getFilePath

```
public String getFilePath()
```

getStreamName

```
public String getStreamName()
```

getStartTime

```
public org.joda.time.DateTime getStartTime()
```

isStartOnKeyFrame

```
public boolean isStartOnKeyFrame()
```

setStartOnKeyFrame

```
public void setStartOnKeyFrame(boolean startOnKeyFrame)
```

isRecordData

```
public boolean isRecordData()
```

setRecordData

public void **setRecordData**(boolean recordData)

isVersionFile

public boolean **isVersionFile**()

setVersionFile

public void **setVersionFile**(boolean versionFile)

isAppendFile

public boolean **isAppendFile**()

getWriteLock

public Object **getWriteLock**()

isMoveFirstVideoFrameToZero

public boolean **isMoveFirstVideoFrameToZero**()

setMoveFirstVideoFrameToZero

public void **setMoveFirstVideoFrameToZero**(boolean moveFirstVideoFrameToZero)

splitRecordingNow

public void **splitRecordingNow**()

addListener

public [ILiveStreamRecordNotify](#) **addListener**([ILiveStreamRecordNotify](#) listener)

Add ILiveStreamRecordNotify listener

Parameters:
listener - ILiveStreamRecordNotify listener

removeListener

`public boolean` **`removeListener`**`(`[`ILiveStreamRecordNotify`](#)` listener)`

remove ILiveStreamRecordNotify listener

Parameters:
    `listener` - ILiveStreamRecordNotify listener

Returns:
    true if removed

onCronEvent

`public void` **`onCronEvent`**`(`[`CrontabEvent`](#)` event)`

handles segmentBySchedule timer events

Parameters:
    `event` - CrontabEvent which caused the timer to fire

getLocalListeners

`protected java.util.List` **`getLocalListeners`**`()`

Get a list of ILiveStreamRecordNotify listeners

Returns:
    list of ILiveStreamRecordNotify listeners

notifySegmentStart

`protected void` **`notifySegmentStart`**`(`[`ILiveStreamRecord`](#)` recorder)`

Notify segment start

Parameters:
    `recorder` - liveStreamRecord instance

notifySegmentEnd

`protected void` **`notifySegmentEnd`**`(`[`ILiveStreamRecord`](#)` recorder)`

Notify segment end

Parameters:
    `recorder` - liveStreamRecord instance

debug

`protected void` **`debug`**`(Class c,`
        `String string)`

startRecording

```
public void startRecording(IMediaStream stream,
        boolean append)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata,
        int splitOnTcDiscontinuity)
```

startRecordingSegmentBySize

```
public void startRecordingSegmentBySize(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        long size)
```

startRecordingSegmentByDuration

```
public void startRecordingSegmentByDuration(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        long duration)
```

startRecordingSegmentBySchedule

```
public void startRecordingSegmentBySchedule(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        String schedule)
```

stopRecording

```
public void stopRecording()
```

onPublish

```
public void onPublish()
```

onUnPublish

```
public void onUnPublish()
```

workStop

```
public void workStop()
```

work

```
public void work()
```

com.wowza.wms.livestreamrecord.model
Class LiveStreamRecorderFLV

```
java.lang.Object
     |
     +-com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase
           |
           +-com.wowza.wms.livestreamrecord.model.LiveStreamRecorderFLV
```
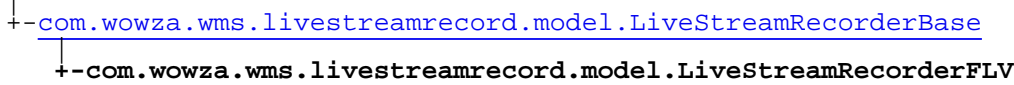
All Implemented Interfaces:
    ICrontabEventHandler, ILiveStreamRecord

---

public class **LiveStreamRecorderFLV**
extends LiveStreamRecorderBase

Fields inherited from class com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase
appendFile, appInstance, baseFilePath, contextStr, cronEventWorker, currentDuration, currentOutputFile, currentSize, debugLog, file, filePath, fileVersionDelegate, listeners, moveFirstVideoFrameToZero, recordData, recordStartTime, segmentDuration, segmentNumber, segmentScheduler, segmentSize, splitNow, splitOnTcDiscontinuity, splitType, startOnKeyFrame, stream, streamNotifier, useSimpleFileVersionNaming, versionFile, worker, writeLock

Fields inherited from interface com.wowza.wms.livestreamrecord.model.ILiveStreamRecord
SPLIT_ON_DISCONTINUITY_ALWAYS, SPLIT_ON_DISCONTINUITY_DEFAULT, SPLIT_ON_DISCONTINUITY_NEVER, SPLIT_TYPE_BY_DURATION, SPLIT_TYPE_BY_SCHEDULE, SPLIT_TYPE_BY_SIZE, SPLIT_TYPE_NONE

Constructor Summary

public	LiveStreamRecorderFLV()

Method Summary

java.util.List	getPlayPackets()
void	onPublish()
void	onUnPublish()
void	startRecording(IMediaStream stream, boolean append)
void	startRecording(IMediaStream stream, String filePath, boolean append)
void	startRecording(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata)
void	startRecording(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata, int splitOnTcDiscontinuity)

---

void	startRecordingSegmentByDuration(IMediaStream stream, String filePath, java.util.Map extraMetadata, long duration)	
void	startRecordingSegmentBySchedule(IMediaStream stream, String filePath, java.util.Map extraMetadata, String schedule)	
void	startRecordingSegmentBySize(IMediaStream stream, String filePath, java.util.Map extraMetadata, long size)	
void	stopRecording()	
void	work()	
void	workStop()	

Methods inherited from class com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase

addListener, debug, getBaseFilePath, getCurrentDuration, getCurrentFile, getCurrentSize, getFilePath, getFileVersionDelegate, getLocalListeners, getSegmentDuration, getSegmentNumber, getSegmentSchedule, getSegmentSize, getSplitType, getStartTime, getStreamName, getWriteLock, init, isAppendFile, isMoveFirstVideoFrameToZero, isRecordData, isStartOnKeyFrame, isVersionFile, notifySegmentEnd, notifySegmentStart, onCronEvent, onPublish, onUnPublish, removeListener, setFileVersionDelegate, setMoveFirstVideoFrameToZero, setRecordData, setSegmentDuration, setSegmentSize, setStartOnKeyFrame, setVersionFile, splitRecordingNow, startRecording, startRecording, startRecording, startRecording, startRecordingSegmentByDuration, startRecordingSegmentBySchedule, startRecordingSegmentBySize, stopRecording, work, workStop

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.livestreamrecord.model.ILiveStreamRecord

addListener, getBaseFilePath, getCurrentDuration, getCurrentFile, getCurrentSize, getFilePath, getFileVersionDelegate, getSegmentDuration, getSegmentNumber, getSegmentSchedule, getSegmentSize, getSplitType, getStartTime, getStreamName, getWriteLock, init, isAppendFile, isMoveFirstVideoFrameToZero, isRecordData, isStartOnKeyFrame, isVersionFile, onPublish, onUnPublish, removeListener, setFileVersionDelegate, setMoveFirstVideoFrameToZero, setRecordData, setSegmentDuration, setSegmentSize, setStartOnKeyFrame, setVersionFile, splitRecordingNow, startRecording, startRecording, startRecording, startRecording, startRecordingSegmentByDuration, startRecordingSegmentBySchedule, startRecordingSegmentBySize, stopRecording, work, workStop

Methods inherited from interface com.wowza.wms.util.crontab.ICrontabEventHandler

onCronEvent

Constructors

LiveStreamRecorderFLV

```
public LiveStreamRecorderFLV()
```

Methods

startRecording

```
public void startRecording(IMediaStream stream,
        boolean append)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append)
```

startRecordingSegmentBySize

```
public void startRecordingSegmentBySize(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        long size)
```

startRecordingSegmentByDuration

```
public void startRecordingSegmentByDuration(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        long duration)
```

startRecordingSegmentBySchedule

```
public void startRecordingSegmentBySchedule(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        String schedule)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata,
        int splitOnTcDiscontinuity)
```

stopRecording

```
public void stopRecording()
```

onPublish

```
public void onPublish()
```

onUnPublish

```
public void onUnPublish()
```

workStop

```
public void workStop()
```

getPlayPackets

```
protected java.util.List getPlayPackets()
```

work

```
public void work()
```

com.wowza.wms.livestreamrecord.model
Class LiveStreamRecorderMediaWriter

```
java.lang.Object
    │
    +-com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase
        │
        +-com.wowza.wms.livestreamrecord.model.LiveStreamRecorderMediaWriter
```
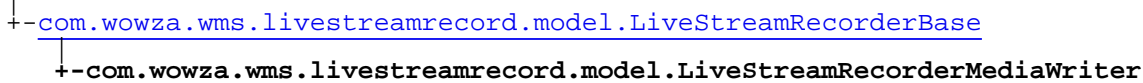
All Implemented Interfaces:
      ICrontabEventHandler, ILiveStreamRecord

---

public class **LiveStreamRecorderMediaWriter**
extends LiveStreamRecorderBase

Fields inherited from class com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase
appendFile, appInstance, baseFilePath, contextStr, cronEventWorker, currentDuration, currentOutputFile, currentSize, debugLog, file, filePath, fileVersionDelegate, listeners, moveFirstVideoFrameToZero, recordData, recordStartTime, segmentDuration, segmentNumber, segmentScheduler, segmentSize, splitNow, splitOnTcDiscontinuity, splitType, startOnKeyFrame, stream, streamNotifier, useSimpleFileVersionNaming, versionFile, worker, writeLock

Fields inherited from interface com.wowza.wms.livestreamrecord.model.ILiveStreamRecord
SPLIT_ON_DISCONTINUITY_ALWAYS, SPLIT_ON_DISCONTINUITY_DEFAULT, SPLIT_ON_DISCONTINUITY_NEVER, SPLIT_TYPE_BY_DURATION, SPLIT_TYPE_BY_SCHEDULE, SPLIT_TYPE_BY_SIZE, SPLIT_TYPE_NONE

Constructor Summary

public	**LiveStreamRecorderMediaWriter**()

Method Summary

java.util.List	**getPlayPackets**()
void	**onPublish**()
void	**onUnPublish**()
void	**setMediaWriterType**(String mediaWriterType)
void	**splitRecordingNow**()
void	**startRecording**(IMediaStream stream, boolean append)
void	**startRecording**(IMediaStream stream, String filePath, boolean append)

void	`startRecording(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata)`
void	`startRecording(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata, int splitOnTcDiscontinuity)`
void	`startRecordingSegmentByDuration(IMediaStream stream, String filePath, java.util.Map extraMetadata, long duration)`
void	`startRecordingSegmentBySchedule(IMediaStream stream, String filePath, java.util.Map extraMetadata, String schedule)`
void	`startRecordingSegmentBySize(IMediaStream stream, String filePath, java.util.Map extraMetadata, long size)`
void	`stopRecording()`
void	`work()`
void	`workStop()`

Methods inherited from class com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase

addListener, debug, getBaseFilePath, getCurrentDuration, getCurrentFile, getCurrentSize, getFilePath, getFileVersionDelegate, getLocalListeners, getSegmentDuration, getSegmentNumber, getSegmentSchedule, getSegmentSize, getSplitType, getStartTime, getStreamName, getWriteLock, init, isAppendFile, isMoveFirstVideoFrameToZero, isRecordData, isStartOnKeyFrame, isVersionFile, notifySegmentEnd, notifySegmentStart, onCronEvent, onPublish, onUnPublish, removeListener, setFileVersionDelegate, setMoveFirstVideoFrameToZero, setRecordData, setSegmentDuration, setSegmentSize, setStartOnKeyFrame, setVersionFile, splitRecordingNow, startRecording, startRecording, startRecording, startRecording, startRecordingSegmentByDuration, startRecordingSegmentBySchedule, startRecordingSegmentBySize, stopRecording, work, workStop

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.livestreamrecord.model.ILiveStreamRecord

addListener, getBaseFilePath, getCurrentDuration, getCurrentFile, getCurrentSize, getFilePath, getFileVersionDelegate, getSegmentDuration, getSegmentNumber, getSegmentSchedule, getSegmentSize, getSplitType, getStartTime, getStreamName, getWriteLock, init, isAppendFile, isMoveFirstVideoFrameToZero, isRecordData, isStartOnKeyFrame, isVersionFile, onPublish, onUnPublish, removeListener, setFileVersionDelegate, setMoveFirstVideoFrameToZero, setRecordData, setSegmentDuration, setSegmentSize, setStartOnKeyFrame, setVersionFile, splitRecordingNow, startRecording, startRecording, startRecording, startRecording, startRecordingSegmentByDuration, startRecordingSegmentBySchedule, startRecordingSegmentBySize, stopRecording, work, workStop

Methods inherited from interface com.wowza.wms.util.crontab.ICrontabEventHandler

onCronEvent

Constructors

LiveStreamRecorderMediaWriter

```
public LiveStreamRecorderMediaWriter()
```

Methods

setMediaWriterType

```
public void setMediaWriterType(String mediaWriterType)
```

startRecording

```
public void startRecording(IMediaStream stream,
        boolean append)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append)
```

startRecordingSegmentBySize

```
public void startRecordingSegmentBySize(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        long size)
```

startRecordingSegmentByDuration

```
public void startRecordingSegmentByDuration(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        long duration)
```

startRecordingSegmentBySchedule

```
public void startRecordingSegmentBySchedule(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        String schedule)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata,
        int splitOnTcDiscontinuity)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata)
```

stopRecording

```
public void stopRecording()
```

splitRecordingNow

```
public void splitRecordingNow()
```

onPublish

```
public void onPublish()
```

onUnPublish

```
public void onUnPublish()
```

workStop

```
public void workStop()
```

getPlayPackets

```
protected java.util.List getPlayPackets()
```

work

```
public void work()
```

(continued from last page)

com.wowza.wms.livestreamrecord.model
Class LiveStreamRecorderMP4

```
java.lang.Object
   │
   +-com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase
       │
       +-com.wowza.wms.livestreamrecord.model.LiveStreamRecorderMP4
```
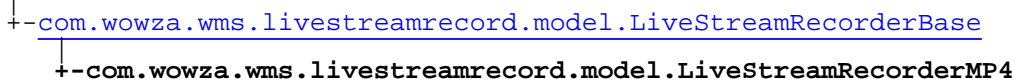
All Implemented Interfaces:
      ICrontabEventHandler, ILiveStreamRecord

---

public class **LiveStreamRecorderMP4**
extends LiveStreamRecorderBase

Fields inherited from class com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase
appendFile, appInstance, baseFilePath, contextStr, cronEventWorker, currentDuration, currentOutputFile, currentSize, debugLog, file, filePath, fileVersionDelegate, listeners, moveFirstVideoFrameToZero, recordData, recordStartTime, segmentDuration, segmentNumber, segmentScheduler, segmentSize, splitNow, splitOnTcDiscontinuity, splitType, startOnKeyFrame, stream, streamNotifier, useSimpleFileVersionNaming, versionFile, worker, writeLock

Fields inherited from interface com.wowza.wms.livestreamrecord.model.ILiveStreamRecord
SPLIT_ON_DISCONTINUITY_ALWAYS, SPLIT_ON_DISCONTINUITY_DEFAULT, SPLIT_ON_DISCONTINUITY_NEVER, SPLIT_TYPE_BY_DURATION, SPLIT_TYPE_BY_SCHEDULE, SPLIT_TYPE_BY_SIZE, SPLIT_TYPE_NONE

Constructor Summary

public	**LiveStreamRecorderMP4**()

Method Summary

java.util.List	**getPlayPackets**()
boolean	**isRecordOnMetaData**()
void	**onPublish**()
void	**onUnPublish**()
void	**setRecordOnMetaData**(boolean recordOnMetaData)
void	**startRecording**(IMediaStream stream, boolean append)
void	**startRecording**(IMediaStream stream, String filePath, boolean append)

void	startRecording(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata)
void	startRecording(IMediaStream stream, String filePath, boolean append, java.util.Map extraMetadata, int splitOnTcDiscontinuity)
void	startRecordingSegmentByDuration(IMediaStream stream, String filePath, java.util.Map extraMetadata, long duration)
void	startRecordingSegmentBySchedule(IMediaStream stream, String filePath, java.util.Map extraMetadata, String schedule)
void	startRecordingSegmentBySize(IMediaStream stream, String filePath, java.util.Map extraMetadata, long size)
void	stopRecording()
void	work()
void	workStop()

Methods inherited from class com.wowza.wms.livestreamrecord.model.LiveStreamRecorderBase

addListener, debug, getBaseFilePath, getCurrentDuration, getCurrentFile, getCurrentSize, getFilePath, getFileVersionDelegate, getLocalListeners, getSegmentDuration, getSegmentNumber, getSegmentSchedule, getSegmentSize, getSplitType, getStartTime, getStreamName, getWriteLock, init, isAppendFile, isMoveFirstVideoFrameToZero, isRecordData, isStartOnKeyFrame, isVersionFile, notifySegmentEnd, notifySegmentStart, onCronEvent, onPublish, onUnPublish, removeListener, setFileVersionDelegate, setMoveFirstVideoFrameToZero, setRecordData, setSegmentDuration, setSegmentSize, setStartOnKeyFrame, setVersionFile, splitRecordingNow, startRecording, startRecording, startRecording, startRecording, startRecordingSegmentByDuration, startRecordingSegmentBySchedule, startRecordingSegmentBySize, stopRecording, work, workStop

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.livestreamrecord.model.ILiveStreamRecord

addListener, getBaseFilePath, getCurrentDuration, getCurrentFile, getCurrentSize, getFilePath, getFileVersionDelegate, getSegmentDuration, getSegmentNumber, getSegmentSchedule, getSegmentSize, getSplitType, getStartTime, getStreamName, getWriteLock, init, isAppendFile, isMoveFirstVideoFrameToZero, isRecordData, isStartOnKeyFrame, isVersionFile, onPublish, onUnPublish, removeListener, setFileVersionDelegate, setMoveFirstVideoFrameToZero, setRecordData, setSegmentDuration, setSegmentSize, setStartOnKeyFrame, setVersionFile, splitRecordingNow, startRecording, startRecording, startRecording, startRecording, startRecordingSegmentByDuration, startRecordingSegmentBySchedule, startRecordingSegmentBySize, stopRecording, work, workStop

Methods inherited from interface com.wowza.wms.util.crontab.ICrontabEventHandler

onCronEvent

Constructors

LiveStreamRecorderMP4

public **LiveStreamRecorderMP4**()

Methods

onPublish

public void **onPublish**()

onUnPublish

public void **onUnPublish**()

startRecording

public void **startRecording**([IMediaStream](#) stream,
        boolean append)

startRecording

public void **startRecording**([IMediaStream](#) stream,
        String filePath,
        boolean append)

startRecordingSegmentBySize

public void **startRecordingSegmentBySize**([IMediaStream](#) stream,
        String filePath,
        java.util.Map extraMetadata,
        long size)

startRecordingSegmentByDuration

public void **startRecordingSegmentByDuration**([IMediaStream](#) stream,
        String filePath,
        java.util.Map extraMetadata,
        long duration)

startRecordingSegmentBySchedule

```
public void startRecordingSegmentBySchedule(IMediaStream stream,
        String filePath,
        java.util.Map extraMetadata,
        String schedule)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata)
```

startRecording

```
public void startRecording(IMediaStream stream,
        String filePath,
        boolean append,
        java.util.Map extraMetadata,
        int splitOnTcDiscontinuity)
```

stopRecording

```
public void stopRecording()
```

workStop

```
public void workStop()
```

getPlayPackets

```
protected java.util.List getPlayPackets()
```

work

```
public void work()
```

isRecordOnMetaData

```
public boolean isRecordOnMetaData()
```

(continued from last page)

setRecordOnMetaData

```
public void setRecordOnMetaData(boolean recordOnMetaData)
```

setRecordOnMetaData

```
public void setRecordOnMetaData(boolean recordOnMetaData)
```

com.wowza.wms.livestreamrecord.model
Class LiveStreamRecordFileVersionDelegate

```
java.lang.Object
    |
    +-com.wowza.wms.livestreamrecord.model.LiveStreamRecordFileVersionDelegate
```

All Implemented Interfaces:
> ILiveStreamRecordFileVersionDelegate

---

public class **LiveStreamRecordFileVersionDelegate**
extends Object
implements ILiveStreamRecordFileVersionDelegate

Default FileVersionDelegate class

This delegate allows the configuration of a custom FileVersionName using a template string. The tags in the template string are replaced with their associated values, to generate a filename.
 Valid template tags are;
 ${SourceStreamName} - The name of the stream
 ${SegmentNumber} - An incrementing value representing the current number of segments which have been created for this recording, starting at 0
 ${RecordingStartTime} - The time at which the recording was started
 ${SegmentTime} - Time time at which the segment was created

Field Summary

public static final	BASE_NAME_TAG Value: **${BaseFileName}**
public static final	DATETIME_FORMAT
public static final	SEGMENT_NUMBER_TAG Value: **${SegmentNumber}**
public static final	SEGMENT_TIME_TAG Value: **${SegmentTime}**
public static final	START_TIME_TAG Value: **${RecordingStartTime}**
public static final	STREAM_NAME_TAG Value: **${SourceStreamName}**

Constructor Summary

public	LiveStreamRecordFileVersionDelegate()

Method Summary

String	**getFilename**(**ILiveStreamRecord** recContext) Creates a new filename using the default template string,
String	**getFileTemplate**() Returns the current template string
void	**setFileTemplate**(String template) Sets the template string for creating the versioned file name.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `com.wowza.wms.livestreamrecord.model.ILiveStreamRecordFileVersionDelegate`

getFilename

Fields

DATETIME_FORMAT

```
public static final org.joda.time.format.DateTimeFormatter DATETIME_FORMAT
```

STREAM_NAME_TAG

```
public static final java.lang.String STREAM_NAME_TAG
```

> Constant value: **${SourceStreamName}**

BASE_NAME_TAG

```
public static final java.lang.String BASE_NAME_TAG
```

> Constant value: **${BaseFileName}**

SEGMENT_NUMBER_TAG

```
public static final java.lang.String SEGMENT_NUMBER_TAG
```

> Constant value: **${SegmentNumber}**

START_TIME_TAG

```
public static final java.lang.String START_TIME_TAG
```

> Constant value: **${RecordingStartTime}**

SEGMENT_TIME_TAG

public static final java.lang.String **SEGMENT_TIME_TAG**

Constant value: **${SegmentTime}**

Constructors

LiveStreamRecordFileVersionDelegate

public **LiveStreamRecordFileVersionDelegate**()

Methods

getFilename

public String **getFilename**([ILiveStreamRecord](#) recContext)

Creates a new filename using the default template string,

Parameters:
recContext - The LiveStreamRecord context

Returns:
String The versioned file name

setFileTemplate

public void **setFileTemplate**(String template)

Sets the template string for creating the versioned file name. If null is passed in, the template string reverts to the default template string

Parameters:
template - new template String

getFileTemplate

public String **getFileTemplate**()

Returns the current template string

Returns:
String current template string

Package
com.wowza.wms.logging

com.wowza.wms.logging
Interface Constants

---

public interface **Constants**
extends

Constants used internally throughout log4j.

Field Summary

public static final	ABSOLUTE_FORMAT ABSOLUTE string literal. Value: **ABSOLUTE**
public static final	ABSOLUTE_TIME_PATTERN SimpleTimePattern for ABSOLUTE. Value: **HH:mm:ss,SSS**
public static final	APPLICATION_KEY application string literal. Value: **application**
public static final	CODES_HREF Codes URL string literal. Value: **http://logging.apache.org/log4j/docs/codes.html**
public static final	CONFIGURATOR_CLASS_KEY log4j.configuratorClass string literal. Value: **log4j.configuratorClass**
public static final	DATE_AND_TIME_FORMAT DATE string literal. Value: **DATE**
public static final	DATE_AND_TIME_PATTERN SimpleTimePattern for DATE. Value: **dd MMM yyyy HH:mm:ss,SSS**
public static final	DEFAULT_CONFIGURATION_FILE The default property file name for automatic configuration. Value: **log4j.properties**
public static final	DEFAULT_CONFIGURATION_KEY log4j.configuration string literal. Value: **log4j.configuration**
public static final	DEFAULT_REPOSITORY_NAME The name of the default repository is "default" (without the quotes). Value: **default**
public static final	DEFAULT_XML_CONFIGURATION_FILE The default XML configuration file name for automatic configuration. Value: **log4j.xml**

---

public static final	HOSTNAME_KEY	
	hostname string literal.	
	Value: **hostname**	
public static final	ISO8601_FORMAT	
	ISO8601 string literal.	
	Value: **ISO8601**	
public static final	ISO8601_PATTERN	
	SimpleTimePattern for ISO8601.	
	Value: **yyyy-MM-dd HH:mm:ss,SSS**	
public static final	JNDI_CONTEXT_NAME	
	JNDI context name string literal.	
	Value: **java:comp/env/log4j/context-name**	
public static final	LOG4J_ID_KEY	
	log4jid string literal.	
	Value: **log4jid**	
public static final	LOG4J_PACKAGE_NAME	
	log4j package name string literal.	
	Value: **org.apache.log4j**	
public static final	RECEIVER_NAME_KEY	
	receiver string literal.	
	Value: **receiver**	
public static final	TEMP_CONSOLE_APPENDER_NAME	
	TEMP_CONSOLE_APPENDER string literal.	
	Value: **TEMP_CONSOLE_APPENDER**	
public static final	TEMP_LIST_APPENDER_NAME	
	TEMP_LIST_APPENDER string literal.	
	Value: **TEMP_LIST_APPENDER**	
public static final	TIMESTAMP_RULE_FORMAT	
	time stamp pattern string literal.	
	Value: **yyyy/MM/dd HH:mm:ss**	

Fields

LOG4J_PACKAGE_NAME

public static final java.lang.String **LOG4J_PACKAGE_NAME**

log4j package name string literal.
Constant value: **org.apache.log4j**

DEFAULT_REPOSITORY_NAME

public static final java.lang.String **DEFAULT_REPOSITORY_NAME**

The name of the default repository is "default" (without the quotes).
Constant value: **default**

APPLICATION_KEY

`public static final java.lang.String` **`APPLICATION_KEY`**

application string literal.
Constant value: **`application`**

HOSTNAME_KEY

`public static final java.lang.String` **`HOSTNAME_KEY`**

hostname string literal.
Constant value: **`hostname`**

RECEIVER_NAME_KEY

`public static final java.lang.String` **`RECEIVER_NAME_KEY`**

receiver string literal.
Constant value: **`receiver`**

LOG4J_ID_KEY

`public static final java.lang.String` **`LOG4J_ID_KEY`**

log4jid string literal.
Constant value: **`log4jid`**

TIMESTAMP_RULE_FORMAT

`public static final java.lang.String` **`TIMESTAMP_RULE_FORMAT`**

time stamp pattern string literal.
Constant value: **`yyyy/MM/dd HH:mm:ss`**

DEFAULT_CONFIGURATION_FILE

`public static final java.lang.String` **`DEFAULT_CONFIGURATION_FILE`**

The default property file name for automatic configuration.
Constant value: **`log4j.properties`**

DEFAULT_XML_CONFIGURATION_FILE

`public static final java.lang.String` **`DEFAULT_XML_CONFIGURATION_FILE`**

The default XML configuration file name for automatic configuration.
Constant value: **`log4j.xml`**

DEFAULT_CONFIGURATION_KEY

`public static final java.lang.String` **`DEFAULT_CONFIGURATION_KEY`**

log4j.configuration string literal.
Constant value: **`log4j.configuration`**

CONFIGURATOR_CLASS_KEY

`public static final java.lang.String` **`CONFIGURATOR_CLASS_KEY`**

log4j.configuratorClass string literal.
Constant value: **`log4j.configuratorClass`**

JNDI_CONTEXT_NAME

`public static final java.lang.String` **`JNDI_CONTEXT_NAME`**

JNDI context name string literal.
Constant value: **`java:comp/env/log4j/context-name`**

TEMP_LIST_APPENDER_NAME

`public static final java.lang.String` **`TEMP_LIST_APPENDER_NAME`**

TEMP_LIST_APPENDER string literal.
Constant value: **`TEMP_LIST_APPENDER`**

TEMP_CONSOLE_APPENDER_NAME

`public static final java.lang.String` **`TEMP_CONSOLE_APPENDER_NAME`**

TEMP_CONSOLE_APPENDER string literal.
Constant value: **`TEMP_CONSOLE_APPENDER`**

CODES_HREF

`public static final java.lang.String` **`CODES_HREF`**

Codes URL string literal.
Constant value: **`http://logging.apache.org/log4j/docs/codes.html`**

ABSOLUTE_FORMAT

`public static final java.lang.String` **`ABSOLUTE_FORMAT`**

ABSOLUTE string literal.
Constant value: **`ABSOLUTE`**

ABSOLUTE_TIME_PATTERN

`public static final java.lang.String` **`ABSOLUTE_TIME_PATTERN`**

SimpleTimePattern for ABSOLUTE.
Constant value: **`HH:mm:ss,SSS`**

DATE_AND_TIME_FORMAT

`public static final java.lang.String` **`DATE_AND_TIME_FORMAT`**

DATE string literal.
Constant value: **`DATE`**

DATE_AND_TIME_PATTERN

`public static final java.lang.String` **`DATE_AND_TIME_PATTERN`**

SimpleTimePattern for DATE.
Constant value: **dd MMM yyyy HH:mm:ss,SSS**

ISO8601_FORMAT

`public static final java.lang.String` **`ISO8601_FORMAT`**

ISO8601 string literal.
Constant value: **ISO8601**

ISO8601_PATTERN

`public static final java.lang.String` **`ISO8601_PATTERN`**

SimpleTimePattern for ISO8601.
Constant value: **yyyy-MM-dd HH:mm:ss,SSS**

com.wowza.wms.logging
Interface ILogNotify

All Known Implementing Classes:

LogNotifyCalculateIncremental

---

public interface **ILogNotify**
extends

ILogNotify: Interface to add custom fields to the Wowza Pro log files. To add your own custom log fields, define a class that implements this interface. The onLog method will be called each time the Wowza Pro server logs a message. Here is an example of a simple ILogNotify class that logs the current system time in milliseconds as a Long (systime-long) and as a String (systime-string).

```
package com.wowza.wms.plugin.newlogfields;

import org.apache.log4j.*;

import com.wowza.wms.logging.*;
import com.wowza.wms.stream.*;

public class LogNotifyDocs implements ILogNotify
{
        public void onLog(Level level, String comment, IMediaStream stream, String category,
String event, int status, String context)
        {
                long systime = System.currentTimeMillis();
                WMSLoggerFactory.putGlobalLogValue("systime-long", new Long(systime));
                WMSLoggerFactory.putGlobalLogValue("systime-string", systime+"");
        }
}
```

Note: To get any of the values currently being logged use the logging API WMSLoggerFactory.getGlobalLogValue(WMSLoggerIDs.FD_*)

To add your class to Wowza Pro, compile your class into a .class file, bind the class into a .jar file and copy the .jar file into the Wowza Pro server /lib folder. Next, edit:

- [install-dir]/bin/setenv.bat (Windows)
- [install-dir]/bin/setenv.sh (Linux, OSX, Solaris)

Add **-Dcom.wowza.wms.logging.LogNotify=[full-path-to-your-ILogNotify-class]** to the **JAVA_OPTS**. For example for the class above the JAVA_OPTS would look like:

```
Linux/OSX
JAVA_OPTS="-Xmx768M -
Dcom.wowza.wms.logging.LogNotify=com.wowza.wms.plugin.newlogfields.NewLogFields"

Windows
JAVA_OPTS=-Xmx768M -
Dcom.wowza.wms.logging.LogNotify=com.wowza.wms.plugin.newlogfields.NewLogFields
```

If on Windows, also edit **[install-dir]/bin/WowzaMediaServerPro-Service.conf** and add **wrapper.java.additional.[n]=-Dcom.wowza.wms.logging.LogNotify=[full-path-to-your-ILogNotify-class]** to the **Java Additional Parameters** section where **[n]** is the next number in the list of active parameters. For example for the class above if the last active additional parameter is 6, the entry would look like this:

```
wrapper.java.additional.7=-
Dcom.wowza.wms.logging.LogNotify=com.wowza.wms.plugin.newlogfields.NewLogFields
```

Next, edit **[install-dir]/conf/log4j.properties** and add the new field names to any **log4j.appender.[appender-name].layout.Fields** fields lists to which you want to log these values. For example:

```
log4j.appender.stdout.layout.Fields=x-severity,x-category,x-event,x-ctx,x-comment,systime-
long,systime-string
```

Method Summary

void	onLog(org.apache.log4j.Level level, String comment, IMediaStream stream, String category, String event, int status, String context) Called each time the server logs a message.

Methods

onLog

```
public void onLog(org.apache.log4j.Level level,
        String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context)
```

Called each time the server logs a message.

Parameters:

level - log level as defined by (org.apache.log4j.Level)

comment - comment part of the log statement

stream - if stream category log message it's the source stream

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`category` - log category as defined by WMSLoggerIDs.CAT_*

`event` - log event as defined by WMSLoggerIDs.EVT_*

`status` - log status (same as HTTP status field) as defined by WMSLoggerIDs.STAT_*

`context` - log context value like stream name, vhost name, application name

com.wowza.wms.logging
Class LogNotifyCalculateIncremental

```
java.lang.Object
   │
   +-com.wowza.wms.logging.LogNotifyCalculateIncremental
```

All Implemented Interfaces:
> ILogNotify

---

public class **LogNotifyCalculateIncremental**
extends Object
implements ILogNotify

LogNotifyCalculateIncremental: pre-built implementation of ILogNotify that adds 5 new log fields:

- cs-bytes-inc (client to server bytes streamed since last log entry)
- sc-bytes-inc (server to client bytesstreamed since last log entry)
- cs-stream-bytes-inc (client to server stream bytesstreamed since last log entry)
- sc-stream-bytes-inc (server to client stream bytesstreamed since last log entry)
- x-duration-inc (time in seconds that have passed since the last log event)

These are incremental versions of the regular log values. To add this to Wowza Pro edit:

- [install-dir]/bin/setenv.bat (Windows)
- [install-dir]/bin/setenv.sh (Linux, OSX)

Add **-Dcom.wowza.wms.logging.LogNotify=com.wowza.wms.logging.LogNotifyCalculateIncremental** to the **JAVA_OPTS**. Also, edit **[install-dir]/conf/log4j.properties** and add these field names to any **log4j.appender.[appender-name].layout.Fields** fields lists to which you want to log these values.

*NOTE: These new log values are only accurate if all the events are included for the **session** and **stream** log categories.*

Field Summary

public static final	FD_cs_bytes_inc Value: **cs-bytes-inc**
public static final	FD_cs_stream_bytes_inc Value: **cs-stream-bytes-inc**
public static final	FD_sc_bytes_inc Value: **sc-bytes-inc**
public static final	FD_sc_stream_bytes_inc Value: **sc-stream-bytes-inc**
public static final	FD_x_duration_inc Value: **x-duration-inc**

Constructor Summary

---

public	LogNotifyCalculateIncremental()

Method Summary

void	onLog(org.apache.log4j.Level level, String comment, IMediaStream stream, String category, String event, int status, String context)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.logging.ILogNotify

onLog

Fields

FD_cs_bytes_inc

public static final java.lang.String **FD_cs_bytes_inc**

Constant value: **cs-bytes-inc**

FD_sc_bytes_inc

public static final java.lang.String **FD_sc_bytes_inc**

Constant value: **sc-bytes-inc**

FD_cs_stream_bytes_inc

public static final java.lang.String **FD_cs_stream_bytes_inc**

Constant value: **cs-stream-bytes-inc**

FD_sc_stream_bytes_inc

public static final java.lang.String **FD_sc_stream_bytes_inc**

Constant value: **sc-stream-bytes-inc**

FD_x_duration_inc

public static final java.lang.String **FD_x_duration_inc**

Constant value: **x-duration-inc**

Constructors

LogNotifyCalculateIncremental

```
public LogNotifyCalculateIncremental()
```

Methods

onLog

```
public void onLog(org.apache.log4j.Level level,
        String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context)
```

LogNotifyCalculateIncremental

```
public LogNotifyCalculateIncremental()
```

com.wowza.wms.logging
Class UDPAppender

```
java.lang.Object
    │
    +-org.apache.log4j.AppenderSkeleton
        │
        +-com.wowza.wms.logging.UDPAppender
```

All Implemented Interfaces:
> PortBased, org.apache.log4j.spi.OptionHandler, org.apache.log4j.Appender

---

public class **UDPAppender**
extends org.apache.log4j.AppenderSkeleton
implements org.apache.log4j.Appender, org.apache.log4j.spi.OptionHandler, PortBased

Sends log information as a UDP datagrams.

The UDPAppender is meant to be used as a diagnostic logging tool so that logging can be monitored by a simple UDP client.

Messages are not sent as LoggingEvent objects but as text after applying the designated Layout.

The port and remoteHost properties can be set in configuration properties. By setting the remoteHost to a broadcast address any number of clients can listen for log messages.

This was inspired and really extended/copied from SocketAppender. Please see the docs for the proper credit to the authors of that class.

Field Summary

public static final	**DEFAULT_PORT** The default port number for the UDP packets, 9991. Value: **9991**

Fields inherited from class `org.apache.log4j.AppenderSkeleton`
closed, errorHandler, headFilter, layout, name, tailFilter, threshold

Constructor Summary

public	**UDPAppender**()
public	**UDPAppender**(java.net.InetAddress address, int port) Sends UDP packets to the `address` and `port`.
public	**UDPAppender**(String host, int port) Sends UDP packets to the `address` and `port`.

Method Summary

void	**activateOptions**() Open the UDP sender for the **RemoteHost** and **Port**.
void	**append**(org.apache.log4j.spi.LoggingEvent event)

---

void	[cleanUp]() Close the UDP Socket and release the underlying connector thread if it has been created
void	[close]() Close this appender.
String	[getApplication]() Returns value of the **App** option.
String	[getEncoding]() Returns value of the **Encoding** option.
int	[getPort]() Returns value of the **Port** option.
String	[getRemoteHost]() Returns value of the **RemoteHost** option.
boolean	[isActive](<!-- -->)
boolean	[requiresLayout](<!-- -->) The UDPAppender uses layouts.
void	[setApplication](<!-- -->)(String app) The **App** option takes a string value which should be the name of the application getting logged.
void	[setEncoding](<!-- -->)(String encoding) The **Encoding** option specifies how the bytes are encoded.
void	[setPort](<!-- -->)(int port) The **Port** option takes a positive integer representing the port where UDP packets will be sent.
void	[setRemoteHost](<!-- -->)(String host) The **RemoteHost** option takes a string value which should be the host name or ipaddress to send the UDP packets.

Methods inherited from class `org.apache.log4j.AppenderSkeleton`

`activateOptions, addFilter, append, clearFilters, doAppend, finalize, getErrorHandler, getFilter, getFirstFilter, getLayout, getName, getThreshold, isAsSevereAsThreshold, setErrorHandler, setLayout, setName, setThreshold`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `org.apache.log4j.Appender`

`addFilter, clearFilters, close, doAppend, getErrorHandler, getFilter, getLayout, getName, requiresLayout, setErrorHandler, setLayout, setName`

Methods inherited from interface `org.apache.log4j.spi.OptionHandler`

`activateOptions`

Methods inherited from interface `com.wowza.wms.logging.PortBased`

getPort

Methods inherited from interface `com.wowza.wms.logging.NetworkBased`

getName, isActive

Fields

DEFAULT_PORT

`public static final int` **`DEFAULT_PORT`**

The default port number for the UDP packets, 9991.
Constant value: **`9991`**

Constructors

UDPAppender

`public` **`UDPAppender`**`()`

UDPAppender

`public` **`UDPAppender`**`(java.net.InetAddress address,`
`                  int port)`

Sends UDP packets to the `address` and `port`.

UDPAppender

`public` **`UDPAppender`**`(String host,`
`                  int port)`

Sends UDP packets to the `address` and `port`.

Methods

activateOptions

`public void` **`activateOptions`**`()`

Open the UDP sender for the **RemoteHost** and **Port**.

close

`public void` **`close`**`()`

Close this appender.

This will mark the appender as closed and call then cleanUp() method.

cleanUp

```
public void cleanUp()
```

> Close the UDP Socket and release the underlying connector thread if it has been created

append

```
public void append(org.apache.log4j.spi.LoggingEvent event)
```

isActive

```
public boolean isActive()
```

requiresLayout

```
public boolean requiresLayout()
```

> The UDPAppender uses layouts. Hence, this method returns `true`.

setRemoteHost

```
public void setRemoteHost(String host)
```

> The **RemoteHost** option takes a string value which should be the host name or ipaddress to send the UDP packets.

getRemoteHost

```
public String getRemoteHost()
```

> Returns value of the **RemoteHost** option.

setApplication

```
public void setApplication(String app)
```

> The **App** option takes a string value which should be the name of the application getting logged. If property was already set (via system property), don't set here.

getApplication

```
public String getApplication()
```

> Returns value of the **App** option.

setEncoding

```
public void setEncoding(String encoding)
```

> The **Encoding** option specifies how the bytes are encoded. If this option is not specified, the System encoding is used.

getEncoding

```
public String getEncoding()
```

Returns value of the **Encoding** option.

setPort

```
public void setPort(int port)
```

The **Port** option takes a positive integer representing the port where UDP packets will be sent.

getPort

```
public int getPort()
```

Returns value of the **Port** option.

com.wowza.wms.logging
Class WMSLogger

```
java.lang.Object
    │
    +-org.apache.log4j.Category
        │
        +-org.apache.log4j.Logger
            │
            +-com.wowza.wms.logging.WMSLogger
```

All Implemented Interfaces:
> org.apache.log4j.spi.AppenderAttachable

---

public class **WMSLogger**
extends org.apache.log4j.Logger

Fields inherited from class `org.apache.log4j.Category`
`additive`, `level`, `name`, `parent`, `repository`, `resourceBundle`

Constructor Summary

public	[WMSLogger](String name, org.apache.log4j.Logger tmpLogger)
public	[WMSLogger](String name)

Method Summary

void	[debug](Object o)
void	[debug](Object o, Throwable e)
void	[debug](String comment)
void	[debug](String comment, [IMediaStream](stream)
void	[debug](String comment, [IMediaStream](stream, String category, String event, int status, String context)
void	[debug](String comment, String category, String event)
void	[debug](String comment, String category, String event, int status, String context)
void	[debug](String comment, Throwable e)
void	[error](Object o)
void	[error](Object o, Throwable e)

---

void	error(String comment)
void	error(String comment, IMediaStream stream)
void	error(String comment, IMediaStream stream, String category, String event, int status, String context)
void	error(String comment, String category, String event)
void	error(String comment, String category, String event, int status, String context)
void	error(String comment, Throwable e)
void	fatal(Object o)
void	fatal(Object o, Throwable e)
void	fatal(String comment)
void	fatal(String comment, IMediaStream stream)
void	fatal(String comment, IMediaStream stream, String category, String event, int status, String context)
void	fatal(String comment, String category, String event)
void	fatal(String comment, String category, String event, int status, String context)
void	fatal(String comment, Throwable e)
static WMSLogger	getLogger(String name)
void	info(Object o)
void	info(Object o, Throwable e)
void	info(String comment)
void	info(String comment, IMediaStream stream)
void	info(String comment, IMediaStream stream, String category, String event, int status, String context)
void	info(String comment, String category, String event)
void	info(String comment, String category, String event, int status, String context)

void	**info**(String comment, Throwable e)	
boolean	**isDebugEnabled**()	
boolean	**isEnabledFor**(org.apache.log4j.Priority level)	
boolean	**isErrorEnabled**()	
boolean	**isInfoEnabled**()	
boolean	**isTraceEnabled**()	
boolean	**isWarnEnabled**()	
void	**log**(org.apache.log4j.Level level, String comment)	
void	**log**(org.apache.log4j.Level level, String comment, **IMediaStream** stream)	
void	**log**(org.apache.log4j.Level level, String comment, **IMediaStream** stream, String category, String event)	
void	**log**(org.apache.log4j.Level level, String comment, **IMediaStream** stream, String category, String event, int status, String context)	
void	**log**(org.apache.log4j.Level level, String comment, **IMediaStream** stream, String category, String event, int status, String context, Throwable e)	
void	**log**(org.apache.log4j.Level level, String comment, String category, String event)	
void	**warn**(Object o)	
void	**warn**(Object o, Throwable e)	
void	**warn**(String comment)	
void	**warn**(String comment, **IMediaStream** stream)	
void	**warn**(String comment, **IMediaStream** stream, String category, String event, int status, String context)	
void	**warn**(String comment, String category, String event)	
void	**warn**(String comment, String category, String event, int status, String context)	
void	**warn**(String comment, Throwable e)	

Methods inherited from class `org.apache.log4j.Logger`

getLogger, getLogger, getLogger, getRootLogger, isTraceEnabled, trace, trace

Methods inherited from class `org.apache.log4j.Category`

addAppender, assertLog, callAppenders, debug, debug, error, error, exists, fatal, fatal, forcedLog, getAdditivity, getAllAppenders, getAppender, getChainedPriority, getCurrentCategories, getDefaultHierarchy, getEffectiveLevel, getHierarchy, getInstance, getInstance, getLevel, getLoggerRepository, getName, getParent, getPriority, getResourceBundle, getResourceBundleString, getRoot, info, info, isAttached, isDebugEnabled, isEnabledFor, isInfoEnabled, l7dlog, l7dlog, log, log, log, removeAllAppenders, removeAppender, removeAppender, setAdditivity, setLevel, setPriority, setResourceBundle, shutdown, warn, warn

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `org.apache.log4j.spi.AppenderAttachable`

addAppender, getAllAppenders, getAppender, isAttached, removeAllAppenders, removeAppender, removeAppender

Constructors

WMSLogger

```
public WMSLogger(String name,
                 org.apache.log4j.Logger tmpLogger)
```

WMSLogger

```
public WMSLogger(String name)
```

Methods

getLogger

public static [WMSLogger](#) **getLogger**(String name)

isWarnEnabled

public boolean **isWarnEnabled**()

isErrorEnabled

public boolean **isErrorEnabled**()

isTraceEnabled

```
public boolean isTraceEnabled()
```

isDebugEnabled

```
public boolean isDebugEnabled()
```

isInfoEnabled

```
public boolean isInfoEnabled()
```

isEnabledFor

```
public boolean isEnabledFor(org.apache.log4j.Priority level)
```

log

```
public void log(org.apache.log4j.Level level,
        String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context,
        Throwable e)
```

log

```
public void log(org.apache.log4j.Level level,
        String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context)
```

log

```
public void log(org.apache.log4j.Level level,
        String comment,
        IMediaStream stream,
        String category,
        String event)
```

log

```
public void log(org.apache.log4j.Level level,
        String comment,
        String category,
        String event)
```

log

```
public void log(org.apache.log4j.Level level,
        String comment)
```

log

```
public void log(org.apache.log4j.Level level,
        String comment,
        IMediaStream stream)
```

info

```
public void info(Object o)
```

info

```
public void info(Object o,
        Throwable e)
```

info

```
public void info(String comment)
```

info

```
public void info(String comment,
        Throwable e)
```

info

```
public void info(String comment,
        IMediaStream stream)
```

info

```
public void info(String comment,
        String category,
        String event)
```

info

```
public void info(String comment,
        String category,
        String event,
        int status,
        String context)
```

info

```
public void info(String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context)
```

error

```
public void error(Object o)
```

error

```
public void error(Object o,
        Throwable e)
```

error

```
public void error(String comment)
```

error

```
public void error(String comment,
        Throwable e)
```

error

```
public void error(String comment,
        IMediaStream stream)
```

error

```
public void error(String comment,
        String category,
        String event)
```

error

```
public void error(String comment,
        String category,
        String event,
        int status,
        String context)
```

error

```
public void error(String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context)
```

fatal

```
public void fatal(Object o)
```

fatal

```
public void fatal(Object o,
        Throwable e)
```

fatal

```
public void fatal(String comment)
```

fatal

```
public void fatal(String comment,
        Throwable e)
```

fatal

```
public void fatal(String comment,
        IMediaStream stream)
```

fatal

```
public void fatal(String comment,
        String category,
        String event)
```

fatal

```
public void fatal(String comment,
        String category,
        String event,
        int status,
        String context)
```

fatal

```
public void fatal(String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context)
```

debug

```
public void debug(Object o)
```

debug

```
public void debug(Object o,
        Throwable e)
```

debug

```
public void debug(String comment)
```

debug

```
public void debug(String comment,
        Throwable e)
```

debug

```
public void debug(String comment,
        IMediaStream stream)
```

debug

```
public void debug(String comment,
        String category,
        String event)
```

debug

```
public void debug(String comment,
        String category,
        String event,
        int status,
        String context)
```

debug

```
public void debug(String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context)
```

warn

```
public void warn(Object o)
```

warn

```
public void warn(Object o,
        Throwable e)
```

warn

```
public void warn(String comment)
```

warn

```
public void warn(String comment,
        Throwable e)
```

warn

```
public void warn(String comment,
        IMediaStream stream)
```

warn

```
public void warn(String comment,
        String category,
        String event)
```

warn

```
public void warn(String comment,
        String category,
        String event,
        int status,
        String context)
```

warn

```
public void warn(String comment,
        IMediaStream stream,
        String category,
        String event,
        int status,
        String context)
```

com.wowza.wms.logging
Class WMSLoggerFactory

```
java.lang.Object
    |
    +-com.wowza.wms.logging.WMSLoggerFactory
```

All Implemented Interfaces:
> org.apache.log4j.spi.LoggerFactory

---

public class **WMSLoggerFactory**
extends Object
implements org.apache.log4j.spi.LoggerFactory

Field Summary

public static final	[LOGGERNAME_SERVER](#)
	Value: **_Server_**

Constructor Summary

public	[WMSLoggerFactory](#)()

Method Summary

[WMSLogger](#)	[forceNewLoggerInstance](#)(String name, org.apache.log4j.Logger tmpLogger)
static Object	[getGlobalLogValue](#)(String key)
static [WMSLoggerFactory](#)	[getInstance](#)()
static [WMSLogger](#)	[getLogger](#)(Class classObj)
static [WMSLogger](#)	[getLoggerObj](#)([IApplication](#) application)
static [WMSLogger](#)	[getLoggerObj](#)([IApplicationInstance](#) appInstance)
static [WMSLogger](#)	[getLoggerObj](#)([IVHost](#) vhost)
[WMSLogger](#)	[getLoggerObj](#)(String name)
static void	[initContextLogging](#)([IApplication](#) application)
static void	[initContextLogging](#)([IApplicationInstance](#) appInstance)
static void	[initContextLogging](#)([IVHost](#) vhost)

---

static [WMSLogger](#)	[initializeLogging](#)(String loggingConfigURL)	
static [WMSLogger](#)	[initializeLogging](#)(String loggingConfigURL, [IVHost](#) vhost)	
static boolean	[isGlobalLogValueSet](#)(String key)	
org.apache.log4j.Logger	[makeNewLoggerInstance](#)(String name)	
static void	[putGlobalLogValue](#)(String key, Object obj)	
static void	[removeGlobalLogValue](#)(String key)	
static void	[removeGlobalLogValues](#)()	
static void	[resetMDC](#)()	

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `org.apache.log4j.spi.LoggerFactory`

`makeNewLoggerInstance`

Fields

LOGGERNAME_SERVER

`public static final java.lang.String` **`LOGGERNAME_SERVER`**

Constant value: **`_Server_`**

Constructors

WMSLoggerFactory

`public` **`WMSLoggerFactory`**`()`

Methods

getLoggerObj

`public` [WMSLogger](#) **`getLoggerObj`**`(String name)`

forceNewLoggerInstance

```
public WMSLogger forceNewLoggerInstance(String name,
        org.apache.log4j.Logger tmpLogger)
```

getInstance

```
public static WMSLoggerFactory getInstance()
```

initContextLogging

```
public static void initContextLogging(IVHost vhost)
```

initContextLogging

```
public static void initContextLogging(IApplication application)
```

initContextLogging

```
public static void initContextLogging(IApplicationInstance appInstance)
```

initializeLogging

```
public static WMSLogger initializeLogging(String loggingConfigURL)
```

initializeLogging

```
public static WMSLogger initializeLogging(String loggingConfigURL,
        IVHost vhost)
```

makeNewLoggerInstance

```
public org.apache.log4j.Logger makeNewLoggerInstance(String name)
```

resetMDC

```
public static void resetMDC()
```

removeGlobalLogValues

```
public static void removeGlobalLogValues()
```

removeGlobalLogValue

```
public static void removeGlobalLogValue(String key)
```

isGlobalLogValueSet

```
public static boolean isGlobalLogValueSet(String key)
```

putGlobalLogValue

```
public static void putGlobalLogValue(String key,
        Object obj)
```

getGlobalLogValue

```
public static Object getGlobalLogValue(String key)
```

getLoggerObj

```
public static WMSLogger getLoggerObj(IVHost vhost)
```

getLoggerObj

```
public static WMSLogger getLoggerObj(IApplication application)
```

getLoggerObj

```
public static WMSLogger getLoggerObj(IApplicationInstance appInstance)
```

getLogger

```
public static WMSLogger getLogger(Class classObj)
```

com.wowza.wms.logging
Class WMSLoggerIDs

```
java.lang.Object
    │
    +-com.wowza.wms.logging.WMSLoggerIDs
```

public class **WMSLoggerIDs**
extends Object

Field Summary

public static final	[CAT_ALL](#)
public static final	[CAT_application](#) Value: **application**
public static final	[CAT_cupertino](#) Value: **cupertino**
public static final	[CAT_dvrchunk](#) Value: **dvrchunk**
public static final	[CAT_mpegdash](#) Value: **mpegdash**
public static final	[CAT_rtsp](#) Value: **rtsp**
public static final	[CAT_sanjose](#) Value: **sanjose**
public static final	[CAT_server](#) Value: **server**
public static final	[CAT_session](#) Value: **session**
public static final	[CAT_smoothstreaming](#) Value: **smoothstreaming**
public static final	[CAT_stream](#) Value: **stream**
public static final	[CAT_transcoder](#) Value: **transcoder**

public static final	**CAT_vhost** Value: **vhost**
public static final	**CAT_webm** Value: **webm**
public static final	**CTRL_playlist_node** Value: **CTRL-playlist-node**
public static final	**EVT_ALL**
public static final	**EVT_announce** Value: **announce**
public static final	**EVT_app_start** Value: **app-start**
public static final	**EVT_app_stop** Value: **app-stop**
public static final	**EVT_comment** Value: **comment**
public static final	**EVT_connect** Value: **connect**
public static final	**EVT_connect_burst** Value: **connect-burst**
public static final	**EVT_connect_pending** Value: **connect-pending**
public static final	**EVT_create** Value: **create**
public static final	**EVT_decoderaudiostart** Value: **decoder-audio-start**
public static final	**EVT_decoderaudiostop** Value: **decoder-audio-stop**
public static final	**EVT_decodervideostart** Value: **decoder-video-start**
public static final	**EVT_decodervideostop** Value: **decoder-video-stop**

public static final	EVT_describe	
	Value: **describe**	
public static final	EVT_destroy	
	Value: **destroy**	
public static final	EVT_disconnect	
	Value: **disconnect**	
public static final	EVT_encoderaudiostart	
	Value: **encoder-audio-start**	
public static final	EVT_encoderaudiostop	
	Value: **encoder-audio-stop**	
public static final	EVT_encodervideostart	
	Value: **encoder-video-start**	
public static final	EVT_encodervideostop	
	Value: **encoder-video-stop**	
public static final	EVT_pause	
	Value: **pause**	
public static final	EVT_play	
	Value: **play**	
public static final	EVT_publish	
	Value: **publish**	
public static final	EVT_record	
	Value: **record**	
public static final	EVT_recordstop	
	Value: **recordstop**	
public static final	EVT_seek	
	Value: **seek**	
public static final	EVT_server_start	
	Value: **server-start**	
public static final	EVT_server_stop	
	Value: **server-stop**	
public static final	EVT_setbuffertime	
	Value: **setbuffertime**	

public static final	EVT_setstreamtype	
	Value: **setstreamtype**	
public static final	EVT_stop	
	Value: **stop**	
public static final	EVT_unpause	
	Value: **unpause**	
public static final	EVT_unpublish	
	Value: **unpublish**	
public static final	EVT_vhost_start	
	Value: **vhost-start**	
public static final	EVT_vhost_stop	
	Value: **vhost-stop**	
public static final	FD_ALL	
public static final	FD_c_client_id	
	Value: **c-client-id**	
public static final	FD_c_ip	
	Value: **c-ip**	
public static final	FD_c_proto	
	Value: **c-proto**	
public static final	FD_c_referrer	
	Value: **c-referrer**	
public static final	FD_c_user_agent	
	Value: **c-user-agent**	
public static final	FD_cs_bytes	
	Value: **cs-bytes**	
public static final	FD_cs_stream_bytes	
	Value: **cs-stream-bytes**	
public static final	FD_cs_uri_query	
	Value: **cs-uri-query**	
public static final	FD_cs_uri_stem	
	Value: **cs-uri-stem**	

public static final	FD_date	
	Value: **date**	
public static final	FD_s_ip	
	Value: **s-ip**	
public static final	FD_s_port	
	Value: **s-port**	
public static final	FD_s_uri	
	Value: **s-uri**	
public static final	FD_sc_bytes	
	Value: **sc-bytes**	
public static final	FD_sc_stream_bytes	
	Value: **sc-stream-bytes**	
public static final	FD_time	
	Value: **time**	
public static final	FD_tz	
	Value: **tz**	
public static final	FD_x_app	
	Value: **x-app**	
public static final	FD_x_appinst	
	Value: **x-appinst**	
public static final	FD_x_category	
	Value: **x-category**	
public static final	FD_x_comment	
	Value: **x-comment**	
public static final	FD_x_ctx	
	Value: **x-ctx**	
public static final	FD_x_ctx_override	
	Value: **x-ctx-override**	
public static final	FD_x_duration	
	Value: **x-duration**	
public static final	FD_x_event	
	Value: **x-event**	

public static final	FD_x_file_ext Value: **x-file-ext**
public static final	FD_x_file_length Value: **x-file-length**
public static final	FD_x_file_name Value: **x-file-name**
public static final	FD_x_file_size Value: **x-file-size**
public static final	FD_x_severity Value: **x-severity**
public static final	FD_x_sname Value: **x-sname**
public static final	FD_x_sname_query Value: **x-sname-query**
public static final	FD_x_spos Value: **x-spos**
public static final	FD_x_status Value: **x-status**
public static final	FD_x_stream_id Value: **x-stream-id**
public static final	FD_x_suri Value: **x-suri**
public static final	FD_x_suri_query Value: **x-suri-query**
public static final	FD_x_suri_stem Value: **x-suri-stem**
public static final	FD_x_vhost Value: **x-vhost**
public static final	PROTO_HTTPCUPERTINO Value: **http (cupertino)**
public static final	PROTO_HTTPDVRCHUNK Value: **http (dvr)**

public static final	PROTO_HTTPMPEGDASH	
	Value: **http (mpegdash)**	
public static final	PROTO_HTTPSANJOSE	
	Value: **http (sanjose)**	
public static final	PROTO_HTTPSCUPERTINO	
	Value: **https (cupertino)**	
public static final	PROTO_HTTPSDVRCHUNK	
	Value: **https (dvr)**	
public static final	PROTO_HTTPSMOOTH	
	Value: **http (smooth)**	
public static final	PROTO_HTTPSSANJOSE	
	Value: **https (sanjose)**	
public static final	PROTO_HTTPSSMOOTH	
	Value: **https (smooth)**	
public static final	PROTO_HTTPSSTREAMER	
	Value: **https (streamer)**	
public static final	PROTO_HTTPSTREAMER	
	Value: **http (streamer)**	
public static final	PROTO_RTMP	
	Value: **rtmp**	
public static final	PROTO_RTMPE	
	Value: **rtmpe**	
public static final	PROTO_RTMPS	
	Value: **rtmps**	
public static final	PROTO_RTMPT	
	Value: **rtmpt (HTTP-1.1)**	
public static final	PROTO_RTMPTE	
	Value: **rtmpte (HTTP-1.1)**	
public static final	PROTO_RTMPTS	
	Value: **rtmpts (HTTP-1.1)**	
public static final	PROTO_RTSP	
	Value: **rtsp**	

public static final	PROTO_WOWZ
	Value: **wowz**
public static final	PROTO_WOWZE
	Value: **wowze**
public static final	PROTO_WOWZS
	Value: **wowzs**
public static final	STAT_connect_application_not_available
	Value: **302**
public static final	STAT_connect_application_not_found
	Value: **404**
public static final	STAT_connect_bad_gateway
	Value: **502**
public static final	STAT_connect_internal_error
	Value: **500**
public static final	STAT_connect_license_limit
	Value: **413**
public static final	STAT_connect_pending_wating
	Value: **100**
public static final	STAT_connect_redirect
	Value: **302**
public static final	STAT_connect_rejected_by_application
	Value: **401**
public static final	STAT_connect_rejected_by_module
	Value: **403**
public static final	STAT_connect_resource_limit
	Value: **409**
public static final	STAT_connect_service_unavailable
	Value: **503**
public static final	STAT_connect_successful
	Value: **200**
public static final	STAT_connect_unknown_protocol
	Value: **400**

public static final	STAT_general_internal_error
	Value: **500**
public static final	STAT_general_successful
	Value: **200**
public static final	STAT_play_bad_request
	Value: **400**
public static final	STAT_play_internal_error
	Value: **500**
public static final	STAT_play_rejected_by_application
	Value: **401**
public static final	STAT_play_rejected_by_module
	Value: **403**
public static final	STAT_play_stream_not_found
	Value: **404**
public static final	STAT_play_successful
	Value: **200**
public static final	STAT_play_unsupported_media_type
	Value: **415**
public static final	STAT_publish_bad_request
	Value: **400**
public static final	STAT_publish_in_use
	Value: **409**
public static final	STAT_publish_internal_error
	Value: **500**
public static final	STAT_publish_rejected_by_application
	Value: **401**
public static final	STAT_publish_successful
	Value: **200**
public static final	STAT_publish_unsupported_media_type
	Value: **415**
public static final	STAT_stop_client_disconnect
	Value: **408**

public static final	STAT_stop_successful	
	Value: **200**	

Constructor Summary

public	WMSLoggerIDs()

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

FD_x_event

public static final java.lang.String **FD_x_event**

Constant value: **x-event**

FD_x_category

public static final java.lang.String **FD_x_category**

Constant value: **x-category**

FD_date

public static final java.lang.String **FD_date**

Constant value: **date**

FD_time

public static final java.lang.String **FD_time**

Constant value: **time**

FD_tz

public static final java.lang.String **FD_tz**

Constant value: **tz**

FD_x_ctx

public static final java.lang.String **FD_x_ctx**

Constant value: **x-ctx**

FD_x_ctx_override

public static final java.lang.String **FD_x_ctx_override**

Constant value: **x-ctx-override**

FD_x_vhost

public static final java.lang.String **FD_x_vhost**

Constant value: **x-vhost**

FD_x_app

public static final java.lang.String **FD_x_app**

Constant value: **x-app**

FD_x_appinst

public static final java.lang.String **FD_x_appinst**

Constant value: **x-appinst**

FD_c_ip

public static final java.lang.String **FD_c_ip**

Constant value: **c-ip**

FD_c_proto

public static final java.lang.String **FD_c_proto**

Constant value: **c-proto**

FD_s_uri

public static final java.lang.String **FD_s_uri**

Constant value: **s-uri**

FD_c_referrer

public static final java.lang.String **FD_c_referrer**

Constant value: **c-referrer**

FD_c_user_agent

`public static final java.lang.String` **`FD_c_user_agent`**

Constant value: **`c-user-agent`**

FD_c_client_id

`public static final java.lang.String` **`FD_c_client_id`**

Constant value: **`c-client-id`**

FD_cs_bytes

`public static final java.lang.String` **`FD_cs_bytes`**

Constant value: **`cs-bytes`**

FD_sc_bytes

`public static final java.lang.String` **`FD_sc_bytes`**

Constant value: **`sc-bytes`**

FD_x_sname

`public static final java.lang.String` **`FD_x_sname`**

Constant value: **`x-sname`**

FD_x_file_size

`public static final java.lang.String` **`FD_x_file_size`**

Constant value: **`x-file-size`**

FD_x_file_length

`public static final java.lang.String` **`FD_x_file_length`**

Constant value: **`x-file-length`**

FD_x_spos

`public static final java.lang.String` **`FD_x_spos`**

Constant value: **`x-spos`**

FD_cs_stream_bytes

`public static final java.lang.String` **`FD_cs_stream_bytes`**

Constant value: **cs-stream-bytes**

FD_sc_stream_bytes

public static final java.lang.String **FD_sc_stream_bytes**

Constant value: **sc-stream-bytes**

FD_s_ip

public static final java.lang.String **FD_s_ip**

Constant value: **s-ip**

FD_x_duration

public static final java.lang.String **FD_x_duration**

Constant value: **x-duration**

FD_x_status

public static final java.lang.String **FD_x_status**

Constant value: **x-status**

FD_cs_uri_stem

public static final java.lang.String **FD_cs_uri_stem**

Constant value: **cs-uri-stem**

FD_cs_uri_query

public static final java.lang.String **FD_cs_uri_query**

Constant value: **cs-uri-query**

FD_x_sname_query

public static final java.lang.String **FD_x_sname_query**

Constant value: **x-sname-query**

FD_x_file_name

public static final java.lang.String **FD_x_file_name**

Constant value: **x-file-name**

FD_x_file_ext

```
public static final java.lang.String FD_x_file_ext
```

Constant value: **x-file-ext**

FD_x_suri_query

```
public static final java.lang.String FD_x_suri_query
```

Constant value: **x-suri-query**

FD_x_suri_stem

```
public static final java.lang.String FD_x_suri_stem
```

Constant value: **x-suri-stem**

FD_x_suri

```
public static final java.lang.String FD_x_suri
```

Constant value: **x-suri**

FD_x_severity

```
public static final java.lang.String FD_x_severity
```

Constant value: **x-severity**

FD_x_comment

```
public static final java.lang.String FD_x_comment
```

Constant value: **x-comment**

FD_s_port

```
public static final java.lang.String FD_s_port
```

Constant value: **s-port**

FD_x_stream_id

```
public static final java.lang.String FD_x_stream_id
```

Constant value: **x-stream-id**

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CAT_server

public static final java.lang.String **CAT_server**

Constant value: **server**

CAT_vhost

public static final java.lang.String **CAT_vhost**

Constant value: **vhost**

CAT_application

public static final java.lang.String **CAT_application**

Constant value: **application**

CAT_session

public static final java.lang.String **CAT_session**

Constant value: **session**

CAT_stream

public static final java.lang.String **CAT_stream**

Constant value: **stream**

CAT_rtsp

public static final java.lang.String **CAT_rtsp**

Constant value: **rtsp**

CAT_cupertino

public static final java.lang.String **CAT_cupertino**

Constant value: **cupertino**

CAT_sanjose

public static final java.lang.String **CAT_sanjose**

Constant value: **sanjose**

CAT_smoothstreaming

public static final java.lang.String **CAT_smoothstreaming**

Constant value: `smoothstreaming`

CAT_dvrchunk

`public static final java.lang.String` **`CAT_dvrchunk`**

Constant value: **`dvrchunk`**

CAT_webm

`public static final java.lang.String` **`CAT_webm`**

Constant value: **`webm`**

CAT_transcoder

`public static final java.lang.String` **`CAT_transcoder`**

Constant value: **`transcoder`**

CAT_mpegdash

`public static final java.lang.String` **`CAT_mpegdash`**

Constant value: **`mpegdash`**

EVT_connect_pending

`public static final java.lang.String` **`EVT_connect_pending`**

Constant value: **`connect-pending`**

EVT_connect

`public static final java.lang.String` **`EVT_connect`**

Constant value: **`connect`**

EVT_connect_burst

`public static final java.lang.String` **`EVT_connect_burst`**

Constant value: **`connect-burst`**

EVT_disconnect

`public static final java.lang.String` **`EVT_disconnect`**

Constant value: **`disconnect`**

EVT_publish

public static final java.lang.String **EVT_publish**

Constant value: **publish**

EVT_unpublish

public static final java.lang.String **EVT_unpublish**

Constant value: **unpublish**

EVT_play

public static final java.lang.String **EVT_play**

Constant value: **play**

EVT_pause

public static final java.lang.String **EVT_pause**

Constant value: **pause**

EVT_setbuffertime

public static final java.lang.String **EVT_setbuffertime**

Constant value: **setbuffertime**

EVT_create

public static final java.lang.String **EVT_create**

Constant value: **create**

EVT_destroy

public static final java.lang.String **EVT_destroy**

Constant value: **destroy**

EVT_setstreamtype

public static final java.lang.String **EVT_setstreamtype**

Constant value: **setstreamtype**

EVT_unpause

public static final java.lang.String **EVT_unpause**

Constant value: **unpause**

EVT_seek

public static final java.lang.String **EVT_seek**

Constant value: **seek**

EVT_stop

public static final java.lang.String **EVT_stop**

Constant value: **stop**

EVT_record

public static final java.lang.String **EVT_record**

Constant value: **record**

EVT_recordstop

public static final java.lang.String **EVT_recordstop**

Constant value: **recordstop**

EVT_server_start

public static final java.lang.String **EVT_server_start**

Constant value: **server-start**

EVT_server_stop

public static final java.lang.String **EVT_server_stop**

Constant value: **server-stop**

EVT_vhost_start

public static final java.lang.String **EVT_vhost_start**

Constant value: **vhost-start**

EVT_vhost_stop

public static final java.lang.String **EVT_vhost_stop**

Constant value: **vhost-stop**

EVT_app_start

public static final java.lang.String **EVT_app_start**

Constant value: **app-start**

EVT_app_stop

public static final java.lang.String **EVT_app_stop**

Constant value: **app-stop**

EVT_comment

public static final java.lang.String **EVT_comment**

Constant value: **comment**

EVT_announce

public static final java.lang.String **EVT_announce**

Constant value: **announce**

EVT_describe

public static final java.lang.String **EVT_describe**

Constant value: **describe**

EVT_decoderaudiostart

public static final java.lang.String **EVT_decoderaudiostart**

Constant value: **decoder-audio-start**

EVT_decoderaudiostop

public static final java.lang.String **EVT_decoderaudiostop**

Constant value: **decoder-audio-stop**

EVT_decodervideostart

public static final java.lang.String **EVT_decodervideostart**

Constant value: **decoder-video-start**

EVT_decodervideostop

```
public static final java.lang.String EVT_decodervideostop
```

Constant value: **decoder-video-stop**

EVT_encoderaudiostart

```
public static final java.lang.String EVT_encoderaudiostart
```

Constant value: **encoder-audio-start**

EVT_encoderaudiostop

```
public static final java.lang.String EVT_encoderaudiostop
```

Constant value: **encoder-audio-stop**

EVT_encodervideostart

```
public static final java.lang.String EVT_encodervideostart
```

Constant value: **encoder-video-start**

EVT_encodervideostop

```
public static final java.lang.String EVT_encodervideostop
```

Constant value: **encoder-video-stop**

CTRL_playlist_node

```
public static final java.lang.String CTRL_playlist_node
```

Constant value: **CTRL-playlist-node**

STAT_connect_pending_wating

```
public static final int STAT_connect_pending_wating
```

Constant value: **100**

STAT_connect_successful

```
public static final int STAT_connect_successful
```

Constant value: **200**

STAT_connect_application_not_available

public static final int **STAT_connect_application_not_available**

Constant value: **302**

STAT_connect_unknown_protocol

public static final int **STAT_connect_unknown_protocol**

Constant value: **400**

STAT_connect_rejected_by_application

public static final int **STAT_connect_rejected_by_application**

Constant value: **401**

STAT_connect_rejected_by_module

public static final int **STAT_connect_rejected_by_module**

Constant value: **403**

STAT_connect_application_not_found

public static final int **STAT_connect_application_not_found**

Constant value: **404**

STAT_connect_resource_limit

public static final int **STAT_connect_resource_limit**

Constant value: **409**

STAT_connect_license_limit

public static final int **STAT_connect_license_limit**

Constant value: **413**

STAT_connect_redirect

public static final int **STAT_connect_redirect**

Constant value: **302**

STAT_connect_internal_error

public static final int **STAT_connect_internal_error**

Constant value: **500**

STAT_connect_bad_gateway

public static final int **STAT_connect_bad_gateway**

Constant value: **502**

STAT_connect_service_unavailable

public static final int **STAT_connect_service_unavailable**

Constant value: **503**

STAT_play_successful

public static final int **STAT_play_successful**

Constant value: **200**

STAT_play_bad_request

public static final int **STAT_play_bad_request**

Constant value: **400**

STAT_play_rejected_by_application

public static final int **STAT_play_rejected_by_application**

Constant value: **401**

STAT_play_rejected_by_module

public static final int **STAT_play_rejected_by_module**

Constant value: **403**

STAT_play_stream_not_found

public static final int **STAT_play_stream_not_found**

Constant value: **404**

STAT_play_unsupported_media_type

public static final int **STAT_play_unsupported_media_type**

Constant value: **415**

STAT_play_internal_error

public static final int **STAT_play_internal_error**

Constant value: **500**

STAT_publish_successful

public static final int **STAT_publish_successful**

Constant value: **200**

STAT_publish_bad_request

public static final int **STAT_publish_bad_request**

Constant value: **400**

STAT_publish_rejected_by_application

public static final int **STAT_publish_rejected_by_application**

Constant value: **401**

STAT_publish_in_use

public static final int **STAT_publish_in_use**

Constant value: **409**

STAT_publish_unsupported_media_type

public static final int **STAT_publish_unsupported_media_type**

Constant value: **415**

STAT_publish_internal_error

public static final int **STAT_publish_internal_error**

Constant value: **500**

STAT_stop_successful

public static final int **STAT_stop_successful**

Constant value: **200**

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STAT_stop_client_disconnect

`public static final int STAT_stop_client_disconnect`

Constant value: **408**

STAT_general_successful

`public static final int STAT_general_successful`

Constant value: **200**

STAT_general_internal_error

`public static final int STAT_general_internal_error`

Constant value: **500**

PROTO_RTMP

`public static final java.lang.String PROTO_RTMP`

Constant value: **rtmp**

PROTO_RTMPS

`public static final java.lang.String PROTO_RTMPS`

Constant value: **rtmps**

PROTO_RTMPT

`public static final java.lang.String PROTO_RTMPT`

Constant value: **rtmpt (HTTP-1.1)**

PROTO_RTMPTS

`public static final java.lang.String PROTO_RTMPTS`

Constant value: **rtmpts (HTTP-1.1)**

PROTO_RTMPE

`public static final java.lang.String PROTO_RTMPE`

Constant value: **rtmpe**

PROTO_RTMPTE

`public static final java.lang.String PROTO_RTMPTE`

Constant value: **rtmpte (HTTP-1.1)**

PROTO_WOWZ

`public static final java.lang.String` **`PROTO_WOWZ`**

Constant value: **wowz**

PROTO_WOWZE

`public static final java.lang.String` **`PROTO_WOWZE`**

Constant value: **wowze**

PROTO_WOWZS

`public static final java.lang.String` **`PROTO_WOWZS`**

Constant value: **wowzs**

PROTO_RTSP

`public static final java.lang.String` **`PROTO_RTSP`**

Constant value: **rtsp**

PROTO_HTTPSTREAMER

`public static final java.lang.String` **`PROTO_HTTPSTREAMER`**

Constant value: **http (streamer)**

PROTO_HTTPCUPERTINO

`public static final java.lang.String` **`PROTO_HTTPCUPERTINO`**

Constant value: **http (cupertino)**

PROTO_HTTPSMOOTH

`public static final java.lang.String` **`PROTO_HTTPSMOOTH`**

Constant value: **http (smooth)**

PROTO_HTTPSANJOSE

`public static final java.lang.String` **`PROTO_HTTPSANJOSE`**

Constant value: **http (sanjose)**

PROTO_HTTPDVRCHUNK

`public static final java.lang.String` **`PROTO_HTTPDVRCHUNK`**

   Constant value: **`http (dvr)`**

PROTO_HTTPMPEGDASH

`public static final java.lang.String` **`PROTO_HTTPMPEGDASH`**

   Constant value: **`http (mpegdash)`**

PROTO_HTTPSSTREAMER

`public static final java.lang.String` **`PROTO_HTTPSSTREAMER`**

   Constant value: **`https (streamer)`**

PROTO_HTTPSCUPERTINO

`public static final java.lang.String` **`PROTO_HTTPSCUPERTINO`**

   Constant value: **`https (cupertino)`**

PROTO_HTTPSSMOOTH

`public static final java.lang.String` **`PROTO_HTTPSSMOOTH`**

   Constant value: **`https (smooth)`**

PROTO_HTTPSSANJOSE

`public static final java.lang.String` **`PROTO_HTTPSSANJOSE`**

   Constant value: **`https (sanjose)`**

PROTO_HTTPSDVRCHUNK

`public static final java.lang.String` **`PROTO_HTTPSDVRCHUNK`**

   Constant value: **`https (dvr)`**

FD_ALL

`public static final java.lang.String` **`FD_ALL`**

CAT_ALL

`public static final java.lang.String` **`CAT_ALL`**

EVT_ALL

`public static final java.lang.String `**`EVT_ALL`**

Constructors

WMSLoggerIDs

`public `**`WMSLoggerIDs`**`()`

Package

com.wowza.wms.media.mp3.model.idtags

com.wowza.wms.media.mp3.model.idtags
Class ID3Frames

```
java.lang.Object
    │
    └─com.wowza.wms.media.mp3.model.idtags.ID3Frames
```

public class **ID3Frames**
extends Object

Field Summary

public static final	**ID3FOOTER_SIZE** Value: **10**
public static final	**ID3HEADER_SIZE** Value: **10**
public static final	**ID3HEADER_VERSION** Value: **1024**
public static final	**ID3HEADERFLAGS_DEFAULT** Value: **0**
public static final	**ID3HEADERFLAGS_EXPERIMENTAL** Value: **32**
public static final	**ID3HEADERFLAGS_EXTENDED** Value: **64**
public static final	**ID3HEADERFLAGS_FOOTERPRESENT** Value: **16**
public static final	**ID3HEADERFLAGS_UNSYNC** Value: **128**

Constructor Summary

public	**ID3Frames**()

Method Summary

void	**clear**()
java.util.List	**getFrameMapIds**()

java.util.List	[getFrames](#)()
Object	[getLock](#)()
int	[getSize](#)()
boolean	[isEmpty](#)()
void	[putFrame](#)([IID3V2Frame](#) frame)
[IID3V2Frame](#)	[removeFrame](#)([IID3V2Frame](#) frame)
byte[]	[serialize](#)()
byte[]	[serialize](#)(boolean includeHeader, boolean includeFooter, int flags)
static int	[serializeFooter](#)(byte[] buffer, int offset, int flags, int size)
static int	[serializeHeader](#)(byte[] buffer, int offset, int flags, int size)
int	[serializeTags](#)(byte[] buffer, int offset)

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

ID3HEADER_VERSION

public static final int **ID3HEADER_VERSION**

Constant value: **1024**

ID3HEADER_SIZE

public static final int **ID3HEADER_SIZE**

Constant value: **10**

ID3FOOTER_SIZE

public static final int **ID3FOOTER_SIZE**

Constant value: **10**

ID3HEADERFLAGS_DEFAULT

`public static final int` **`ID3HEADERFLAGS_DEFAULT`**

Constant value: **0**

ID3HEADERFLAGS_UNSYNC

`public static final int` **`ID3HEADERFLAGS_UNSYNC`**

Constant value: **128**

ID3HEADERFLAGS_EXTENDED

`public static final int` **`ID3HEADERFLAGS_EXTENDED`**

Constant value: **64**

ID3HEADERFLAGS_EXPERIMENTAL

`public static final int` **`ID3HEADERFLAGS_EXPERIMENTAL`**

Constant value: **32**

ID3HEADERFLAGS_FOOTERPRESENT

`public static final int` **`ID3HEADERFLAGS_FOOTERPRESENT`**

Constant value: **16**

Constructors

ID3Frames

`public` **`ID3Frames`**`()`

Methods

getLock

`public Object` **`getLock`**`()`

clear

`public void` **`clear`**`()`

isEmpty

```
public boolean isEmpty()
```

putFrame

```
public void putFrame(IID3V2Frame frame)
```

removeFrame

```
public IID3V2Frame removeFrame(IID3V2Frame frame)
```

getFrames

```
public java.util.List getFrames()
```

getFrameMapIds

```
public java.util.List getFrameMapIds()
```

getSize

```
public int getSize()
```

serializeTags

```
public int serializeTags(byte[] buffer,
        int offset)
```

serializeHeader

```
public static int serializeHeader(byte[] buffer,
        int offset,
        int flags,
        int size)
```

serializeFooter

```
public static int serializeFooter(byte[] buffer,
        int offset,
        int flags,
        int size)
```

serialize

```
public byte[] serialize()
```

serialize

```
public byte[] serialize(boolean includeHeader,
        boolean includeFooter,
        int flags)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameAttachedPicture

```
java.lang.Object
    |
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
        |
        +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameAttachedPicture
```

All Implemented Interfaces:
> IID3V2Frame

---

public class **ID3V2FrameAttachedPicture**
extends ID3V2FrameBase

Field Summary

public static final	**MIMETYPES_JPEG** Value: **image/jpeg**
public static final	**MIMETYPES_PNG** Value: **image/png**
public static final	**MIMETYPES_URL** Value: **-->**
public static	**PICTUREMAXFILESIZE**
public static final	**PICTURETYPE_ARTISTLOGO** Value: **19**
public static final	**PICTURETYPE_COVERBACK** Value: **4**
public static final	**PICTURETYPE_COVERFRONT** Value: **3**
public static final	**PICTURETYPE_FILEICON** Value: **1**
public static final	**PICTURETYPE_ILLUSTRATION** Value: **18**
public static final	**PICTURETYPE_MOVIESCREENCAPTURE** Value: **16**
public static final	**PICTURETYPE_OTHER** Value: **0**

---

public static final	PICTURETYPE_OTHERFILEICON
	Value: **2**
public static final	PICTURETYPE_PUBLISHERLOGO
	Value: **20**

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	ID3V2FrameAttachedPicture(String idStr, int flags)
public	ID3V2FrameAttachedPicture()

Method Summary

void	deserializeBody(byte[] buffer, int offset, int len)
int	getBodySize()
String	getDescription()
String	getMapIdStr()
String	getMimeType()
byte[]	getPictureData()
int	getPictureType()
int	getTextEncoding()
boolean	loadFile(java.io.File file)
int	serializeBody(byte[] buffer, int offset)
void	setDescription(String description)
void	setMimeType(String mimeType)

void	setPictureData(byte[] pictureData)
void	setPictureDataAsURL(String urlStr)
void	setPictureType(int pictureType)
void	setTextEncoding(int textEncoding)

Methods inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

byteStringLen, deserializeFrame, deserializeString, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeString, serializeStringLen, setFlags, setIdStr, trimTrailingZero

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.media.mp3.model.idtags.IID3V2Frame

deserializeBody, getBodySize, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeBody, setFlags, setIdStr

Fields

PICTURETYPE_OTHER

public static final int **PICTURETYPE_OTHER**

Constant value: **0**

PICTURETYPE_FILEICON

public static final int **PICTURETYPE_FILEICON**

Constant value: **1**

PICTURETYPE_OTHERFILEICON

public static final int **PICTURETYPE_OTHERFILEICON**

Constant value: **2**

PICTURETYPE_COVERFRONT

public static final int **PICTURETYPE_COVERFRONT**

Constant value: **3**

PICTURETYPE_COVERBACK

`public static final int` **`PICTURETYPE_COVERBACK`**

Constant value: **4**

PICTURETYPE_MOVIESCREENCAPTURE

`public static final int` **`PICTURETYPE_MOVIESCREENCAPTURE`**

Constant value: **16**

PICTURETYPE_ILLUSTRATION

`public static final int` **`PICTURETYPE_ILLUSTRATION`**

Constant value: **18**

PICTURETYPE_ARTISTLOGO

`public static final int` **`PICTURETYPE_ARTISTLOGO`**

Constant value: **19**

PICTURETYPE_PUBLISHERLOGO

`public static final int` **`PICTURETYPE_PUBLISHERLOGO`**

Constant value: **20**

MIMETYPES_JPEG

`public static final java.lang.String` **`MIMETYPES_JPEG`**

Constant value: **`image/jpeg`**

MIMETYPES_PNG

`public static final java.lang.String` **`MIMETYPES_PNG`**

Constant value: **`image/png`**

MIMETYPES_URL

`public static final java.lang.String` **`MIMETYPES_URL`**

Constant value: **`-->`**

PICTUREMAXFILESIZE

```
public static long PICTUREMAXFILESIZE
```

Constructors

ID3V2FrameAttachedPicture

```
public ID3V2FrameAttachedPicture(String idStr,
                                 int flags)
```

ID3V2FrameAttachedPicture

```
public ID3V2FrameAttachedPicture()
```

Methods

serializeBody

```
public int serializeBody(byte[] buffer,
        int offset)
```

deserializeBody

```
public void deserializeBody(byte[] buffer,
        int offset,
        int len)
```

getMapIdStr

```
public String getMapIdStr()
```

getBodySize

```
public int getBodySize()
```

getTextEncoding

```
public int getTextEncoding()
```

setTextEncoding

```
public void setTextEncoding(int textEncoding)
```

getMimeType

```
public String getMimeType()
```

setMimeType

```
public void setMimeType(String mimeType)
```

getPictureType

```
public int getPictureType()
```

setPictureType

```
public void setPictureType(int pictureType)
```

getDescription

```
public String getDescription()
```

setDescription

```
public void setDescription(String description)
```

getPictureData

```
public byte[] getPictureData()
```

setPictureData

```
public void setPictureData(byte[] pictureData)
```

setPictureDataAsURL

```
public void setPictureDataAsURL(String urlStr)
```

loadFile

```
public boolean loadFile(java.io.File file)
```

```
public boolean loadFile(java.io.File file)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameBase

```
java.lang.Object
    |
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
```

All Implemented Interfaces:
> IID3V2Frame

Direct Known Subclasses:
> ID3V2FrameURLLink, ID3V2FrameTextInformation, ID3V2FrameSynchronizedText, ID3V2FrameRecommendedBufferSize, ID3V2FrameRawBytes, ID3V2FramePrivate, ID3V2FrameLinkedInformation, ID3V2FrameComment, ID3V2FrameAttachedPicture

---

public abstract class **ID3V2FrameBase**
extends Object
implements IID3V2Frame

Field Summary

public static final	**FLAGS_DEFAULT** Value: **0**
public static final	**HEADERSIZE** Value: **10**
public static final	**TAG_APIC** Value: **APIC**
public static final	**TAG_COMM** Value: **COMM**
public static final	**TAG_LINK** Value: **LINK**
public static final	**TAG_PRIV** Value: **PRIV**
public static final	**TAG_RBUF** Value: **RBUF**
public static final	**TAG_SYLT** Value: **SYLT**
public static final	**TAG_TALB** Value: **TALB**

public static final	TAG_TBPM	
	Value: **TBPM**	
public static final	TAG_TCOM	
	Value: **TCOM**	
public static final	TAG_TCON	
	Value: **TCON**	
public static final	TAG_TCOP	
	Value: **TCOP**	
public static final	TAG_TDEN	
	Value: **TDEN**	
public static final	TAG_TDLY	
	Value: **TDLY**	
public static final	TAG_TDOR	
	Value: **TDOR**	
public static final	TAG_TDRC	
	Value: **TDRC**	
public static final	TAG_TDRL	
	Value: **TDRL**	
public static final	TAG_TDTG	
	Value: **TDTG**	
public static final	TAG_TENC	
	Value: **TENC**	
public static final	TAG_TEXT	
	Value: **TEXT**	
public static final	TAG_TFLT	
	Value: **TFLT**	
public static final	TAG_TIPL	
	Value: **TIPL**	
public static final	TAG_TIT1	
	Value: **TIT1**	
public static final	TAG_TIT2	
	Value: **TIT2**	

public static final	TAG_TIT3 Value: **TIT3**
public static final	TAG_TKEY Value: **TKEY**
public static final	TAG_TLAN Value: **TLAN**
public static final	TAG_TLEN Value: **TLEN**
public static final	TAG_TMCL Value: **TMCL**
public static final	TAG_TMED Value: **TMED**
public static final	TAG_TMOO Value: **TMOO**
public static final	TAG_TOAL Value: **TOAL**
public static final	TAG_TOFN Value: **TOFN**
public static final	TAG_TOLY Value: **TOLY**
public static final	TAG_TOPE Value: **TOPE**
public static final	TAG_TOWN Value: **TOWN**
public static final	TAG_TPE1 Value: **TPE1**
public static final	TAG_TPE2 Value: **TPE2**
public static final	TAG_TPE3 Value: **TPE3**
public static final	TAG_TPE4 Value: **TPE4**

public static final	TAG_TPOS	
	Value: **TPOS**	
public static final	TAG_TPRO	
	Value: **TPRO**	
public static final	TAG_TPUB	
	Value: **TPUB**	
public static final	TAG_TRCK	
	Value: **TRCK**	
public static final	TAG_TRSN	
	Value: **TRSN**	
public static final	TAG_TRSO	
	Value: **TRSO**	
public static final	TAG_TSOA	
	Value: **TSOA**	
public static final	TAG_TSOP	
	Value: **TSOP**	
public static final	TAG_TSOT	
	Value: **TSOT**	
public static final	TAG_TSRC	
	Value: **TSRC**	
public static final	TAG_TSSE	
	Value: **TSSE**	
public static final	TAG_TSST	
	Value: **TSST**	
public static final	TAG_TXXX	
	Value: **TXXX**	
public static final	TAG_UNKN	
	Value: **UNKN**	
public static final	TAG_WCOM	
	Value: **WCOM**	
public static final	TAG_WCOP	
	Value: **WCOP**	

public static final	TAG_WOAF	
	Value: **WOAF**	
public static final	TAG_WOAR	
	Value: **WOAR**	
public static final	TAG_WOAS	
	Value: **WOAS**	
public static final	TAG_WORS	
	Value: **WORS**	
public static final	TAG_WPAY	
	Value: **WPAY**	
public static final	TAG_WPUB	
	Value: **WPUB**	
public static final	TAG_WXXX	
	Value: **WXXX**	
public static final	TAGS_TEXTINFORMATION	
public static final	TEXTENCODING_ISO_8859_1	
	Value: **0**	
public static final	TEXTENCODING_UTF16	
	Value: **1**	
public static final	TEXTENCODING_UTF16BE	
	Value: **2**	
public static final	TEXTENCODING_UTF8	
	Value: **3**	

Constructor Summary

public	ID3V2FrameBase(String idStr, int flags)

Method Summary

static int	byteStringLen(String value)
static ID3V2FrameBase	deserializeFrame(byte[] buffer, int offset, int len)
static String	deserializeString(byte[] buffer, int offset, int len)
int	getFlags()

String	[getIdStr]()	
String	[getMapIdStr]()	
int	[getSize]()	
int	[serialize](byte[] buffer, int offset)	
static int	[serializeString](String value, byte[] buffer, int offset)	
static int	[serializeStringLen](String value)	
void	[setFlags](int flags)	
void	[setIdStr](String idStr)	
static String	[trimTrailingZero](String value)	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.media.mp3.model.idtags.IID3V2Frame

[deserializeBody], [getBodySize], [getFlags], [getIdStr], [getMapIdStr], [getSize], [serialize], [serializeBody], [setFlags], [setIdStr]

Fields

HEADERSIZE

public static final int **HEADERSIZE**

Constant value: **10**

TEXTENCODING_ISO_8859_1

public static final int **TEXTENCODING_ISO_8859_1**

Constant value: **0**

TEXTENCODING_UTF16

public static final int **TEXTENCODING_UTF16**

Constant value: **1**

TEXTENCODING_UTF16BE

public static final int **TEXTENCODING_UTF16BE**

Constant value: **2**

TEXTENCODING_UTF8

public static final int **TEXTENCODING_UTF8**

Constant value: **3**

TAG_UNKN

public static final java.lang.String **TAG_UNKN**

Constant value: **UNKN**

TAG_PRIV

public static final java.lang.String **TAG_PRIV**

Constant value: **PRIV**

TAG_APIC

public static final java.lang.String **TAG_APIC**

Constant value: **APIC**

TAG_LINK

public static final java.lang.String **TAG_LINK**

Constant value: **LINK**

TAG_SYLT

public static final java.lang.String **TAG_SYLT**

Constant value: **SYLT**

TAG_RBUF

public static final java.lang.String **TAG_RBUF**

Constant value: **RBUF**

TAG_TALB

public static final java.lang.String **TAG_TALB**

Constant value: **TALB**

TAG_TBPM

```
public static final java.lang.String TAG_TBPM
```

Constant value: **TBPM**

TAG_TCOM

```
public static final java.lang.String TAG_TCOM
```

Constant value: **TCOM**

TAG_TCON

```
public static final java.lang.String TAG_TCON
```

Constant value: **TCON**

TAG_TCOP

```
public static final java.lang.String TAG_TCOP
```

Constant value: **TCOP**

TAG_TDEN

```
public static final java.lang.String TAG_TDEN
```

Constant value: **TDEN**

TAG_TDLY

```
public static final java.lang.String TAG_TDLY
```

Constant value: **TDLY**

TAG_TDOR

```
public static final java.lang.String TAG_TDOR
```

Constant value: **TDOR**

TAG_TDRC

```
public static final java.lang.String TAG_TDRC
```

Constant value: **TDRC**

TAG_TDRL

`public static final java.lang.String` **`TAG_TDRL`**

Constant value: **`TDRL`**

TAG_TDTG

`public static final java.lang.String` **`TAG_TDTG`**

Constant value: **`TDTG`**

TAG_TENC

`public static final java.lang.String` **`TAG_TENC`**

Constant value: **`TENC`**

TAG_TEXT

`public static final java.lang.String` **`TAG_TEXT`**

Constant value: **`TEXT`**

TAG_TFLT

`public static final java.lang.String` **`TAG_TFLT`**

Constant value: **`TFLT`**

TAG_TIPL

`public static final java.lang.String` **`TAG_TIPL`**

Constant value: **`TIPL`**

TAG_TIT1

`public static final java.lang.String` **`TAG_TIT1`**

Constant value: **`TIT1`**

TAG_TIT2

`public static final java.lang.String` **`TAG_TIT2`**

Constant value: **`TIT2`**

TAG_TIT3

public static final java.lang.String **TAG_TIT3**

Constant value: **TIT3**

TAG_TKEY

public static final java.lang.String **TAG_TKEY**

Constant value: **TKEY**

TAG_TLAN

public static final java.lang.String **TAG_TLAN**

Constant value: **TLAN**

TAG_TLEN

public static final java.lang.String **TAG_TLEN**

Constant value: **TLEN**

TAG_TMCL

public static final java.lang.String **TAG_TMCL**

Constant value: **TMCL**

TAG_TMED

public static final java.lang.String **TAG_TMED**

Constant value: **TMED**

TAG_TMOO

public static final java.lang.String **TAG_TMOO**

Constant value: **TMOO**

TAG_TOAL

public static final java.lang.String **TAG_TOAL**

Constant value: **TOAL**

TAG_TOFN

public static final java.lang.String **TAG_TOFN**

Constant value: **TOFN**

TAG_TOLY

public static final java.lang.String **TAG_TOLY**

Constant value: **TOLY**

TAG_TOPE

public static final java.lang.String **TAG_TOPE**

Constant value: **TOPE**

TAG_TOWN

public static final java.lang.String **TAG_TOWN**

Constant value: **TOWN**

TAG_TPE1

public static final java.lang.String **TAG_TPE1**

Constant value: **TPE1**

TAG_TPE2

public static final java.lang.String **TAG_TPE2**

Constant value: **TPE2**

TAG_TPE3

public static final java.lang.String **TAG_TPE3**

Constant value: **TPE3**

TAG_TPE4

public static final java.lang.String **TAG_TPE4**

Constant value: **TPE4**

TAG_TPOS

public static final java.lang.String **TAG_TPOS**

Constant value: **TPOS**

TAG_TPRO

`public static final java.lang.String` **`TAG_TPRO`**

Constant value: **`TPRO`**

TAG_TPUB

`public static final java.lang.String` **`TAG_TPUB`**

Constant value: **`TPUB`**

TAG_TRCK

`public static final java.lang.String` **`TAG_TRCK`**

Constant value: **`TRCK`**

TAG_TRSN

`public static final java.lang.String` **`TAG_TRSN`**

Constant value: **`TRSN`**

TAG_TRSO

`public static final java.lang.String` **`TAG_TRSO`**

Constant value: **`TRSO`**

TAG_TSOA

`public static final java.lang.String` **`TAG_TSOA`**

Constant value: **`TSOA`**

TAG_TSOP

`public static final java.lang.String` **`TAG_TSOP`**

Constant value: **`TSOP`**

TAG_TSOT

`public static final java.lang.String` **`TAG_TSOT`**

Constant value: **`TSOT`**

TAG_TSRC

public static final java.lang.String **TAG_TSRC**

Constant value: **TSRC**

TAG_TSSE

public static final java.lang.String **TAG_TSSE**

Constant value: **TSSE**

TAG_TSST

public static final java.lang.String **TAG_TSST**

Constant value: **TSST**

TAGS_TEXTINFORMATION

public static final java.lang.String **TAGS_TEXTINFORMATION**

TAG_WCOM

public static final java.lang.String **TAG_WCOM**

Constant value: **WCOM**

TAG_WCOP

public static final java.lang.String **TAG_WCOP**

Constant value: **WCOP**

TAG_WOAF

public static final java.lang.String **TAG_WOAF**

Constant value: **WOAF**

TAG_WOAR

public static final java.lang.String **TAG_WOAR**

Constant value: **WOAR**

TAG_WOAS

public static final java.lang.String **TAG_WOAS**

Constant value: **WOAS**

TAG_WORS

public static final java.lang.String **TAG_WORS**

Constant value: **WORS**

TAG_WPAY

public static final java.lang.String **TAG_WPAY**

Constant value: **WPAY**

TAG_WPUB

public static final java.lang.String **TAG_WPUB**

Constant value: **WPUB**

TAG_TXXX

public static final java.lang.String **TAG_TXXX**

Constant value: **TXXX**

TAG_COMM

public static final java.lang.String **TAG_COMM**

Constant value: **COMM**

TAG_WXXX

public static final java.lang.String **TAG_WXXX**

Constant value: **WXXX**

FLAGS_DEFAULT

public static final int **FLAGS_DEFAULT**

Constant value: **0**

Constructors

ID3V2FrameBase

public **ID3V2FrameBase**(String idStr,
                          int flags)

Methods

byteStringLen

```
public static int byteStringLen(String value)
```

serializeStringLen

```
public static int serializeStringLen(String value)
```

trimTrailingZero

```
public static String trimTrailingZero(String value)
```

serializeString

```
public static int serializeString(String value,
        byte[] buffer,
        int offset)
```

deserializeString

```
public static String deserializeString(byte[] buffer,
        int offset,
        int len)
```

deserializeFrame

```
public static ID3V2FrameBase deserializeFrame(byte[] buffer,
        int offset,
        int len)
```

serialize

```
public int serialize(byte[] buffer,
        int offset)
```

getIdStr

```
public String getIdStr()
```

setIdStr

```
public void setIdStr(String idStr)
```

getFlags

```
public int getFlags()
```

setFlags

```
public void setFlags(int flags)
```

getSize

```
public int getSize()
```

getMapIdStr

```
public String getMapIdStr()
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameComment

```
java.lang.Object
    |
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
          |
          +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameComment
```

All Implemented Interfaces:
> IID3V2Frame

---
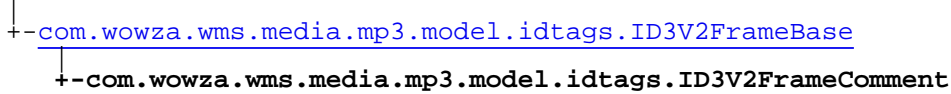
public class **ID3V2FrameComment**
extends ID3V2FrameBase

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	**ID3V2FrameComment**(String idStr, int flags)
public	**ID3V2FrameComment**(String idStr)
public	**ID3V2FrameComment**()

Method Summary

void	**deserializeBody**(byte[] buffer, int offset, int len)
int	**getBodySize**()
String	**getDescription**()
int	**getTextEncoding**()
String	**getValue**()
int	**serializeBody**(byte[] buffer, int offset)

void	[setDescription](String description)
void	[setTextEncoding](int textEncoding)
void	[setValue](String value)

Methods inherited from class [com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase](#)

[byteStringLen](#), [deserializeFrame](#), [deserializeString](#), [getFlags](#), [getIdStr](#), [getMapIdStr](#), [getSize](#), [serialize](#), [serializeString](#), [serializeStringLen](#), [setFlags](#), [setIdStr](#), [trimTrailingZero](#)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface [com.wowza.wms.media.mp3.model.idtags.IID3V2Frame](#)

[deserializeBody](#), [getBodySize](#), [getFlags](#), [getIdStr](#), [getMapIdStr](#), [getSize](#), [serialize](#), [serializeBody](#), [setFlags](#), [setIdStr](#)

Constructors

ID3V2FrameComment

public **ID3V2FrameComment**(String idStr,
                          int flags)

ID3V2FrameComment

public **ID3V2FrameComment**(String idStr)

ID3V2FrameComment

public **ID3V2FrameComment**()

Methods

serializeBody

public int **serializeBody**(byte[] buffer,
        int offset)

deserializeBody

```
public void deserializeBody(byte[] buffer,
        int offset,
        int len)
```

getBodySize

```
public int getBodySize()
```

getValue

```
public String getValue()
```

setValue

```
public void setValue(String value)
```

getTextEncoding

```
public int getTextEncoding()
```

setTextEncoding

```
public void setTextEncoding(int textEncoding)
```

getDescription

```
public String getDescription()
```

setDescription

```
public void setDescription(String description)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameLinkedInformation

```
java.lang.Object
    |
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
          |
          +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameLinkedInformation
```

All Implemented Interfaces:
> IID3V2Frame

---

public class **ID3V2FrameLinkedInformation**
extends ID3V2FrameBase

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	**ID3V2FrameLinkedInformation**(String idStr, int flags)
public	**ID3V2FrameLinkedInformation**()

Method Summary

void	**deserializeBody**(byte[] buffer, int offset, int len)
int	**getBodySize**()
byte[]	**getData**()
String	**getDescription**()
long	**getFrameIdentifier**()
String	**getURL**()
int	**serializeBody**(byte[] buffer, int offset)

---

void	[setData](byte[] data)
void	[setDescription](String description)
void	[setFrameIdentifier](long frameIdentifier)
void	[setURL](String url)

Methods inherited from class [com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase](#)

[byteStringLen](#), [deserializeFrame](#), [deserializeString](#), [getFlags](#), [getIdStr](#), [getMapIdStr](#), [getSize](#), [serialize](#), [serializeString](#), [serializeStringLen](#), [setFlags](#), [setIdStr](#), [trimTrailingZero](#)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface [com.wowza.wms.media.mp3.model.idtags.IID3V2Frame](#)

[deserializeBody](#), [getBodySize](#), [getFlags](#), [getIdStr](#), [getMapIdStr](#), [getSize](#), [serialize](#), [serializeBody](#), [setFlags](#), [setIdStr](#)

Constructors

ID3V2FrameLinkedInformation

```
public ID3V2FrameLinkedInformation(String idStr,
                                   int flags)
```

ID3V2FrameLinkedInformation

```
public ID3V2FrameLinkedInformation()
```

Methods

serializeBody

```
public int serializeBody(byte[] buffer,
        int offset)
```

deserializeBody

```
public void deserializeBody(byte[] buffer,
        int offset,
        int len)
```

getBodySize

```
public int getBodySize()
```

getDescription

```
public String getDescription()
```

setDescription

```
public void setDescription(String description)
```

getFrameIdentifier

```
public long getFrameIdentifier()
```

setFrameIdentifier

```
public void setFrameIdentifier(long frameIdentifier)
```

getURL

```
public String getURL()
```

setURL

```
public void setURL(String url)
```

getData

```
public byte[] getData()
```

setData

```
public void setData(byte[] data)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FramePrivate

```
java.lang.Object
   |
   +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
        |
        +-com.wowza.wms.media.mp3.model.idtags.ID3V2FramePrivate
```

All Implemented Interfaces:
> IID3V2Frame

---
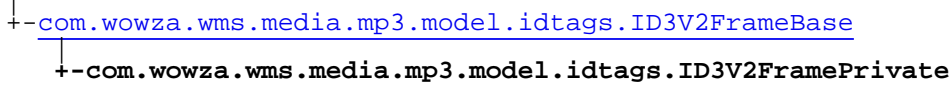
public class **ID3V2FramePrivate**
extends ID3V2FrameBase

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	**ID3V2FramePrivate**(String idStr, int flags)
public	**ID3V2FramePrivate**()

Method Summary

void	**deserializeBody**(byte[] buffer, int offset, int len)
int	**getBodySize**()
byte[]	**getData**()
String	**getOwnerIdentifier**()
int	**serializeBody**(byte[] buffer, int offset)
void	**setData**(byte[] data)
void	**setOwnerIdentifier**(String ownerIdentifier)

Methods inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

---

byteStringLen, deserializeFrame, deserializeString, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeString, serializeStringLen, setFlags, setIdStr, trimTrailingZero

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.media.mp3.model.idtags.IID3V2Frame

deserializeBody, getBodySize, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeBody, setFlags, setIdStr

Constructors

ID3V2FramePrivate

public **ID3V2FramePrivate**(String idStr,
                              int flags)

ID3V2FramePrivate

public **ID3V2FramePrivate**()

Methods

serializeBody

public int **serializeBody**(byte[] buffer,
        int offset)

deserializeBody

public void **deserializeBody**(byte[] buffer,
        int offset,
        int len)

getBodySize

public int **getBodySize**()

getOwnerIdentifier

public String **getOwnerIdentifier**()

setOwnerIdentifier

```
public void setOwnerIdentifier(String ownerIdentifier)
```

getData

```
public byte[] getData()
```

setData

```
public void setData(byte[] data)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameRawBytes

```
java.lang.Object
    |
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
        |
        +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameRawBytes
```

All Implemented Interfaces:
> IID3V2Frame

---
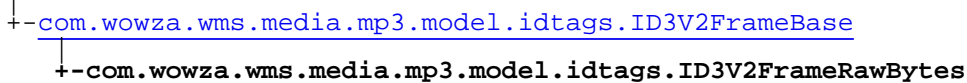
public class **ID3V2FrameRawBytes**
extends ID3V2FrameBase

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	ID3V2FrameRawBytes(String idStr, int flags)
public	ID3V2FrameRawBytes(String idStr)

Method Summary

void	deserializeBody(byte[] buffer, int offset, int len)
int	getBodySize()
int	serializeBody(byte[] buffer, int offset)

Methods inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
byteStringLen, deserializeFrame, deserializeString, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeString, serializeStringLen, setFlags, setIdStr, trimTrailingZero

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Methods inherited from interface com.wowza.wms.media.mp3.model.idtags.IID3V2Frame

deserializeBody, getBodySize, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeBody, setFlags, setIdStr

Constructors

ID3V2FrameRawBytes

```
public ID3V2FrameRawBytes(String idStr,
                          int flags)
```

ID3V2FrameRawBytes

```
public ID3V2FrameRawBytes(String idStr)
```

Methods

serializeBody

```
public int serializeBody(byte[] buffer,
        int offset)
```

deserializeBody

```
public void deserializeBody(byte[] buffer,
        int offset,
        int len)
```

getBodySize

```
public int getBodySize()
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameRecommendedBufferSize

```
java.lang.Object
    |
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
        |
        +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameRecommendedBufferSize
```
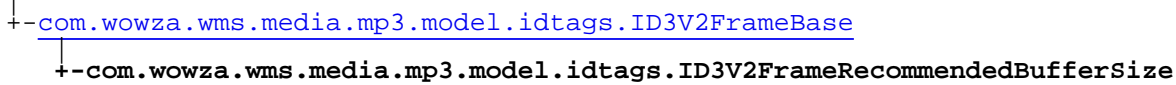
All Implemented Interfaces:
> IID3V2Frame

---

public class **ID3V2FrameRecommendedBufferSize**
extends ID3V2FrameBase

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	**ID3V2FrameRecommendedBufferSize**(String idStr, int flags)
public	**ID3V2FrameRecommendedBufferSize**()

Method Summary

void	**deserializeBody**(byte[] buffer, int offset, int len)
int	**getBodySize**()
int	**getBufferSize**()
byte	**getEmbeddedFlag**()
long	**getOffsetToNextTag**()
int	**serializeBody**(byte[] buffer, int offset)
void	**setBufferSize**(int bufferSize)

---

void	setEmbeddedFlag(byte embeddedFlag)
void	setOffsetToNextTag(long offsetToNextTag)

Methods inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

byteStringLen, deserializeFrame, deserializeString, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeString, serializeStringLen, setFlags, setIdStr, trimTrailingZero

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.media.mp3.model.idtags.IID3V2Frame

deserializeBody, getBodySize, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeBody, setFlags, setIdStr

Constructors

ID3V2FrameRecommendedBufferSize

```
public ID3V2FrameRecommendedBufferSize(String idStr,
                                       int flags)
```

ID3V2FrameRecommendedBufferSize

```
public ID3V2FrameRecommendedBufferSize()
```

Methods

serializeBody

```
public int serializeBody(byte[] buffer,
        int offset)
```

deserializeBody

```
public void deserializeBody(byte[] buffer,
        int offset,
        int len)
```

getBodySize

```
public int getBodySize()
```

getBufferSize

```
public int getBufferSize()
```

setBufferSize

```
public void setBufferSize(int bufferSize)
```

getEmbeddedFlag

```
public byte getEmbeddedFlag()
```

setEmbeddedFlag

```
public void setEmbeddedFlag(byte embeddedFlag)
```

getOffsetToNextTag

```
public long getOffsetToNextTag()
```

setOffsetToNextTag

```
public void setOffsetToNextTag(long offsetToNextTag)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameSynchronizedText

```
java.lang.Object
   |
   +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
        |
        +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameSynchronizedText
```

All Implemented Interfaces:
> IID3V2Frame

---

public class **ID3V2FrameSynchronizedText**
extends ID3V2FrameBase

Field Summary

public static final	**CONTENTTYPE_CHORD** Value: **5**
public static final	**CONTENTTYPE_EVENTS** Value: **4**
public static final	**CONTENTTYPE_LYRICS** Value: **1**
public static final	**CONTENTTYPE_MOVEMENT** Value: **3**
public static final	**CONTENTTYPE_OTHER** Value: **0**
public static final	**CONTENTTYPE_TRANSCRPTION** Value: **2**
public static final	**CONTENTTYPE_TRIVIA** Value: **6**
public static final	**CONTENTTYPE_URLIMAGES** Value: **8**
public static final	**CONTENTTYPE_URLWEBPAGES** Value: **7**
public static final	**TIMESTAMPFORMAT_MILLISECONDS** Value: **2**

public static final	TIMESTAMPFORMAT_MPEG	
	Value: **1**	

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	ID3V2FrameSynchronizedText(String idStr, int flags)
public	ID3V2FrameSynchronizedText()

Method Summary

void	addContentDescriptor(ID3V2FrameSynchronizedTextDescriptor contentDescriptor)
void	addContentDescriptor(long timecode, String value)
void	deserializeBody(byte[] buffer, int offset, int len)
int	getBodySize()
java.util.List	getContentDescriptors()
byte	getContentType()
String	getLanguage()
int	getTextEncoding()
byte	getTimeStampFormat()
int	serializeBody(byte[] buffer, int offset)
void	setContentType(byte contentType)
void	setLanguage(String language)
void	setTextEncoding(int textEncoding)

void	`setTimeStampFormat(byte timeStampFormat)`

Methods inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

byteStringLen, deserializeFrame, deserializeString, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeString, serializeStringLen, setFlags, setIdStr, trimTrailingZero

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.media.mp3.model.idtags.IID3V2Frame

deserializeBody, getBodySize, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeBody, setFlags, setIdStr

Fields

CONTENTTYPE_OTHER

public static final int **CONTENTTYPE_OTHER**

Constant value: **0**

CONTENTTYPE_LYRICS

public static final int **CONTENTTYPE_LYRICS**

Constant value: **1**

CONTENTTYPE_TRANSCRPTION

public static final int **CONTENTTYPE_TRANSCRPTION**

Constant value: **2**

CONTENTTYPE_MOVEMENT

public static final int **CONTENTTYPE_MOVEMENT**

Constant value: **3**

CONTENTTYPE_EVENTS

public static final int **CONTENTTYPE_EVENTS**

Constant value: **4**

CONTENTTYPE_CHORD

`public static final int` **`CONTENTTYPE_CHORD`**

Constant value: **5**

CONTENTTYPE_TRIVIA

`public static final int` **`CONTENTTYPE_TRIVIA`**

Constant value: **6**

CONTENTTYPE_URLWEBPAGES

`public static final int` **`CONTENTTYPE_URLWEBPAGES`**

Constant value: **7**

CONTENTTYPE_URLIMAGES

`public static final int` **`CONTENTTYPE_URLIMAGES`**

Constant value: **8**

TIMESTAMPFORMAT_MPEG

`public static final int` **`TIMESTAMPFORMAT_MPEG`**

Constant value: **1**

TIMESTAMPFORMAT_MILLISECONDS

`public static final int` **`TIMESTAMPFORMAT_MILLISECONDS`**

Constant value: **2**

Constructors

ID3V2FrameSynchronizedText

`public` **`ID3V2FrameSynchronizedText`**`(String idStr,`
`                                int flags)`

ID3V2FrameSynchronizedText

`public` **`ID3V2FrameSynchronizedText`**`()`

Methods

serializeBody

```
public int serializeBody(byte[] buffer,
        int offset)
```

deserializeBody

```
public void deserializeBody(byte[] buffer,
        int offset,
        int len)
```

getBodySize

```
public int getBodySize()
```

getTextEncoding

```
public int getTextEncoding()
```

setTextEncoding

```
public void setTextEncoding(int textEncoding)
```

getLanguage

```
public String getLanguage()
```

setLanguage

```
public void setLanguage(String language)
```

getTimeStampFormat

```
public byte getTimeStampFormat()
```

setTimeStampFormat

```
public void setTimeStampFormat(byte timeStampFormat)
```

getContentType

```
public byte getContentType()
```

setContentType

```
public void setContentType(byte contentType)
```

getContentDescriptors

```
public java.util.List getContentDescriptors()
```

addContentDescriptor

```
public void addContentDescriptor(ID3V2FrameSynchronizedTextDescriptor
contentDescriptor)
```

addContentDescriptor

```
public void addContentDescriptor(long timecode,
        String value)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameSynchronizedTextDescriptor

```
java.lang.Object
    │
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameSynchronizedTextDescriptor
```

public class **ID3V2FrameSynchronizedTextDescriptor**
extends Object

Constructor Summary

public	**ID3V2FrameSynchronizedTextDescriptor**()
public	**ID3V2FrameSynchronizedTextDescriptor**(long timecode, String value)

Method Summary

long	**getTimecode**()
String	**getValue**()
void	**setTimecode**(long timecode)
void	**setValue**(String value)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

ID3V2FrameSynchronizedTextDescriptor

public **ID3V2FrameSynchronizedTextDescriptor**()

ID3V2FrameSynchronizedTextDescriptor

public **ID3V2FrameSynchronizedTextDescriptor**(long timecode,
                                               String value)

Methods

getTimecode

```
public long getTimecode()
```

setTimecode

```
public void setTimecode(long timecode)
```

getValue

```
public String getValue()
```

setValue

```
public void setValue(String value)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameTextInformation

```
java.lang.Object
    |
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
          |
          +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameTextInformation
```

All Implemented Interfaces:

> IID3V2Frame

---
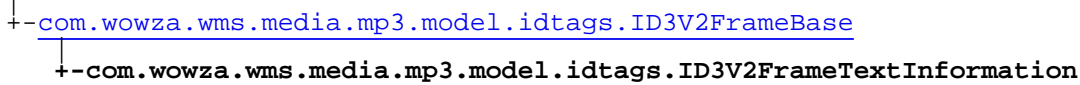
public class **ID3V2FrameTextInformation**
extends ID3V2FrameBase

Field Summary

protected	**addTrailingZero**

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	**ID3V2FrameTextInformation**(String idStr, int flags)
public	**ID3V2FrameTextInformation**(String idStr)

Method Summary

void	**deserializeBody**(byte[] buffer, int offset, int len)
int	**getBodySize**()
int	**getTextEncoding**()
String	**getValue**()
int	**serializeBody**(byte[] buffer, int offset)

void	[setTextEncoding](int textEncoding)
void	[setValue](String value)

Methods inherited from class [com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase](#)

[byteStringLen](#), [deserializeFrame](#), [deserializeString](#), [getFlags](#), [getIdStr](#), [getMapIdStr](#), [getSize](#), [serialize](#), [serializeString](#), [serializeStringLen](#), [setFlags](#), [setIdStr](#), [trimTrailingZero](#)

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface [com.wowza.wms.media.mp3.model.idtags.IID3V2Frame](#)

[deserializeBody](#), [getBodySize](#), [getFlags](#), [getIdStr](#), [getMapIdStr](#), [getSize](#), [serialize](#), [serializeBody](#), [setFlags](#), [setIdStr](#)

Fields

addTrailingZero

protected boolean **addTrailingZero**

Constructors

ID3V2FrameTextInformation

public **ID3V2FrameTextInformation**(String idStr,
                                    int flags)

ID3V2FrameTextInformation

public **ID3V2FrameTextInformation**(String idStr)

Methods

serializeBody

public int **serializeBody**(byte[] buffer,
        int offset)

deserializeBody

```
public void deserializeBody(byte[] buffer,
        int offset,
        int len)
```

getBodySize

```
public int getBodySize()
```

getValue

```
public String getValue()
```

setValue

```
public void setValue(String value)
```

getTextEncoding

```
public int getTextEncoding()
```

setTextEncoding

```
public void setTextEncoding(int textEncoding)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2FrameURLLink

```
java.lang.Object
    |
    +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
        |
        +-com.wowza.wms.media.mp3.model.idtags.ID3V2FrameURLLink
```

All Implemented Interfaces:
> IID3V2Frame

---
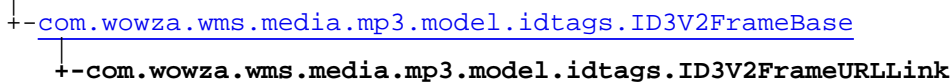
public class **ID3V2FrameURLLink**

extends ID3V2FrameBase

Fields inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase
FLAGS_DEFAULT, HEADERSIZE, TAG_APIC, TAG_COMM, TAG_LINK, TAG_PRIV, TAG_RBUF, TAG_SYLT, TAG_TALB, TAG_TBPM, TAG_TCOM, TAG_TCON, TAG_TCOP, TAG_TDEN, TAG_TDLY, TAG_TDOR, TAG_TDRC, TAG_TDRL, TAG_TDTG, TAG_TENC, TAG_TEXT, TAG_TFLT, TAG_TIPL, TAG_TIT1, TAG_TIT2, TAG_TIT3, TAG_TKEY, TAG_TLAN, TAG_TLEN, TAG_TMCL, TAG_TMED, TAG_TMOO, TAG_TOAL, TAG_TOFN, TAG_TOLY, TAG_TOPE, TAG_TOWN, TAG_TPE1, TAG_TPE2, TAG_TPE3, TAG_TPE4, TAG_TPOS, TAG_TPRO, TAG_TPUB, TAG_TRCK, TAG_TRSN, TAG_TRSO, TAG_TSOA, TAG_TSOP, TAG_TSOT, TAG_TSRC, TAG_TSSE, TAG_TSST, TAG_TXXX, TAG_UNKN, TAG_WCOM, TAG_WCOP, TAG_WOAF, TAG_WOAR, TAG_WOAS, TAG_WORS, TAG_WPAY, TAG_WPUB, TAG_WXXX, TAGS_TEXTINFORMATION, TEXTENCODING_ISO_8859_1, TEXTENCODING_UTF16, TEXTENCODING_UTF16BE, TEXTENCODING_UTF8

Constructor Summary

public	**ID3V2FrameURLLink**(String idStr, int flags)
public	**ID3V2FrameURLLink**(String idStr)

Method Summary

void	**deserializeBody**(byte[] buffer, int offset, int len)
int	**getBodySize**()
int	**getTextEncoding**()
String	**getURL**()
int	**serializeBody**(byte[] buffer, int offset)
void	**setTextEncoding**(int textEncoding)
void	**setURL**(String value)

Methods inherited from class com.wowza.wms.media.mp3.model.idtags.ID3V2FrameBase

byteStringLen, deserializeFrame, deserializeString, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeString, serializeStringLen, setFlags, setIdStr, trimTrailingZero

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.media.mp3.model.idtags.IID3V2Frame

deserializeBody, getBodySize, getFlags, getIdStr, getMapIdStr, getSize, serialize, serializeBody, setFlags, setIdStr

Constructors

ID3V2FrameURLLink

public **ID3V2FrameURLLink**(String idStr,
                            int flags)

ID3V2FrameURLLink

public **ID3V2FrameURLLink**(String idStr)

Methods

serializeBody

public int **serializeBody**(byte[] buffer,
          int offset)

deserializeBody

public void **deserializeBody**(byte[] buffer,
          int offset,
          int len)

getBodySize

public int **getBodySize**()

getURL

public String **getURL**()

setURL

```
public void setURL(String value)
```

getTextEncoding

```
public int getTextEncoding()
```

setTextEncoding

```
public void setTextEncoding(int textEncoding)
```

com.wowza.wms.media.mp3.model.idtags
Class ID3V2Utils

```
java.lang.Object
   │
   +-com.wowza.wms.media.mp3.model.idtags.ID3V2Utils
```

public class **ID3V2Utils**
extends Object

Constructor Summary

public	[ID3V2Utils](#)()

Method Summary

static int	[byteArrayToIntSafeSync](#)(byte[] b, int offset, int count)
static long	[byteArrayToLongSafeSync](#)(byte[] b, int offset, int count)
static void	[intToByteArraySafeSync](#)(int value, byte[] buffer, int offset, int size)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

ID3V2Utils

public **ID3V2Utils**()

Methods

byteArrayToLongSafeSync

```
public static long byteArrayToLongSafeSync(byte[] b,
        int offset,
        int count)
```

byteArrayToIntSafeSync

```
public static int byteArrayToIntSafeSync(byte[] b,
        int offset,
        int count)
```

intToByteArraySafeSync

```
public static void intToByteArraySafeSync(int value,
        byte[] buffer,
        int offset,
        int size)
```

```
public static int byteArrayToIntSafeSync(byte[] b,
        int offset,
        int count)
```

com.wowza.wms.media.mp3.model.idtags
Interface IID3V2Frame

All Known Implementing Classes:
> ID3V2FrameBase

---

public interface **IID3V2Frame**
extends

Method Summary

void	deserializeBody(byte[] buffer, int offset, int len)
int	getBodySize()
int	getFlags()
String	getIdStr()
String	getMapIdStr()
int	getSize()
int	serialize(byte[] buffer, int offset)
int	serializeBody(byte[] buffer, int offset)
void	setFlags(int flags)
void	setIdStr(String idStr)

Methods

getIdStr

public String **getIdStr**()

---

setIdStr

public void **setIdStr**(String idStr)

---

getMapIdStr

```
public String getMapIdStr()
```

getFlags

```
public int getFlags()
```

setFlags

```
public void setFlags(int flags)
```

getSize

```
public int getSize()
```

getBodySize

```
public int getBodySize()
```

deserializeBody

```
public void deserializeBody(byte[] buffer,
        int offset,
        int len)
```

serializeBody

```
public int serializeBody(byte[] buffer,
        int offset)
```

serialize

```
public int serialize(byte[] buffer,
        int offset)
```

Package
com.wowza.wms.mediacaster

com.wowza.wms.mediacaster
Interface IMediaCaster

public interface **IMediaCaster**
extends

Field Summary

public static final	MEDIACASTERTYPE_LIVEREPEATER Value: **1**
public static final	MEDIACASTERTYPE_RTPLIVE Value: **3**
public static final	MEDIACASTERTYPE_SHOUTCAST Value: **2**
public static final	MEDIACASTERTYPE_UNKNOWN Value: **0**
public static final	STREAMTIMEOUTREASON_GOOD Value: **100**
public static final	STREAMTIMEOUTREASON_MISSING Value: **101**
public static final	STREAMTIMEOUTREASON_NORTSPSESSION Value: **6**
public static final	STREAMTIMEOUTREASON_NOSESSION Value: **2**
public static final	STREAMTIMEOUTREASON_NOSTREAM Value: **4**
public static final	STREAMTIMEOUTREASON_NOTIMEOUT Value: **1**
public static final	STREAMTIMEOUTREASON_NOURL Value: **3**
public static final	STREAMTIMEOUTREASON_RECONNECTRUNNING Value: **5**
public static final	STREAMTIMEOUTREASON_UNKNOWN Value: **0**

Method Summary

boolean	**doWatchdog**() Idle processor
void	**forceReset**() Force a reset/reconnect of this media caster
IApplicationInstance	**getAppInstance**() Get the application instance this media caster is associated with
long	**getConnectLastAttempt**() Get system time in milliseconds of last connection attempt
long	**getConnectLastForceReset**() Get system time in milliseconds of last time forceReset was called
long	**getConnectLastSuccess**() Get system time in milliseconds of last connection success
int	**getIdleTimeout**() Get the idle timeout for this media caster (milliseconds)
MediaCasterItem	**getMediaCasterDef**() Get the media caster definition
String	**getMediaCasterId**() Get the media caster id
MediaCasterStreamItem	**getMediaCasterStreamItem**() Get the media caster item associated with this media caster
int	**getMediaCasterType**() Get the media caster type.
int	**getReconnectWaitTime**() Get the minimum time between reconnect attempts (milliseconds)
IMediaStream	**getStream**() Get the underlying stream being used by this media caster
Object	**getStreamIsRunningLock**() Get stream running lock
long	**getStreamLastSeq**() Get the AMFPacket sequence number of last watchdog processed packet
long	**getStreamMissingTime**() Get the time in milliseconds the stream has been missing
int	**getStreamTimeout**() Get the watchdog stream timeout (milliseconds)
long	**getStreamTimeoutLastReset**() Get system time in milliseconds of last time stream was reset due to stream timeout (debug)
long	**getStreamTimeoutLastTime**() Get system time in milliseconds of last time stream was considered in missing state (debug)

int	**getStreamTimeoutReason**()	
	Get the reason the stream is in timeout condition (debug)	
[IVHost](#)	**getVHost**()	
	Get the virtual host associated with this media caster	
void	**init**([MediaCasterStreamItem](#) mediaCasterStreamItem, [MediaCasterItem](#) mediaCasterDef, [IApplicationInstance](#) appInstance, String mediaCasterId, String streamExt)	
	Initialize the media caster	
boolean	**isSession**()	
	Is there current a session attached to this MediaCaster	
boolean	**isStream**()	
	Is there a stream associated with this MediaCaster	
boolean	**isStreamIsRunning**()	
	Return true if stream is currently running	
void	**registerPlayer**([IMediaStreamPlay](#) player)	
	Register a player with this media caster	
void	**sessionClosed**(org.apache.mina.common.IoSession session)	
	sessionClosed callback	
void	**sessionOpened**(org.apache.mina.common.IoSession session)	
	sessionOpened callback	
void	**setAppInstance**([IApplicationInstance](#) appInstance)	
	Set the application instance this media caster is assoicated with	
void	**setMediaCasterDef**([MediaCasterItem](#) mediaCasterDef)	
	Set the media caster definition	
void	**setMediaCasterId**(String mediaCasterId)	
	Get the media caster id	
void	**setMediaCasterType**(int mediaCasterType)	
	Set the media caster type.	
void	**setReconnectWaitTime**(int reconnectWaitTime)	
	Set the minimum time between reconnect attempts (milliseconds)	
void	**setStream**([IMediaStream](#) stream)	
	Set the underlying stream being used by this media caster	
void	**setStreamTimeout**(int streamTimeout)	
	Set the watchdog stream timeout (millseconds)	
void	**shutdown**(boolean isAppInstanceShutdown)	
	Shutdown media caster	
void	**unregisterPlayer**([IMediaStreamPlay](#) player)	
	Unregister a player with this media caster	

Fields

STREAMTIMEOUTREASON_UNKNOWN

`public static final int` **`STREAMTIMEOUTREASON_UNKNOWN`**

Constant value: **0**

STREAMTIMEOUTREASON_NOTIMEOUT

`public static final int` **`STREAMTIMEOUTREASON_NOTIMEOUT`**

Constant value: **1**

STREAMTIMEOUTREASON_NOSESSION

`public static final int` **`STREAMTIMEOUTREASON_NOSESSION`**

Constant value: **2**

STREAMTIMEOUTREASON_NOURL

`public static final int` **`STREAMTIMEOUTREASON_NOURL`**

Constant value: **3**

STREAMTIMEOUTREASON_NOSTREAM

`public static final int` **`STREAMTIMEOUTREASON_NOSTREAM`**

Constant value: **4**

STREAMTIMEOUTREASON_RECONNECTRUNNING

`public static final int` **`STREAMTIMEOUTREASON_RECONNECTRUNNING`**

Constant value: **5**

STREAMTIMEOUTREASON_NORTSPSESSION

`public static final int` **`STREAMTIMEOUTREASON_NORTSPSESSION`**

Constant value: **6**

STREAMTIMEOUTREASON_GOOD

`public static final int` **`STREAMTIMEOUTREASON_GOOD`**

Constant value: **100**

STREAMTIMEOUTREASON_MISSING

`public static final int` **`STREAMTIMEOUTREASON_MISSING`**

Constant value: **101**

MEDIACASTERTYPE_UNKNOWN

`public static final int` **`MEDIACASTERTYPE_UNKNOWN`**

Constant value: **0**

MEDIACASTERTYPE_LIVEREPEATER

`public static final int` **`MEDIACASTERTYPE_LIVEREPEATER`**

Constant value: **1**

MEDIACASTERTYPE_SHOUTCAST

`public static final int` **`MEDIACASTERTYPE_SHOUTCAST`**

Constant value: **2**

MEDIACASTERTYPE_RTPLIVE

`public static final int` **`MEDIACASTERTYPE_RTPLIVE`**

Constant value: **3**

Methods

init

```
public void init(MediaCasterStreamItem mediaCasterStreamItem,
        MediaCasterItem mediaCasterDef,
        IApplicationInstance appInstance,
        String mediaCasterId,
        String streamExt)
```

Initialize the media caster

Parameters:

mediaCasterStreamItem - media caster item
mediaCasterDef - media caster definition
appInstance - application instance
mediaCasterId - media caster id
streamExt - stream ext or prefix

getVHost

`public IVHost` **`getVHost`**`()`

Get the virtual host associated with this media caster

Returns:
    virtual host associated with this media caster

getMediaCasterId

public String **getMediaCasterId**()

Get the media caster id

Returns:
    media caster id

setMediaCasterId

public void **setMediaCasterId**(String mediaCasterId)

Get the media caster id

Parameters:
    mediaCasterId - media caster id

getStream

public [IMediaStream](#) **getStream**()

Get the underlying stream being used by this media caster

Returns:
    underlying stream being used by this media caster

setStream

public void **setStream**([IMediaStream](#) stream)

Set the underlying stream being used by this media caster

Parameters:
    stream - underlying stream being used by this media caster

getAppInstance

public [IApplicationInstance](#) **getAppInstance**()

Get the application instance this media caster is associated with

Returns:
    application instance this media caster is associated with

setAppInstance

public void **setAppInstance**([IApplicationInstance](#) appInstance)

Set the application instance this media caster is assoicated with

Parameters:
    appInstance - application instance this media caster is assoicated with

getMediaCasterDef

```
public MediaCasterItem getMediaCasterDef()
```

Get the media caster definition

Returns:
media caster definition

setMediaCasterDef

```
public void setMediaCasterDef(MediaCasterItem mediaCasterDef)
```

Set the media caster definition

Parameters:
mediaCasterDef - media caster definition

shutdown

```
public void shutdown(boolean isAppInstanceShutdown)
```

Shutdown media caster

Parameters:
isAppInstanceShutdown - is server shutdown

registerPlayer

```
public void registerPlayer(IMediaStreamPlay player)
```

Register a player with this media caster

Parameters:
player - player to register

unregisterPlayer

```
public void unregisterPlayer(IMediaStreamPlay player)
```

Unregister a player with this media caster

Parameters:
player - player to unregister

getIdleTimeout

```
public int getIdleTimeout()
```

Get the idle timeout for this media caster (milliseconds)

Returns:
idle timeout for this media caster (milliseconds)

sessionOpened

```
public void sessionOpened(org.apache.mina.common.IoSession session)
```

sessionOpened callback

Parameters:
    session - IO Session

sessionClosed

public void **sessionClosed**(org.apache.mina.common.IoSession session)

sessionClosed callback

Parameters:
    session - IO Session

getMediaCasterStreamItem

public [MediaCasterStreamItem](#) **getMediaCasterStreamItem**()

Get the media caster item associated with this media caster

Returns:
    media caster item associated with this media caster

forceReset

public void **forceReset**()

Force a reset/reconnect of this media caster

doWatchdog

public boolean **doWatchdog**()

Idle processor

Returns:
    return true if media caster unloaded due to idle event

getStreamTimeout

public int **getStreamTimeout**()

Get the watchdog stream timeout (milliseconds)

Returns:
    stream timeout

setStreamTimeout

public void **setStreamTimeout**(int streamTimeout)

Set the watchdog stream timeout (millseconds)

Parameters:
    streamTimeout - stream timeout

getStreamMissingTime

`public long getStreamMissingTime()`

Get the time in milliseconds the stream has been missing

Returns:
time in milliseconds the stream has been missing

getStreamLastSeq

`public long getStreamLastSeq()`

Get the AMFPacket sequence number of last watchdog processed packet

Returns:
AMFPacket sequence number

getStreamTimeoutReason

`public int getStreamTimeoutReason()`

Get the reason the stream is in timeout condition (debug)

Returns:
reason the stream is in timeout condition (debug)

getStreamTimeoutLastTime

`public long getStreamTimeoutLastTime()`

Get system time in milliseconds of last time stream was considered in missing state (debug)

Returns:
time in milliseconds of last time stream was considered in missing

getStreamTimeoutLastReset

`public long getStreamTimeoutLastReset()`

Get system time in milliseconds of last time stream was reset due to stream timeout (debug)

Returns:
time in milliseconds of last time stream was reset

isSession

`public boolean isSession()`

Is there current a session attached to this MediaCaster

Returns:
true is MediaCaster has session

isStream

`public boolean isStream()`

Is there a stream associated with this MediaCaster

Returns:

true if stream associated with this MediaCaster

getConnectLastAttempt

`public long` **`getConnectLastAttempt`**`()`

Get system time in milliseconds of last connection attempt

Returns:

system time in milliseconds of last connection attempt

getConnectLastSuccess

`public long` **`getConnectLastSuccess`**`()`

Get system time in milliseconds of last connection success

Returns:

system time in milliseconds of last connection success

getConnectLastForceReset

`public long` **`getConnectLastForceReset`**`()`

Get system time in milliseconds of last time forceReset was called

Returns:

system time in milliseconds of last time forceReset was called

isStreamIsRunning

`public boolean` **`isStreamIsRunning`**`()`

Return true if stream is currently running

Returns:

true if stream is currently running

getStreamIsRunningLock

`public Object` **`getStreamIsRunningLock`**`()`

Get stream running lock

Returns:

stream running lock

getReconnectWaitTime

`public int` **`getReconnectWaitTime`**`()`

Get the minimum time between reconnect attempts (milliseconds)

Returns:

minimum time between reconnect attempts (milliseconds)

setReconnectWaitTime

```
public void setReconnectWaitTime(int reconnectWaitTime)
```

Set the minimum time between reconnect attempts (milliseconds)

Parameters:
reconnectWaitTime - minimum time between reconnect attempts (milliseconds)

getMediaCasterType

```
public int getMediaCasterType()
```

Get the media caster type. See IMediaCaster.MEDIACASTERTYPE_*

Returns:
media caster type

setMediaCasterType

```
public void setMediaCasterType(int mediaCasterType)
```

Set the media caster type. See IMediaCaster.MEDIACASTERTYPE_*

Parameters:
mediaCasterType - media caster type

com.wowza.wms.mediacaster
Interface IMediaCasterDataReceiver

public interface **IMediaCasterDataReceiver**
extends

IMediaCasterDataReceiver: For internal use only.

Method Summary

void	**onData**(org.apache.mina.common.ByteBuffer data) Data callback

Methods

onData

public void **onData**(org.apache.mina.common.ByteBuffer data)

Data callback

Parameters:
    data - data

com.wowza.wms.mediacaster
Interface IMediaCasterNetConnection

public interface **IMediaCasterNetConnection**
extends

IMediaCasterNetConnection: Internal use only

Method Summary

com.wowza.wms.netconn ection.NetConnection	getNetConnection() Receives the INetConnection interface for a live repeater connection

Methods

getNetConnection

public com.wowza.wms.netconnection.NetConnection **getNetConnection**()

Receives the INetConnection interface for a live repeater connection

Returns:
INetConnection interface

com.wowza.wms.mediacaster
Interface IMediaCasterNotify

All Subinterfaces:
>   IMediaCasterNotify2

---

public interface **IMediaCasterNotify**
extends

IMediaCasterNotify: listener interface to MediaCaster system. See IApplicationInstance.addMediaCasterListener().

Method Summary

void	onMediaCasterCreate(IMediaCaster mediaCaster) Invoked when mediaCaster created
void	onMediaCasterDestroy(IMediaCaster mediaCaster) Invoked when MediaCaster destroyed
void	onRegisterPlayer(IMediaCaster mediaCaster, IMediaStreamPlay player) Invoked when a player is added to this mediaCaster
void	onSetSourceStream(IMediaCaster mediaCaster, IMediaStream stream) Invoked when soure stream is set (can be called with stream of null)
void	onUnRegisterPlayer(IMediaCaster mediaCaster, IMediaStreamPlay player) Invoked when a player is removed from this mediaCaster

---

Methods

onMediaCasterCreate

public void **onMediaCasterCreate**(IMediaCaster mediaCaster)

>   Invoked when mediaCaster created

>   **Parameters:**
>   mediaCaster

---

onMediaCasterDestroy

public void **onMediaCasterDestroy**(IMediaCaster mediaCaster)

>   Invoked when MediaCaster destroyed

>   **Parameters:**
>   mediaCaster

---

onRegisterPlayer

public void **onRegisterPlayer**(IMediaCaster mediaCaster,
        IMediaStreamPlay player)

Invoked when a player is added to this mediaCaster

Parameters:
```
mediaCaster
player
```

onUnRegisterPlayer

```
public void onUnRegisterPlayer(IMediaCaster mediaCaster,
        IMediaStreamPlay player)
```

Invoked when a player is removed from this mediaCaster

Parameters:
```
mediaCaster
player
```

onSetSourceStream

```
public void onSetSourceStream(IMediaCaster mediaCaster,
        IMediaStream stream)
```

Invoked when soure stream is set (can be called with stream of null)

Parameters:
```
mediaCaster
stream
```

com.wowza.wms.mediacaster
Interface IMediaCasterNotify2

All Superinterfaces:
>   IMediaCasterNotify

---

public interface **IMediaCasterNotify2**
extends IMediaCasterNotify

Method Summary

void	**onConnectFailure**(IMediaCaster mediaCaster) Invoked when a connection or reconnection attempt fails
void	**onConnectStart**(IMediaCaster mediaCaster) Invoked when a connection or reconnection attempt is invoked
void	**onConnectSuccess**(IMediaCaster mediaCaster) Invoked when a connection or reconnection attempt is successful
void	**onStreamStart**(IMediaCaster mediaCaster) Invoked when the stream starts receiving media data from the media source.
void	**onStreamStop**(IMediaCaster mediaCaster) Invoked when the stream stops receiving media data from the media source after the streamTimeout value has passed.

Methods inherited from interface `com.wowza.wms.mediacaster.IMediaCasterNotify`
onMediaCasterCreate, onMediaCasterDestroy, onRegisterPlayer, onSetSourceStream, onUnRegisterPlayer

---

Methods

onConnectStart

public void **onConnectStart**(IMediaCaster mediaCaster)

>   Invoked when a connection or reconnection attempt is invoked

>   **Parameters:**
>   mediaCaster

---

onConnectSuccess

public void **onConnectSuccess**(IMediaCaster mediaCaster)

>   Invoked when a connection or reconnection attempt is successful

>   **Parameters:**
>   mediaCaster

---

onConnectFailure

public void **onConnectFailure**(IMediaCaster mediaCaster)

Invoked when a connection or reconnection attempt fails

Parameters:
mediaCaster

onStreamStart

public void **onStreamStart**(IMediaCaster mediaCaster)

Invoked when the stream starts receiving media data from the media source. This event will only be thrown if the MediaCaster property streamTimeout is set to a non-zero value. NOTE: This is not implemented yet (coming soon)

Parameters:
mediaCaster

onStreamStop

public void **onStreamStop**(IMediaCaster mediaCaster)

Invoked when the stream stops receiving media data from the media source after the streamTimeout value has passed. This event will only be thrown if the MediaCaster property streamTimeout is set to a non-zero value. NOTE: This is not implemented yet (coming soon)

Parameters:
mediaCaster

com.wowza.wms.mediacaster
Interface IMediaCasterValidateMediaCaster

All Known Implementing Classes:
> ModuleMediaCasterStreamMonitorAdvanced

---

public interface **IMediaCasterValidateMediaCaster**
extends

IMediaCasterValidateMediaCaster: interface for implementing stream validators. See
IApplicationInstance.setMediaCasterValidator(IMediaCasterValidateMediaCaster mediaCasterValidator)

Method Summary

boolean	onResetMediaCaster(IApplicationInstance appInstance, IMediaCaster mediaCaster) Called when media caster is reset
boolean	onValidateMediaCaster(IApplicationInstance appInstance, IMediaCaster mediaCaster) Called for each media caster to validate the media caster.
void	onValidateMediaCastersStart(IApplicationInstance appInstance) Called when validation for all streams of an application instance is starting
void	onValidateMediaCastersStop(IApplicationInstance appInstance) Called when validation for all streams of an application instance is done

Methods

onValidateMediaCastersStart

public void **onValidateMediaCastersStart**(IApplicationInstance appInstance)

Called when validation for all streams of an application instance is starting

Parameters:
> appInstance - application instance

---

onValidateMediaCastersStop

public void **onValidateMediaCastersStop**(IApplicationInstance appInstance)

Called when validation for all streams of an application instance is done

Parameters:
> appInstance

---

onValidateMediaCaster

public boolean **onValidateMediaCaster**(IApplicationInstance appInstance,
        IMediaCaster mediaCaster)

Called for each media caster to validate the media caster. Return true if valid.

Parameters:
> `appInstance` - application instance
> `mediaCaster` - media caster

Returns:
> true, if valid

onResetMediaCaster

```
public boolean onResetMediaCaster(IApplicationInstance appInstance,
        IMediaCaster mediaCaster)
```

Called when media caster is reset

Parameters:
> `appInstance` - application instance
> `mediaCaster` - media caster

Returns:
> return true

com.wowza.wms.mediacaster
Class MediaCasterItem

```
java.lang.Object
    │
    +-com.wowza.wms.mediacaster.MediaCasterItem
```

public class **MediaCasterItem**
extends Object

Constructor Summary

public	**MediaCasterItem**(String name, String streamType, String baseClass) Media caster item constructor

Method Summary

void	**clearProperty**(String name) Clear property
String	**getBaseClass**() Get base class
int	**getConnectionTimeout**() Get connection timeout (milliseconds)
String	**getDescription**() Get description
static String	**getIdString**(String name, String liveStreamPacketizer, String liveStreamRepeater) Get id string for this media caster item (not used - returns name unchanged)
int	**getKeepAliveTime**() Get keep alive time (milliseconds)
String	**getName**() Get name
WMSProperties	**getProperties**() Get properties collection
String	**getProperty**(String name) Get property value
String	**getStreamType**() Get the stream type
String	**idStringToName**(String idString) Convert name to id string (not used - returns id string unchanged)
static MediaCasterStreamId	**parseIdString**(String idString)

void	setBaseClass(String baseClass)	
	Set base class	
void	setConnectionTimeout(int connectionTimeout)	
	Set connection timeout (milliseconds)	
void	setDescription(String description)	
	Set description	
void	setKeepAliveTime(int keepAliveTime)	
	Set keep alive time (milliseconds)	
void	setName(String name)	
	Set name	
void	setProperty(String name, String value)	
	Set a property	
void	setStreamType(String streamType)	
	Set stream type	
String	toString()	
	toString	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

MediaCasterItem

```
public MediaCasterItem(String name,
                       String streamType,
                       String baseClass)
```

Media caster item constructor

Parameters:
    `name` - media caster name
    `streamType` - stream type
    `baseClass` - base class

Methods

getStreamType

```
public String getStreamType()
```

Get the stream type

Returns:
    stream type

setStreamType

```
public void setStreamType(String streamType)
```

Set stream type

Parameters:
streamType - stream type

getName

```
public String getName()
```

Get name

Returns:
name

setName

```
public void setName(String name)
```

Set name

Parameters:
name - name

setProperty

```
public void setProperty(String name,
        String value)
```

Set a property

Parameters:
name - name
value - value

clearProperty

```
public void clearProperty(String name)
```

Clear property

Parameters:
name - name

getProperty

```
public String getProperty(String name)
```

Get property value

Parameters:
name - name

Returns:
property value

getProperties

`public` `WMSProperties` **`getProperties`**`()`

Get properties collection

Returns:
properties collection

getDescription

`public` `String` **`getDescription`**`()`

Get description

Returns:
description

setDescription

`public` `void` **`setDescription`**`(String description)`

Set description

Parameters:
`description` - description

getBaseClass

`public` `String` **`getBaseClass`**`()`

Get base class

Returns:
base class

setBaseClass

`public` `void` **`setBaseClass`**`(String baseClass)`

Set base class

Parameters:
`baseClass` - base class

getConnectionTimeout

`public` `int` **`getConnectionTimeout`**`()`

Get connection timeout (milliseconds)

Returns:
connection timeout (milliseconds)

setConnectionTimeout

`public` `void` **`setConnectionTimeout`**`(int connectionTimeout)`

Set connection timeout (milliseconds)

Parameters:
> connectionTimeout - connection timeout (milliseconds)

getKeepAliveTime

```
public int getKeepAliveTime()
```

Get keep alive time (milliseconds)

Returns:
> keep alive time (milliseconds)

setKeepAliveTime

```
public void setKeepAliveTime(int keepAliveTime)
```

Set keep alive time (milliseconds)

Parameters:
> keepAliveTime - keep alive time (milliseconds)

getIdString

```
public static String getIdString(String name,
        String liveStreamPacketizer,
        String liveStreamRepeater)
```

Get id string for this media caster item (not used - returns name unchanged)

Parameters:
> name - name

Returns:
> id string for this media caster item

parseIdString

```
public static MediaCasterStreamId parseIdString(String idString)
```

idStringToName

```
public String idStringToName(String idString)
```

Convert name to id string (not used - returns id string unchanged)

Parameters:
> idString - id string

Returns:
> name

toString

```
public String toString()
```

(continued from last page)

toString

com.wowza.wms.mediacaster
Class MediaCasterList

```
java.lang.Object
    │
    +-com.wowza.wms.mediacaster.MediaCasterList
```

public class **MediaCasterList**
extends Object

Constructor Summary

public	[MediaCasterList](#)() Constructor

Method Summary

[MediaCasterItem](#)	[getMediaCasterDef](#)(String name) Get media caster definition by name
java.util.Map	[getMediaCasterDefs](#)() Get map of media caster items
java.util.List	[getMediaCasterNames](#)() Get list of media caster names

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

MediaCasterList

public **MediaCasterList**()

Constructor

Methods

getMediaCasterDefs

public java.util.Map **getMediaCasterDefs**()

Get map of media caster items

Returns:
map of media caster items

getMediaCasterNames

```
public java.util.List getMediaCasterNames()
```

Get list of media caster names

Returns:
list of media caster names

getMediaCasterDef

```
public MediaCasterItem getMediaCasterDef(String name)
```

Get media caster definition by name

Parameters:
name - name

Returns:
media caster definition

```
public java.util.List getMediaCasterNames()
```

com.wowza.wms.mediacaster
Class MediaCasterSettings

```
java.lang.Object
    │
    +-com.wowza.wms.mediacaster.MediaCasterSettings
```

public class **MediaCasterSettings**
extends Object

Constructor Summary

public	[MediaCasterSettings](#)()

Method Summary

HostPortConfig	[getMediaCasterHostPortConfig](#)() Get media caster host port config
int	[getMediaCasterProcessorCount](#)() Get the thread count use for this host port
void	[setMediaCasterHostPortConfig](#)(HostPortConfig mediaCasterHostPortConfig) Set media caster host port config
void	[setMediaCasterProcessorCount](#)(int mediaCasterProcessorCount) Set the thread count for this processor

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

MediaCasterSettings

public **MediaCasterSettings**()

Methods

getMediaCasterHostPortConfig

public HostPortConfig **getMediaCasterHostPortConfig**()

Get media caster host port config

Returns:
   host port config

setMediaCasterHostPortConfig

public void **setMediaCasterHostPortConfig**(HostPortConfig mediaCasterHostPortConfig)

Set media caster host port config

Parameters:
mediaCasterHostPortConfig

getMediaCasterProcessorCount

public int **getMediaCasterProcessorCount**()

Get the thread count use for this host port

Returns:
thread count use for this host port

setMediaCasterProcessorCount

public void **setMediaCasterProcessorCount**(int mediaCasterProcessorCount)

Set the thread count for this processor

Parameters:
mediaCasterProcessorCount - thread count use for this host port

com.wowza.wms.mediacaster
Class MediaCasterStreamItem

```
java.lang.Object
    │
    +-com.wowza.wms.mediacaster.MediaCasterStreamItem
```

public class **MediaCasterStreamItem**
extends Object

Constructor Summary

public	**MediaCasterStreamItem**(long uniqueId) Media caster item constructor

Method Summary

void	**acquire**() Increment acquire lock count for this media caster item
void	**acquireAndRelease**() Increment then decrement acquire lock count for this media caster item
boolean	**doWatchdog**() Do idle processing
String	**getLiveStreamPacketizer**() Get the live stream packetizer for this media caster stream item
String	**getLiveStreamRepeater**() Get the live stream repeater for this media caster stream item
Object	**getLock**()
int	**getLockCount**() Get the current number of acquire locks on this media caster item
IMediaCaster	**getMediaCaster**() Get the underlying IMediaCaster interface for this MediaCaster
String	**getMediaCasterId**() Get this media caster item id
int	**getPlayerCount**() Get the current number of players associated with this media caster item
String	**getStreamExt**()
long	**getUniqueId**()

void	init(String mediaCasterId, String streamExt, MediaCasterItem mediaCasterDef, MediaCasterStreamMap parent, String liveStreamPacketizer, String liveStreamRepeater)	
	Initialize the media caster item (internal use)	
boolean	isShutdownOnRelease()	
	On last release shutdown the stream even if clients are connected	
boolean	isValid()	
void	registerPlayer(IMediaStreamPlay player)	
	Register a player with a media caster item (internal use)	
void	release()	
	Decrement acquire lock count for this media caster item	
void	reset()	
	Force a reconnect or reset for this media caster item	
void	setLiveStreamPacketizer(String liveStreamPacketizer)	
	Set the live stream packetizer for this media caster stream item	
void	setLiveStreamRepeater(String liveStreamRepeater)	
	Set the live stream repeater for this media caster stream item	
void	setShutdownOnRelease(boolean shutdownOnRelease)	
	On last release shutdown the stream even if clients are connected	
void	setStreamExt(String streamExt)	
void	setValid(boolean isValid)	
void	shutdown(boolean isAppInstanceShutdown)	
	Shutdown this media caster item	
void	unregisterPlayer(IMediaStreamPlay player)	
	Unregister a player with a media caster item (internal use)	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

MediaCasterStreamItem

public **MediaCasterStreamItem**(long uniqueId)

Media caster item constructor

Methods

getLock

```
public Object getLock()
```

getUniqueId

```
public long getUniqueId()
```

isValid

```
public boolean isValid()
```

setValid

```
public void setValid(boolean isValid)
```

init

```
public void init(String mediaCasterId,
        String streamExt,
        MediaCasterItem mediaCasterDef,
        MediaCasterStreamMap parent,
        String liveStreamPacketizer,
        String liveStreamRepeater)
```

Initialize the media caster item (internal use)

Parameters:
mediaCasterId - media caster id
streamExt - stream extension or prefix
mediaCasterDef - media caster definition
parent - parent map

getMediaCasterId

```
public String getMediaCasterId()
```

Get this media caster item id

Returns:
media caster item id

getMediaCaster

```
public IMediaCaster getMediaCaster()
```

Get the underlying IMediaCaster interface for this MediaCaster

Returns:
underlying IMediaCaster interface

registerPlayer

public void **registerPlayer**([IMediaStreamPlay](#) player)

Register a player with a media caster item (internal use)

Parameters:
player - player to register

unregisterPlayer

public void **unregisterPlayer**([IMediaStreamPlay](#) player)

Unregister a player with a media caster item (internal use)

Parameters:
player - player to unregister

doWatchdog

public boolean **doWatchdog**()

Do idle processing

Returns:
return true if caused shutdown of item

reset

public void **reset**()

Force a reconnect or reset for this media caster item

shutdown

public void **shutdown**(boolean isAppInstanceShutdown)

Shutdown this media caster item

Parameters:
isAppInstanceShutdown - is this due to application shutdown

getPlayerCount

public int **getPlayerCount**()

Get the current number of players associated with this media caster item

Returns:
current number of players associated with this media caster item

getLockCount

public int **getLockCount**()

Get the current number of acquire locks on this media caster item

Returns:
  current number of acquire locks on this media caster item

---

acquireAndRelease

```
public void acquireAndRelease()
```

  Increment then decrement acquire lock count for this media caster item

---

acquire

```
public void acquire()
```

  Increment acquire lock count for this media caster item

---

release

```
public void release()
```

  Decrement acquire lock count for this media caster item

---

getStreamExt

```
public String getStreamExt()
```

---

setStreamExt

```
public void setStreamExt(String streamExt)
```

---

isShutdownOnRelease

```
public boolean isShutdownOnRelease()
```

  On last release shutdown the stream even if clients are connected

  Returns:
    true if shutting down on release

---

setShutdownOnRelease

```
public void setShutdownOnRelease(boolean shutdownOnRelease)
```

  On last release shutdown the stream even if clients are connected

  Parameters:
    shutdownOnRelease - true if shutting down on release

---

getLiveStreamPacketizer

```
public String getLiveStreamPacketizer()
```

  Get the live stream packetizer for this media caster stream item

  Returns:

live stream packetizer

---

setLiveStreamPacketizer

```
public void setLiveStreamPacketizer(String liveStreamPacketizer)
```

Set the live stream packetizer for this media caster stream item

Parameters:
liveStreamPacketizer - live stream packetizer

---

getLiveStreamRepeater

```
public String getLiveStreamRepeater()
```

Get the live stream repeater for this media caster stream item

Returns:
live stream repeater

---

setLiveStreamRepeater

```
public void setLiveStreamRepeater(String liveStreamRepeater)
```

Set the live stream repeater for this media caster stream item

Parameters:
liveStreamRepeater - live stream repeater

---

com.wowza.wms.mediacaster
Class MediaCasterStreamManager

```
java.lang.Object
    |
    +-com.wowza.wms.mediacaster.MediaCasterStreamManager
```

public class **MediaCasterStreamManager**
extends Object

Constructor Summary

public	**MediaCasterStreamManager**(MediaCasterStreamMap mediaCasterStreamMap)

Method Summary

String[]	**getStreamArray**() Get a list of active streams
java.util.List	**getStreamList**() Get a list of active streams
boolean	**startStream**(String streamName, String mediaCasterType) Start a stream by name
boolean	**stopStream**(String streamName) Stop a stream by name
boolean	**streamExists**(String streamName) Returns true if stream exists

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

MediaCasterStreamManager

public **MediaCasterStreamManager**(MediaCasterStreamMap mediaCasterStreamMap)

Methods

getStreamArray

public String[] **getStreamArray**()

>   Get a list of active streams

Returns:
> list of active streams

---

getStreamList

```
public java.util.List getStreamList()
```

> Get a list of active streams

Returns:
> list of active streams

---

streamExists

```
public boolean streamExists(String streamName)
```

> Returns true if stream exists

Parameters:
> streamName - stream name

Returns:
> true if stream exists

---

stopStream

```
public boolean stopStream(String streamName)
```

> Stop a stream by name

Parameters:
> streamName - stream name

Returns:
> true is successful

---

startStream

```
public boolean startStream(String streamName,
        String mediaCasterType)
```

> Start a stream by name

Parameters:
> streamName - stream name
> mediaCasterType - MediaCaster type as defined in the name field of conf/MediaCasters.xml

Returns:
> true is successful

com.wowza.wms.mediacaster
Class MediaCasterStreamMap

```
java.lang.Object
    │
    +-com.wowza.wms.mediacaster.MediaCasterStreamMap
```

public class **MediaCasterStreamMap**
extends Object

Constructor Summary

public	**MediaCasterStreamMap**(IApplicationInstance appInstance) Create a new mediacaster map

Method Summary

MediaCasterStreamItem	**acquire**(String streamName) Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away).
MediaCasterStreamItem	**acquire**(String inStreamName, MediaCasterItem mediaCasterDef) Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away).
MediaCasterStreamItem	**acquire**(String inStreamName, String streamType) Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away).
MediaCasterStreamItem	**acquire**(String streamName, String liveStreamPacketizer, String liveStreamRepeater) Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away).
MediaCasterStreamItem	**acquire**(String inStreamName, String liveStreamPacketizer, String liveStreamRepeater, MediaCasterItem mediaCasterDef) Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away).
MediaCasterStreamItem	**acquire**(String inStreamName, String liveStreamPacketizer, String liveStreamRepeater, String streamType) Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away).
MediaCasterStreamItem	**acquireAndRelease**(String inStreamName, String liveStreamPacketizer, String liveStreamRepeater, MediaCasterItem mediaCasterDef) Increment and then decrement the lock count for a media caster item (so that it is loaded and will stay loaded for at least the KeepAliveTime).
void	**addStreamSrcToMediaCaster**(long streamSrc, String mediaCasterId)
void	**clearStreamSrcToMediaCaster**(long streamSrc)
void	**doWatchdog**() Do periodic idle time processing

IApplicationInstance	**getApplicationInstance**() Get the parent application instance for this map
edu.emory.mathcs.back port.java.util.concur rent.locks.WMSReadWri teLock	**getLock**() Get the read/write lock for this interface
MediaCasterStreamItem	**getMediaCaster**(String streamName) Get media caster item based on given stream name
MediaCasterStreamItem	**getMediaCaster**(String streamName, String liveStreamPacketizer, String liveStreamRepeater) Get media caster item based on given stream name
int	**getMediaCasterCount**() Get the number of mediacasters current running
java.util.List	**getMediaCasterNames**() Get a list of all the currently running media caster names
MediaCasterStreamMana ger	**getStreamManager**() Get the stream manager interface for managing the starting and stopping of streams
void	**registerPlayer**(IMediaStreamPlay player, MediaCasterItem mediaCasterDef) Register a player to a media caster item (internal use)
void	**release**(MediaCasterStreamItem mediaCasterStreamItem) Decrement lock count on media caster item
void	**release**(MediaCasterStreamItem mediaCasterStreamItem, boolean removeIfZero)
void	**remove**(MediaCasterStreamItem mediaCasterStreamItem)
void	**shutdown**(boolean isAppInstanceShutdown) Shutdown this media caster and close all running media casters
String	**streamSrcToMediaCaster**(long streamSrc)
void	**unregisterPlayer**(IMediaStreamPlay player, MediaCasterItem mediaCasterDef) Unregister a player to a media caster item (internal use)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

MediaCasterStreamMap

public **MediaCasterStreamMap**(IApplicationInstance appInstance)

Create a new mediacaster map

(continued from last page)

Parameters:
> `appInstance` - application instance

Methods

getLock

`public edu.emory.mathcs.backport.java.util.concurrent.locks.WMSReadWriteLock` **`getLock`**`()`

> Get the read/write lock for this interface

> **Returns:**
>> read/write lock

getStreamManager

`public` [`MediaCasterStreamManager`](#) **`getStreamManager`**`()`

> Get the stream manager interface for managing the starting and stopping of streams

> **Returns:**
>> stream manager interface

getApplicationInstance

`public` [`IApplicationInstance`](#) **`getApplicationInstance`**`()`

> Get the parent application instance for this map

> **Returns:**
>> parent application instance for this map

getMediaCasterCount

`public int` **`getMediaCasterCount`**`()`

> Get the number of mediacasters current running

> **Returns:**
>> number of mediacasters current running

doWatchdog

`public void` **`doWatchdog`**`()`

> Do periodic idle time processing

shutdown

`public void` **`shutdown`**`(boolean isAppInstanceShutdown)`

> Shutdown this media caster and close all running media casters

> **Parameters:**
>> `isAppInstanceShutdown` - is this due to application shutdown

getMediaCasterNames

public java.util.List **getMediaCasterNames**()

> Get a list of all the currently running media caster names

> **Returns:**
>> list of all the currently running media caster names

getMediaCaster

public MediaCasterStreamItem **getMediaCaster**(String streamName)

> Get media caster item based on given stream name

> **Parameters:**
>> streamName - stream name

> **Returns:**
>> media caster item

getMediaCaster

public MediaCasterStreamItem **getMediaCaster**(String streamName,
        String liveStreamPacketizer,
        String liveStreamRepeater)

> Get media caster item based on given stream name

> **Parameters:**
>> streamName - stream name
>> liveStreamPacketizer - live stream packetizer name
>> liveStreamRepeater - live stream repeater name

> **Returns:**
>> media caster item

acquire

public MediaCasterStreamItem **acquire**(String streamName,
        String liveStreamPacketizer,
        String liveStreamRepeater)

> Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away). Will load the media caster if not already loaded. Uses default application instance stream type.

> **Parameters:**
>> streamName - stream name
>> liveStreamPacketizer - live stream packetizer name
>> liveStreamRepeater - live stream repeater name

> **Returns:**
>> media caster item

acquire

public MediaCasterStreamItem **acquire**(String streamName)

> Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away). Will load the media caster if not already loaded. Uses default application instance stream type.

Parameters:

    `streamName` - stream name

Returns:

    media caster item

---

acquire

```
public MediaCasterStreamItem acquire(String inStreamName,
        MediaCasterItem mediaCasterDef)
```

Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away). Will load the media caster if not already loaded. This API allow loading of a MediaCaster into a non-MediaCaster stream type such as the "live" or "liverepeater-origin" stream type.

Parameters:

    `inStreamName` - stream name

    `mediaCasterDef` - MediaCaster definition

Returns:

    media caster item

---

acquire

```
public MediaCasterStreamItem acquire(String inStreamName,
        String liveStreamPacketizer,
        String liveStreamRepeater,
        MediaCasterItem mediaCasterDef)
```

Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away). Will load the media caster if not already loaded. This API allow loading of a MediaCaster into a non-MediaCaster stream type such as the "live" or "liverepeater-origin" stream type.

Parameters:

    `inStreamName` - stream name

    `liveStreamPacketizer` - live stream packetizer name

    `liveStreamRepeater` - live stream repeater name

    `mediaCasterDef` - MediaCaster definition

Returns:

    media caster item

---

acquireAndRelease

```
public MediaCasterStreamItem acquireAndRelease(String inStreamName,
        String liveStreamPacketizer,
        String liveStreamRepeater,
        MediaCasterItem mediaCasterDef)
```

Increment and then decrement the lock count for a media caster item (so that it is loaded and will stay loaded for at least the KeepAliveTime). Will load the media caster if not already loaded. This API allow loading of a MediaCaster into a non-MediaCaster stream type such as the "live" or "liverepeater-origin" stream type.

Parameters:

    `inStreamName` - stream name

    `liveStreamPacketizer` - live stream packetizer name

    `liveStreamRepeater` - live stream repeater name

    `mediaCasterDef` - MediaCaster definition

Returns:

media caster item

acquire

```
public MediaCasterStreamItem acquire(String inStreamName,
        String streamType)
```

Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away). Will load the media caster if not already loaded.

Parameters:

inStreamName - stream name

streamType - stream type to use (null will use default application streamType)

Returns:

media caster item

acquire

```
public MediaCasterStreamItem acquire(String inStreamName,
        String liveStreamPacketizer,
        String liveStreamRepeater,
        String streamType)
```

Increment the lock count for a media caster item (so that it remains loaded even if all listeners go away). Will load the media caster if not already loaded.

Parameters:

inStreamName - stream name

liveStreamPacketizer - live stream packetizer name

liveStreamRepeater - live stream repeater name

streamType - stream type to use (null will use default application streamType)

Returns:

media caster item

release

```
public void release(MediaCasterStreamItem mediaCasterStreamItem)
```

Decrement lock count on media caster item

Parameters:

mediaCasterStreamItem - media caster item to decrement

release

```
public void release(MediaCasterStreamItem mediaCasterStreamItem,
        boolean removeIfZero)
```

remove

```
public void remove(MediaCasterStreamItem mediaCasterStreamItem)
```

streamSrcToMediaCaster

```
public String streamSrcToMediaCaster(long streamSrc)
```

addStreamSrcToMediaCaster

```
public void addStreamSrcToMediaCaster(long streamSrc,
        String mediaCasterId)
```

clearStreamSrcToMediaCaster

```
public void clearStreamSrcToMediaCaster(long streamSrc)
```

registerPlayer

```
public void registerPlayer(IMediaStreamPlay player,
        MediaCasterItem mediaCasterDef)
```

Register a player to a media caster item (internal use)

Parameters:
player - player to register
mediaCasterDef - media caster definition

unregisterPlayer

```
public void unregisterPlayer(IMediaStreamPlay player,
        MediaCasterItem mediaCasterDef)
```

Unregister a player to a media caster item (internal use)

Parameters:
player - player to unregister
mediaCasterDef - media caster definition

com.wowza.wms.mediacaster
Class ModuleMediaCaster

```
java.lang.Object
    |
    +-com.wowza.wms.module.ModuleBase
        |
        +-com.wowza.wms.mediacaster.ModuleMediaCaster
```
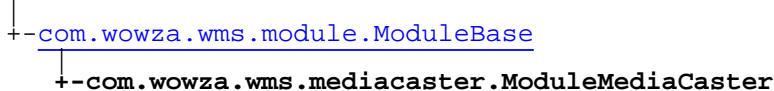
All Implemented Interfaces:
> IModuleOnApp

---

public class **ModuleMediaCaster**
extends ModuleBase
implements IModuleOnApp

ModuleMediaCaster: Module for manipulating media casters through a Flash UI.

Fields inherited from class com.wowza.wms.module.ModuleBase
CALLBACK_PARAM1, CALLBACK_PARAM10, CALLBACK_PARAM2, CALLBACK_PARAM3, CALLBACK_PARAM4, CALLBACK_PARAM5, CALLBACK_PARAM6, CALLBACK_PARAM7, CALLBACK_PARAM8, CALLBACK_PARAM9, PARAM1, PARAM10, PARAM2, PARAM3, PARAM4, PARAM5, PARAM6, PARAM7, PARAM8, PARAM9, PARAMMETHODNAME, PLAYTRANSITION_APPEND, PLAYTRANSITION_APPEND_IMMEDIATE, PLAYTRANSITION_RESET, PLAYTRANSITION_RESET_IMMEDIATE, PLAYTRANSITION_STOP, PLAYTRANSITION_SWAP, PLAYTRANSITION_SWITCH, PLAYTRANSITION_UNKNOWN, PLAYTRANSITIONSTR_APPEND, PLAYTRANSITIONSTR_RESET, PLAYTRANSITIONSTR_STOP, PLAYTRANSITIONSTR_SWAP, PLAYTRANSITIONSTR_SWITCH, PLAYTRANSITIONSTR_UNKNOWN

Constructor Summary

public	ModuleMediaCaster()

Method Summary

void	acquireMediaCaster(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
	Increment the lock count of a media caster stream.
void	getLockCount(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
	Get the current lock count for a stream
void	getPlayerCount(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
	Get the numbers of players associated with a particular media caster
void	getStreamNames(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
	Get an array of stream names that are media casters associate with this application instance (returned as AMFDataArray)
void	onAppStart(IApplicationInstance appInstance)
	onAppStart

	void	onAppStop(IApplicationInstance appInstance)
		onAppStop
	void	releaseMediaCaster(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
		Decrement the lock count of a media caster stream
	void	resetStream(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
		Reset a media caster stream
	void	shutdownStream(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
		Force shutdown a media caster stream

Methods inherited from class com.wowza.wms.module.ModuleBase

getAppInstance, getApplication, getCallbackParamCount, getLogger, getParam, getParamBoolean, getParamBoolean, getParamCount, getParamDate, getParamDouble, getParamDouble, getParamInt, getParamInt, getParamLong, getParamLong, getParamMixedArray, getParamObj, getParamString, getParamString, getParamType, getStream, getVHost, invokePrevious, invokePrevious, isSendResult, sendClientOnStatusError, sendResult, sendResult, sendResult, sendResult, sendResult, sendStreamOnStatusError

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.module.IModuleOnApp

onAppStart, onAppStop

Constructors

ModuleMediaCaster

public **ModuleMediaCaster**()

Methods

onAppStart

public void **onAppStart**(IApplicationInstance appInstance)

onAppStart

onAppStop

public void **onAppStop**(IApplicationInstance appInstance)

onAppStop

getLockCount

```
public void getLockCount(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

Get the current lock count for a stream

Parameters:

```
client - client
function - function
params - {streamName}
```

getPlayerCount

```
public void getPlayerCount(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

Get the numbers of players associated with a particular media caster

Parameters:

```
client - client
function - function
params - {streamName}
```

getStreamNames

```
public void getStreamNames(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

Get an array of stream names that are media casters associate with this application instance (returned as AMFDataArray)

Parameters:

```
client - client
function - function
params - (no params)
```

resetStream

```
public void resetStream(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

Reset a media caster stream

Parameters:

```
client - client
function - function
params - {streamName}
```

shutdownStream

```
public void shutdownStream(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

Force shutdown a media caster stream

Parameters:

```
client - client
function - function
params - {streamName}
```

acquireMediaCaster

```
public void acquireMediaCaster(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Increment the lock count of a media caster stream. If the media caster does not exists create it and connect.

Parameters:

```
client - client
function - function
params - {streamName, streamType [optional]}
```

releaseMediaCaster

```
public void releaseMediaCaster(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Decrement the lock count of a media caster stream

Parameters:

```
client - client
function - function
params - {streamName}
```

Package

com.wowza.wms.mediacaster.rtp

com.wowza.wms.mediacaster.rtp
Interface IRTPSessionDescriptionDataProvider

public interface **IRTPSessionDescriptionDataProvider**
extends

IRTPSessionDescriptionDataProvider: Internal use.

Method Summary

boolean	doIdle(MediaCaster mediaCaster)
RTPSessionDescription Data	getSessionDescriptionData(IApplicationInstance appInstance, String streamName, int retryCount, IRTPSessionDescriptionSessionHandler handler, IMediaCaster mediaCaster)
void	init(MediaCaster mediaCaster)
void	sessionStart(RTPSession rtpSession)
void	sessionStop(RTPSession rtpSession)

Methods

init

public void **init**(MediaCaster mediaCaster)

getSessionDescriptionData

public RTPSessionDescriptionData **getSessionDescriptionData**(IApplicationInstance appInstance,
        String streamName,
        int retryCount,
        IRTPSessionDescriptionSessionHandler handler,
        IMediaCaster mediaCaster)

sessionStart

public void **sessionStart**(RTPSession rtpSession)

sessionStop

public void **sessionStop**(RTPSession rtpSession)

(continued from last page)

doIdle

```
public boolean doIdle(MediaCaster mediaCaster)
```

com.wowza.wms.mediacaster.rtp
Interface IRTPSessionDescriptionSessionHandler

public interface **IRTPSessionDescriptionSessionHandler**
extends

IRTPSessionDescriptionSessionHandler: Internal use.

Method Summary

void	[onDisconnect](){}()

Methods

onDisconnect

public void **onDisconnect**()

Package

com.wowza.wms.mediacaster.shoutcast

com.wowza.wms.mediacaster.shoutcast
Interface IShoutCastFrameReceiver

public interface **IShoutCastFrameReceiver**
extends

IShoutCastFrameReceiver: Internal use.

Method Summary

void	**onCodecConfigAAC**(com.wowza.wms.media.aac.AACFrame frame, byte[] buffer, long offset)
void	**onFrameAAC**(com.wowza.wms.media.aac.AACFrame frame, byte[] buffer, long offset)
void	**onFrameMP3**(int frequency, int samplesPerFrame, int channels, byte[] syncHeader, byte[] packetHeader, byte[] frameData)
void	**onHeaderData**(java.util.Map headerMap)
void	**onMetaData**(java.util.Map metaMap)
void	**onTrim**()

Methods

onFrameMP3

```
public void onFrameMP3(int frequency,
        int samplesPerFrame,
        int channels,
        byte[] syncHeader,
        byte[] packetHeader,
        byte[] frameData)
```

onCodecConfigAAC

```
public void onCodecConfigAAC(com.wowza.wms.media.aac.AACFrame frame,
        byte[] buffer,
        long offset)
```

onFrameAAC

```
public void onFrameAAC(com.wowza.wms.media.aac.AACFrame frame,
        byte[] buffer,
        long offset)
```

onTrim

```
public void onTrim()
```

onHeaderData

```
public void onHeaderData(java.util.Map headerMap)
```

onMetaData

```
public void onMetaData(java.util.Map metaMap)
```

com.wowza.wms.mediacaster.shoutcast
Interface IShoutCastMetaDataListener

public interface **IShoutCastMetaDataListener**
extends

IShoutCastMetaDataListener: Internal use.

Method Summary

void	addMetaDataListener(IShoutCastMetaDataNotify listener)
boolean	removeMetaDataListener(IShoutCastMetaDataNotify listener)

Methods

addMetaDataListener

public void **addMetaDataListener**(IShoutCastMetaDataNotify listener)

removeMetaDataListener

public boolean **removeMetaDataListener**(IShoutCastMetaDataNotify listener)

com.wowza.wms.mediacaster.shoutcast
Interface IShoutCastMetaDataNotify

public interface **IShoutCastMetaDataNotify**
extends

IShoutCastMetaDataNotify: Internal use.

Method Summary

void	onAACEncodeInfo(IMediaCaster mediaCaster, int frequency, int channels, int samplesPerFrame)
void	onHeaderData(IMediaCaster mediaCaster, java.util.Map headerMap)
void	onMetaData(IMediaCaster mediaCaster, java.util.Map metaMap)
void	onMP3EncodeInfo(IMediaCaster mediaCaster, int frequency, int channels, int samplesPerFrame)

Methods

onHeaderData

```
public void onHeaderData(IMediaCaster mediaCaster,
        java.util.Map headerMap)
```

onMetaData

```
public void onMetaData(IMediaCaster mediaCaster,
        java.util.Map metaMap)
```

onAACEncodeInfo

```
public void onAACEncodeInfo(IMediaCaster mediaCaster,
        int frequency,
        int channels,
        int samplesPerFrame)
```

onMP3EncodeInfo

```
public void onMP3EncodeInfo(IMediaCaster mediaCaster,
        int frequency,
        int channels,
        int samplesPerFrame)
```

Package

com.wowza.wms.medialist

com.wowza.wms.medialist
Class MediaList

```
java.lang.Object
    |
    +-com.wowza.wms.medialist.MediaList
```

public class **MediaList**
extends Object

Field Summary

protected	[lock](#)
protected	[name](#)
protected	[properties](#)
protected	[segments](#)

Constructor Summary

public	[MediaList](#)()

Method Summary

void	[addSegment](#)(int index, [MediaListSegment](#) mediaListSegment)
void	[addSegment](#)([MediaListSegment](#) mediaListSegment)
void	[clearSegments](#)()
[MediaListSegment](#)	[getFirstSegment](#)()
Object	[getLock](#)()
String	[getName](#)()
[WMSProperties](#)	[getProperties](#)()
[WMSProperties](#)	[getProperties](#)(boolean write)
java.util.List	[getSegment](#)()
[MediaListSegment](#)	[getSegment](#)(int index)

MediaListSegment	removeSegment(int index)
void	removeSegment(MediaListSegment mediaListSegment)
void	reset()
void	setName(String name)
String	toSMILString()
String	toString()

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

name

protected java.lang.String **name**

segments

protected java.util.List **segments**

properties

protected com.wowza.wms.application.WMSProperties **properties**

lock

protected java.lang.Object **lock**

Constructors

MediaList

public **MediaList**()

Methods

toString

```
public String toString()
```

toSMILString

```
public String toSMILString()
```

reset

```
public void reset()
```

getSegment

```
public java.util.List getSegment()
```

addSegment

```
public void addSegment(MediaListSegment mediaListSegment)
```

addSegment

```
public void addSegment(int index,
        MediaListSegment mediaListSegment)
```

removeSegment

```
public void removeSegment(MediaListSegment mediaListSegment)
```

removeSegment

```
public MediaListSegment removeSegment(int index)
```

clearSegments

```
public void clearSegments()
```

getFirstSegment

```
public MediaListSegment getFirstSegment()
```

getSegment

```
public MediaListSegment getSegment(int index)
```

getLock

```
public Object getLock()
```

getProperties

```
public WMSProperties getProperties()
```

getProperties

```
public WMSProperties getProperties(boolean write)
```

getName

```
public String getName()
```

setName

```
public void setName(String name)
```

com.wowza.wms.medialist
Class MediaListRendition

```
java.lang.Object
   │
   +-com.wowza.wms.medialist.MediaListRendition
```

public class **MediaListRendition**
extends Object

Field Summary

protected	audioCodecId
protected	bitrateAudio
protected	bitrateTotal
protected	bitrateVideo
protected	height
protected	lock
protected	mediaListSegment
protected	name
protected	playDuration
protected	playStart
protected	properties
protected	type
protected	videoCodecId
protected	width
protected	wowzaAudioOnly

Constructor Summary

public	MediaListRendition()

Method Summary

String	getAudioCodecId()
int	getBitrateAudio()
int	getBitrateTotal()
int	getBitrateVideo()
String	getCodecId()
int	getHeight()
Object	getLock()
MediaListSegment	getMediaListSegment()
String	getName()
long	getPlayDuration()
long	getPlayStart()
WMSProperties	getProperties()
WMSProperties	getProperties(boolean write)
int[]	getSize()
int	getType()
String	getTypeAsString()
String	getVideoCodecId()
int	getWidth()
boolean	isWowzaAudioOnly()
void	setAudioCodecId(String audioCodecId)
void	setBitrateAudio(int bitrateAudio)
void	setBitrateTotal(int bitrateTotal)
void	setBitrateVideo(int bitrateVideo)

void		[setHeight](int height)
void		[setLock](Object lock)
void		[setMediaListSegment]([MediaListSegment] mediaListSegment)
void		[setName](String name)
void		[setPlayDuration](long playDuration)
void		[setPlayStart](long playStart)
void		[setSize](int width, int height)
void		[setType](int type)
void		[setVideoCodecId](String videoCodecId)
void		[setWidth](int width)
void		[setWowzaAudioOnly](boolean wowzaAudioOnly)
String		[toSMILString]()
String		[toString]()

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

lock

protected java.lang.Object **lock**

mediaListSegment

protected com.wowza.wms.medialist.MediaListSegment **mediaListSegment**

properties

protected com.wowza.wms.application.WMSProperties **properties**

name

```
protected java.lang.String name
```

type

```
protected int type
```

bitrateTotal

```
protected int bitrateTotal
```

bitrateAudio

```
protected int bitrateAudio
```

bitrateVideo

```
protected int bitrateVideo
```

videoCodecId

```
protected java.lang.String videoCodecId
```

audioCodecId

```
protected java.lang.String audioCodecId
```

wowzaAudioOnly

```
protected boolean wowzaAudioOnly
```

width

```
protected int width
```

height

```
protected int height
```

playStart

`protected long ` **`playStart`**

playDuration

`protected long ` **`playDuration`**

Constructors

MediaListRendition

`public ` **`MediaListRendition`**`()`

Methods

toString

`public String ` **`toString`**`()`

toSMILString

`public String ` **`toSMILString`**`()`

getTypeAsString

`public String ` **`getTypeAsString`**`()`

getLock

`public Object ` **`getLock`**`()`

setLock

`public void ` **`setLock`**`(Object lock)`

getMediaListSegment

`public ` [`MediaListSegment`](#) **`getMediaListSegment`**`()`

setMediaListSegment

```
public void setMediaListSegment(MediaListSegment mediaListSegment)
```

getProperties

```
public WMSProperties getProperties()
```

getProperties

```
public WMSProperties getProperties(boolean write)
```

getBitrateTotal

```
public int getBitrateTotal()
```

setBitrateTotal

```
public void setBitrateTotal(int bitrateTotal)
```

getBitrateAudio

```
public int getBitrateAudio()
```

setBitrateAudio

```
public void setBitrateAudio(int bitrateAudio)
```

getBitrateVideo

```
public int getBitrateVideo()
```

setBitrateVideo

```
public void setBitrateVideo(int bitrateVideo)
```

getVideoCodecId

`public String getVideoCodecId()`

setVideoCodecId

`public void setVideoCodecId(String videoCodecId)`

getCodecId

`public String getCodecId()`

getAudioCodecId

`public String getAudioCodecId()`

setAudioCodecId

`public void setAudioCodecId(String audioCodecId)`

isWowzaAudioOnly

`public boolean isWowzaAudioOnly()`

setWowzaAudioOnly

`public void setWowzaAudioOnly(boolean wowzaAudioOnly)`

getName

`public String getName()`

setName

`public void setName(String name)`

getType

`public int getType()`

setType

```
public void setType(int type)
```

getWidth

```
public int getWidth()
```

setWidth

```
public void setWidth(int width)
```

getHeight

```
public int getHeight()
```

setHeight

```
public void setHeight(int height)
```

setSize

```
public void setSize(int width,
        int height)
```

getSize

```
public int[] getSize()
```

getPlayStart

```
public long getPlayStart()
```

setPlayStart

```
public void setPlayStart(long playStart)
```

getPlayDuration

`public long` **`getPlayDuration`**`()`

setPlayDuration

`public void` **`setPlayDuration`**`(long playDuration)`

getPlayDuration

`public long` **`getPlayDuration`**`()`

com.wowza.wms.medialist
Class MediaListSegment

```
java.lang.Object
    │
    +-com.wowza.wms.medialist.MediaListSegment
```

public class **MediaListSegment**
extends Object

Field Summary

protected	lock
protected	mediaList
protected	properties
protected	renditions

Constructor Summary

public	MediaListSegment()

Method Summary

void	addRendition(int index, MediaListRendition mediaListRendition)
void	addRendition(MediaListRendition mediaListRendition)
void	clearSegments()
MediaListRendition	getFirstRendition()
Object	getLock()
MediaList	getMediaList()
WMSProperties	getProperties()
WMSProperties	getProperties(boolean write)
MediaListRendition	getRendition(int index)
java.util.List	getRenditions()

[MediaListRendition](#)	[removeRendition](#)(int index)
void	[removeRendition](#)([MediaListRendition](#) mediaListRendition)
void	[setLock](#)(Object lock)
void	[setMediaList](#)([MediaList](#) mediaList)
String	[toSMILString](#)()
String	[toString](#)()

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

lock

protected java.lang.Object **lock**

mediaList

protected com.wowza.wms.medialist.MediaList **mediaList**

renditions

protected java.util.List **renditions**

properties

protected com.wowza.wms.application.WMSProperties **properties**

Constructors

MediaListSegment

public **MediaListSegment**()

Methods

toString

```
public String toString()
```

toSMILString

```
public String toSMILString()
```

getRenditions

```
public java.util.List getRenditions()
```

addRendition

```
public void addRendition(MediaListRendition mediaListRendition)
```

addRendition

```
public void addRendition(int index,
        MediaListRendition mediaListRendition)
```

removeRendition

```
public void removeRendition(MediaListRendition mediaListRendition)
```

removeRendition

```
public MediaListRendition removeRendition(int index)
```

clearSegments

```
public void clearSegments()
```

getFirstRendition

```
public MediaListRendition getFirstRendition()
```

getRendition

public MediaListRendition **getRendition**(int index)

---

getLock

public Object **getLock**()

---

setLock

public void **setLock**(Object lock)

---

getMediaList

public MediaList **getMediaList**()

---

setMediaList

public void **setMediaList**(MediaList mediaList)

---

getProperties

public WMSProperties **getProperties**()

---

getProperties

public WMSProperties **getProperties**(boolean write)

Package
com.wowza.wms.module

com.wowza.wms.module
Interface IModuleCallResult

public interface **IModuleCallResult**
extends

IModuleCallResult: callback interface used by IClient call.

Method Summary

void	**onResult**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
	Triggered on client side result from call to IClient.call

Methods

onResult

```
public void onResult(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Triggered on client side result from call to IClient.call

Parameters:
    client - client
    function - function object
    params - result parameters

com.wowza.wms.module
Interface IModuleNotify

public interface **IModuleNotify**
extends

IModuleNotify: listener interface for listening to module loading and unloading. See
IApplicationInstance.addModuleListener(IModuleNotify moduleListener)

Method Summary

void	[onModuleLoad](ModuleItem item) Called when module loaded
void	[onModuleUnload](ModuleItem item) Called when module unloaded

Methods

onModuleLoad

public void **onModuleLoad**(ModuleItem item)

Called when module loaded

Parameters:
item - module

onModuleUnload

public void **onModuleUnload**(ModuleItem item)

Called when module unloaded

Parameters:
item - module

com.wowza.wms.module
Interface IModuleOnApp

All Known Implementing Classes:
> ModuleMediaCaster

public interface **IModuleOnApp**
extends

IModuleCallResult: method interface examples for application level methods in a module.

Since module method must be implemented as static method a module cannot directly implements this interface. This interface only serves as an example of the method names and call signature needed to implement these application methods.

Method Summary

void	onAppStart(IApplicationInstance appInstance) Invoked when an application instance is started.	
void	onAppStop(IApplicationInstance appInstance) Invoked when an application instance is stopped (destroyed).	

Methods

onAppStart

public void **onAppStart**(IApplicationInstance appInstance)

Invoked when an application instance is started.

Parameters:
> `appInstance` - application instance

onAppStop

public void **onAppStop**(IApplicationInstance appInstance)

Invoked when an application instance is stopped (destroyed).

Parameters:
> `appInstance` - application instance

com.wowza.wms.module
Interface IModuleOnCall

public interface **IModuleOnCall**
extends

IModuleOnCall: method interface example for the catch-all method handler onCall.

Since module method must be implemented as static method a module cannot directly implements this interface. This interface only serves as an example of the method name and call signature needed to implement this method. The onCall method, when defined in a module, is invoked for all handlers that are undefined in a given module. The onCall handler can also be used to catch calls to server side component calls.

Method Summary

void	onCall(String handlerName, IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
	Catch-all method handler.

Methods

onCall

```
public void onCall(String handlerName,
        IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Catch-all method handler. The onCall method, when defined in a module, is invoked for all handlers that are undefined in a given module.

Parameters:
handlerName - handler name
client - client
function - function object
params - function parameters

com.wowza.wms.module
Interface IModuleOnConnect

public interface **IModuleOnConnect**
extends

IModuleOnConnect: method interface examples for client level methods in a module.

Since module method must be implemented as static method a module cannot directly implements this interface. This interface only serves as an example of the method names and call signature needed to implement these client methods.

Method Summary

void	`onConnect(`IClient` client, com.wowza.wms.request.RequestFunction function, `AMFDataList` params)` Invoked when a client connection is initiated.
void	`onConnectAccept(`IClient` client)` Invoked when a client connection is accepted.
void	`onConnectReject(`IClient` client)` Invoked when a client connection is rejected.
void	`onDisconnect(`IClient` client)` Invoked when a client disconnects.

Methods

onConnect

```
public void onConnect(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Invoked when a client connection is initiated. It is within this method that module can call to client.acceptConnection or client.rejectConnection.

Parameters:
        `client` - client
        `function` - function object
        `params` - function parameters

onDisconnect

```
public void onDisconnect(IClient client)
```

Invoked when a client disconnects.

Parameters:
        `client` - client

onConnectAccept

public void **onConnectAccept**([IClient](#) client)

Invoked when a client connection is accepted.

Parameters:
client - client

---

onConnectReject

public void **onConnectReject**([IClient](#) client)

Invoked when a client connection is rejected.

Parameters:
client - client

onConnectAccept

public void **onConnectAccept**([IClient](#) client)

com.wowza.wms.module
Interface IModuleOnHTTPCupertinoEncryption

public interface **IModuleOnHTTPCupertinoEncryption**
extends

IModuleOnHTTPCupertinoEncryption: listener interface for listening to AES-128 encryption events.

Field Summary

public static final	KEYDATA_MODE_ENCRYPT	
	Value: **3**	
public static final	KEYDATA_MODE_INIT	
	Value: **1**	
public static final	KEYDATA_MODE_PLAYLIST	
	Value: **2**	

Method Summary

void	onHTTPCupertinoEncryptionKeyCreateLive(IApplicationInstance appInstance, String streamName, byte[] encKey) Called when live stream key is requested (per-published stream)
void	onHTTPCupertinoEncryptionKeyCreateVOD(HTTPStreamerSessionCupertino httpSession, byte[] encKey) Called when video on demand key is requested (per-session)
void	onHTTPCupertinoEncryptionKeyData(HTTPStreamerSessionCupertino httpSession, IHTTPRequest req, IHTTPResponse resp, byte[] encKeyData) Called when a key data is requested.
void	onHTTPCupertinoEncryptionKeyLiveChunk(ILiveStreamPacketizer liveStreamPacketizer, String streamName, CupertinoEncInfo encInfo, long chunkId, int mode) Called when live stream key is requested (per-published stream, per-chunk - for rotating keys)
void	onHTTPCupertinoEncryptionKeyRequest(HTTPStreamerSessionCupertino httpSession, IHTTPRequest req, IHTTPResponse resp) Called when a key is requested.
void	onHTTPCupertinoEncryptionKeyVODChunk(HTTPStreamerSessionCupertino httpSession, IHTTPStreamerCupertinoIndex index, CupertinoEncInfo encInfo, long chunkId, int mode) Called when video on demand key is requested (per-session).

Fields

KEYDATA_MODE_INIT

public static final int **KEYDATA_MODE_INIT**

Constant value: **1**

KEYDATA_MODE_PLAYLIST

public static final int **KEYDATA_MODE_PLAYLIST**

Constant value: **2**

KEYDATA_MODE_ENCRYPT

public static final int **KEYDATA_MODE_ENCRYPT**

Constant value: **3**

Methods

onHTTPCupertinoEncryptionKeyRequest

public void **onHTTPCupertinoEncryptionKeyRequest**(HTTPStreamerSessionCupertino httpSession,
        IHTTPRequest req,
        IHTTPResponse resp)

Called when a key is requested. Call httpSession.rejectSession to reject the streaming session and stop delivery of the encryption key.

Parameters:

httpSession - HTTP session
req - HTTP request
resp - HTTP response

onHTTPCupertinoEncryptionKeyData

public void **onHTTPCupertinoEncryptionKeyData**(HTTPStreamerSessionCupertino httpSession,
        IHTTPRequest req,
        IHTTPResponse resp,
        byte[] encKeyData)

Called when a key data is requested. Set encKeyData to the key data to be sent to the client.

Parameters:

httpSession - HTTP session
req - request
resp - response
encKeyData - key data

onHTTPCupertinoEncryptionKeyCreateVOD

public void **onHTTPCupertinoEncryptionKeyCreateVOD**(HTTPStreamerSessionCupertino httpSession,
        byte[] encKey)

Called when video on demand key is requested (per-session)

Parameters:

  `httpSession` - HTTP session
  `encKey` - encryption key

onHTTPCupertinoEncryptionKeyVODChunk

```
public void onHTTPCupertinoEncryptionKeyVODChunk(HTTPStreamerSessionCupertino
httpSession,
        IHTTPStreamerCupertinoIndex index,
        CupertinoEncInfo encInfo,
        long chunkId,
        int mode)
```

Called when video on demand key is requested (per-session). Allows setting of encryption key and URL.

Parameters:

  `httpSession` - HTTP session
  `index` - file index
  `encInfo` - encryption key
  `mode` - KEYDATA_MODE_*

onHTTPCupertinoEncryptionKeyCreateLive

```
public void onHTTPCupertinoEncryptionKeyCreateLive(IApplicationInstance appInstance,
        String streamName,
        byte[] encKey)
```

Called when live stream key is requested (per-published stream)

Parameters:

  `appInstance` - application instance
  `streamName` - stream name
  `encKey` - encryption key

onHTTPCupertinoEncryptionKeyLiveChunk

```
public void onHTTPCupertinoEncryptionKeyLiveChunk(ILiveStreamPacketizer
liveStreamPacketizer,
        String streamName,
        CupertinoEncInfo encInfo,
        long chunkId,
        int mode)
```

Called when live stream key is requested (per-published stream, per-chunk - for rotating keys)

Parameters:

  `liveStreamPacketizer` - live stream packetizer
  `streamName` - stream name
  `encInfo` - encryption info
  `chunkId` - chunk ID, -1 for stream creation
  `mode` - KEYDATA_MODE_*

com.wowza.wms.module
Interface IModuleOnHTTPCupertinoStreamingSession

public interface **IModuleOnHTTPCupertinoStreamingSession**
extends

IModuleOnHTTPSession: method interface for HTTP Cupertino Streaming session create/destroy.

Method Summary

void	onHTTPCupertinoStreamingSessionCreate(HTTPStreamerSessionCupertino httpCupertinoStreamingSession) Invoked when an HTTP Cupertino Streaming session is created.
void	onHTTPCupertinoStreamingSessionDestroy(HTTPStreamerSessionCupertino httpCupertinoStreamingSession) Invoked when an HTTP Cupertino Streaming session is destroyed.

Methods

onHTTPCupertinoStreamingSessionCreate

public void **onHTTPCupertinoStreamingSessionCreate**(HTTPStreamerSessionCupertino httpCupertinoStreamingSession)

Invoked when an HTTP Cupertino Streaming session is created.

Parameters:
httpCupertinoStreamingSession - httpCupertinoStreamingSession

onHTTPCupertinoStreamingSessionDestroy

public void **onHTTPCupertinoStreamingSessionDestroy**(HTTPStreamerSessionCupertino httpCupertinoStreamingSession)

Invoked when an HTTP Cupertino Streaming session is destroyed.

Parameters:
httpCupertinoStreamingSession - httpCupertinoStreamingSession

com.wowza.wms.module
Interface IModuleOnHTTPSanJoseStreamingSession

public interface **IModuleOnHTTPSanJoseStreamingSession**
extends

IModuleOnHTTPSanJoseStreamingSession: method interface for HTTP SanJose Streaming session create/destroy.

Method Summary

void	**onHTTPSanJoseStreamingSessionCreate**(HTTPStreamerSessionSanJose httpSanJoseStreamingSession) Invoked when an HTTP SanJose Streaming session is created.
void	**onHTTPSanJoseStreamingSessionDestroy**(HTTPStreamerSessionSanJose httpSanJoseStreamingSession) Invoked when an HTTP SanJose Streaming session is destroyed.

Methods

onHTTPSanJoseStreamingSessionCreate

public void **onHTTPSanJoseStreamingSessionCreate**(HTTPStreamerSessionSanJose httpSanJoseStreamingSession)

Invoked when an HTTP SanJose Streaming session is created.

Parameters:
httpSanJoseStreamingSession - httpSanJoseStreamingSession

onHTTPSanJoseStreamingSessionDestroy

public void **onHTTPSanJoseStreamingSessionDestroy**(HTTPStreamerSessionSanJose httpSanJoseStreamingSession)

Invoked when an HTTP SanJose Streaming session is destroyed.

Parameters:
httpSanJoseStreamingSession - httpSanJoseStreamingSession

com.wowza.wms.module
Interface IModuleOnHTTPSession

public interface **IModuleOnHTTPSession**
extends

IModuleOnHTTPSession: method interface for HTTP Streaming session create/destroy.

Method Summary

void	onHTTPSessionCreate(IHTTPStreamerSession httpSession) Invoked when an HTTP Session is created (both Smooth and Cupertino sessions).
void	onHTTPSessionDestroy(IHTTPStreamerSession httpSession) Invoked when an HTTP Session is destroyed (both Smooth and Cupertino sessions).

Methods

onHTTPSessionCreate

public void **onHTTPSessionCreate**(IHTTPStreamerSession httpSession)

Invoked when an HTTP Session is created (both Smooth and Cupertino sessions).

Parameters:
  httpSession - httpSession

onHTTPSessionDestroy

public void **onHTTPSessionDestroy**(IHTTPStreamerSession httpSession)

Invoked when an HTTP Session is destroyed (both Smooth and Cupertino sessions).

Parameters:
  httpSession - httpSession

com.wowza.wms.module
Interface IModuleOnHTTPSmoothStreamingPlayReady

public interface **IModuleOnHTTPSmoothStreamingPlayReady**
extends

IModuleOnHTTPSmoothStreamingPlayReady: Still working on this...

Method Summary

void	onHTTPSmoothStreamingPlayReadyCreateLive(IApplicationInstance appInstance, String streamName, com.wowza.wms.drm.playready.PlayReadyKeyInfo playReadyKeyInfo)
void	onHTTPSmoothStreamingPlayReadyCreateVOD(HTTPStreamerSessionSmoothStreamer httpSession, com.wowza.wms.drm.playready.PlayReadyKeyInfo playReadyKeyInfo)

Methods

onHTTPSmoothStreamingPlayReadyCreateVOD

public void **onHTTPSmoothStreamingPlayReadyCreateVOD**(HTTPStreamerSessionSmoothStreamer httpSession,
          com.wowza.wms.drm.playready.PlayReadyKeyInfo playReadyKeyInfo)

onHTTPSmoothStreamingPlayReadyCreateLive

public void **onHTTPSmoothStreamingPlayReadyCreateLive**(IApplicationInstance appInstance,
          String streamName,
          com.wowza.wms.drm.playready.PlayReadyKeyInfo playReadyKeyInfo)

com.wowza.wms.module
Interface IModuleOnHTTPSmoothStreamingSession

public interface **IModuleOnHTTPSmoothStreamingSession**
extends

IModuleOnHTTPSession: method interface for HTTP Smooth Streaming session create/destroy.

Method Summary

void	**onHTTPSmoothStreamingSessionCreate**(HTTPStreamerSessionSmoothStreamer httpSmoothStreamingSession) Invoked when an HTTP Smooth Streaming session is created.
void	**onHTTPSmoothStreamingSessionDestroy**(HTTPStreamerSessionSmoothStreamer httpSmoothStreamingSession) Invoked when an HTTP Smooth Streaming session is destroyed.

Methods

onHTTPSmoothStreamingSessionCreate

public void **onHTTPSmoothStreamingSessionCreate**(HTTPStreamerSessionSmoothStreamer httpSmoothStreamingSession)

Invoked when an HTTP Smooth Streaming session is created.

Parameters:
httpSmoothStreamingSession - httpSmoothStreamingSession

onHTTPSmoothStreamingSessionDestroy

public void **onHTTPSmoothStreamingSessionDestroy**(HTTPStreamerSessionSmoothStreamer httpSmoothStreamingSession)

Invoked when an HTTP Smooth Streaming session is destroyed.

Parameters:
httpSmoothStreamingSession - httpSmoothStreamingSession

com.wowza.wms.module
Interface IModuleOnRTPSession

public interface **IModuleOnRTPSession**
extends

IModuleOnRTPSession: method interface for RTP session create/destroy.

Method Summary

void	onRTPSessionCreate(RTPSession rtpSession) Invoked when an RTP Session is created.
void	onRTPSessionDestroy(RTPSession rtpSession) Invoked when an RTP Session is destroyed.

Methods

onRTPSessionCreate

public void **onRTPSessionCreate**(RTPSession rtpSession)

Invoked when an RTP Session is created.

Parameters:
rtpSession - rtpSession

onRTPSessionDestroy

public void **onRTPSessionDestroy**(RTPSession rtpSession)

Invoked when an RTP Session is destroyed.

Parameters:
rtpSession - rtpSession

com.wowza.wms.module
Interface IModuleOnStream

public interface **IModuleOnStream**
extends

IModuleOnStream: method interface examples for stream level methods in a module.

Method Summary

void	onStreamCreate(IMediaStream stream) Invoked when a stream is created.
void	onStreamDestroy(IMediaStream stream) Invoked when a stream is destroyed.

Methods

onStreamCreate

public void **onStreamCreate**(IMediaStream stream)

Invoked when a stream is created.

Parameters:
stream - stream object

onStreamDestroy

public void **onStreamDestroy**(IMediaStream stream)

Invoked when a stream is destroyed.

Parameters:
stream - stream object

com.wowza.wms.module
Interface IModulePingResult

public interface **IModulePingResult**
extends

IModulePingResult: callback interface used by IClient ping.

Method Summary

void	**onResult**(IClient client, long pingTime, int pingId, boolean result) Triggered on client side result from call to IClient.ping.

Methods

onResult

```
public void onResult(IClient client,
         long pingTime,
         int pingId,
         boolean result)
```

Triggered on client side result from call to IClient.ping. This method will be called on a success or failure (ping timeout) of a ping.

Parameters:
client - client
pingTime - time in server time (milliseconds) when the ping was initiated
pingId - internal server id for the ping request
result - true is ping was successful false if failure (timeout)

com.wowza.wms.module
Class ModuleBase

```
java.lang.Object
    │
    +-com.wowza.wms.module.ModuleBase
```

Direct Known Subclasses:
> ModuleProperties, ModuleMediaCasterStreamMonitorAdvanced, ModuleFastPlay, ModuleCore, ModuleClientLogging, ModuleMediaCaster

---

public abstract class **ModuleBase**
extends Object

ModuleBase: Base class that all server side modules should extend. Provides basic utility functionality for handling function parameters and return data. Also provides a simplified API for logging.

Field Summary

public static final	**CALLBACK_PARAM1** Callback param: param1 Value: **1**
public static final	**CALLBACK_PARAM10** Callback param: param10 Value: **10**
public static final	**CALLBACK_PARAM2** Callback param: param2 Value: **2**
public static final	**CALLBACK_PARAM3** Callback param: param3 Value: **3**
public static final	**CALLBACK_PARAM4** Callback param: param4 Value: **4**
public static final	**CALLBACK_PARAM5** Callback param: param5 Value: **5**
public static final	**CALLBACK_PARAM6** Callback param: param6 Value: **6**
public static final	**CALLBACK_PARAM7** Callback param: param7 Value: **7**

public static final	CALLBACK_PARAM8 Callback param: param8 Value: **8**
public static final	CALLBACK_PARAM9 Callback param: param9 Value: **9**
public static final	PARAM1 Method param: param1 Value: **3**
public static final	PARAM10 Method param: param10 Value: **12**
public static final	PARAM2 Method param: param2 Value: **4**
public static final	PARAM3 Method param: param3 Value: **5**
public static final	PARAM4 Method param: param4 Value: **6**
public static final	PARAM5 Method param: param5 Value: **7**
public static final	PARAM6 Method param: param6 Value: **8**
public static final	PARAM7 Method param: param7 Value: **9**
public static final	PARAM8 Method param: param8 Value: **10**
public static final	PARAM9 Method param: param9 Value: **11**
public static final	PARAMMETHODNAME Method: method name Value: **0**
public static final	PLAYTRANSITION_APPEND Value: **0**

public static final	**PLAYTRANSITION_APPEND_IMMEDIATE**	
	Value: **2**	
public static final	**PLAYTRANSITION_RESET**	
	Value: **1**	
public static final	**PLAYTRANSITION_RESET_IMMEDIATE**	
	Value: **3**	
public static final	**PLAYTRANSITION_STOP**	
	Value: **10**	
public static final	**PLAYTRANSITION_SWAP**	
	Value: **12**	
public static final	**PLAYTRANSITION_SWITCH**	
	Value: **13**	
public static final	**PLAYTRANSITION_UNKNOWN**	
	Value: **14**	
public static final	**PLAYTRANSITIONSTR_APPEND** Play2 transition: APPEND Value: **append**	
public static final	**PLAYTRANSITIONSTR_RESET** Play2 transition: RESET Value: **reset**	
public static final	**PLAYTRANSITIONSTR_STOP** Play2 transition: STOP Value: **stop**	
public static final	**PLAYTRANSITIONSTR_SWAP** Play2 transition: SWAP Value: **swap**	
public static final	**PLAYTRANSITIONSTR_SWITCH** Play2 transition: SWITCH Value: **switch**	
public static final	**PLAYTRANSITIONSTR_UNKNOWN** Play2 transition: UNKNOWN Value: **unknown**	

Constructor Summary

public	**ModuleBase**()

Method Summary

static **IApplicationInstance**	**getAppInstance**(**IClient** client) Get applicationInstace of a client.
static **IApplication**	**getApplication**(**IClient** client) Get application of a client.
static int	**getCallbackParamCount**(**AMFDataList** params) Get the total number of parameters passed to callback.
static **WMSLogger**	**getLogger**() Get the logging interface.
static **AMFData**	**getParam**(**AMFDataList** params, int index) Get parameter by index.
static boolean	**getParamBoolean**(**AMFDataList** params, int index) Get parameter by index, Return as boolean.
static boolean	**getParamBoolean**(**AMFDataList** params, int index, boolean defaultVal) Get parameter by index, Return as boolean.
static int	**getParamCount**(**AMFDataList** params) Get the total number of parameters passed to method.
static java.util.Date	**getParamDate**(**AMFDataList** params, int index) Get parameter by index, Return as Date.
static double	**getParamDouble**(**AMFDataList** params, int index) Get parameter by index, Return as double.
static double	**getParamDouble**(**AMFDataList** params, int index, double defaultVal) Get parameter by index, Return as double.
static int	**getParamInt**(**AMFDataList** params, int index) Get parameter by index, Return as int.
static int	**getParamInt**(**AMFDataList** params, int index, int defaultVal) Get parameter by index, Return as int.
static long	**getParamLong**(**AMFDataList** params, int index) Get parameter by index, Return as long.
static long	**getParamLong**(**AMFDataList** params, int index, long defaultVal) Get parameter by index, Return as long.
static **AMFDataMixedArray**	**getParamMixedArray**(**AMFDataList** params, int index) Get parameter by index, Return as AMFDataMixedArray.
static **AMFDataObj**	**getParamObj**(**AMFDataList** params, int index) Get parameter by index, Return as Object.
static String	**getParamString**(**AMFDataList** params, int index) Get parameter by index, Return as String.
static String	**getParamString**(**AMFDataList** params, int index, String defaultVal) Get parameter by index, Return as String.
static int	**getParamType**(**AMFDataList** params, int index) Get parameter type.

static IMediaStream	**getStream**(IClient client, com.wowza.wms.request.RequestFunction function) For methods called from the client side object NetStream (publish, play, deleteStream) get the IMediaStream object associated with the call.
static IVHost	**getVHost**(IClient client) Get vHost of a client.
void	**invokePrevious**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Wowza Pro will determine command priority based on the order of the modules in the module list.
static void	**invokePrevious**(Object instance, IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Wowza Pro will determine command priority based on the order of the modules in the module list.
static boolean	**isSendResult**(AMFDataList params) Is this method call expecting sendResult to be called.
static void	**sendClientOnStatusError**(IClient client, String code, String description) Send an error message to the client-side client.onStatus handler
static boolean	**sendResult**(IClient client, AMFDataList params, AMFData data) Send a result to client method call as a AMFData object.
static boolean	**sendResult**(IClient client, AMFDataList params, boolean value) Send a result to client method call as a single boolean value.
static boolean	**sendResult**(IClient client, AMFDataList params, double value) Send a result to client method call as a single double value.
static boolean	**sendResult**(IClient client, AMFDataList params, int value) Send a result to client method call as a single int value.
static boolean	**sendResult**(IClient client, AMFDataList params, String value) Send a result to client method call as a single String value.
static void	**sendStreamOnStatusError**(IMediaStream stream, String code, String description) Send an error to the client-side NetStream.onStatus handler

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

PARAMMETHODNAME

`public static final int` **PARAMMETHODNAME**

Method: method name
Constant value: **0**

PARAM1

`public static final int` **`PARAM1`**

Method param: param1
Constant value: **3**

PARAM2

`public static final int` **`PARAM2`**

Method param: param2
Constant value: **4**

PARAM3

`public static final int` **`PARAM3`**

Method param: param3
Constant value: **5**

PARAM4

`public static final int` **`PARAM4`**

Method param: param4
Constant value: **6**

PARAM5

`public static final int` **`PARAM5`**

Method param: param5
Constant value: **7**

PARAM6

`public static final int` **`PARAM6`**

Method param: param6
Constant value: **8**

PARAM7

`public static final int` **`PARAM7`**

Method param: param7
Constant value: **9**

PARAM8

`public static final int` **`PARAM8`**

Method param: param8
Constant value: **10**

PARAM9

`public static final int` **`PARAM9`**

Method param: param9
Constant value: **11**

PARAM10

`public static final int` **PARAM10**

Method param: param10
Constant value: **12**

CALLBACK_PARAM1

`public static final int` **CALLBACK_PARAM1**

Callback param: param1
Constant value: **1**

CALLBACK_PARAM2

`public static final int` **CALLBACK_PARAM2**

Callback param: param2
Constant value: **2**

CALLBACK_PARAM3

`public static final int` **CALLBACK_PARAM3**

Callback param: param3
Constant value: **3**

CALLBACK_PARAM4

`public static final int` **CALLBACK_PARAM4**

Callback param: param4
Constant value: **4**

CALLBACK_PARAM5

`public static final int` **CALLBACK_PARAM5**

Callback param: param5
Constant value: **5**

CALLBACK_PARAM6

`public static final int` **CALLBACK_PARAM6**

Callback param: param6
Constant value: **6**

CALLBACK_PARAM7

`public static final int` **CALLBACK_PARAM7**

Callback param: param7
Constant value: **7**

CALLBACK_PARAM8

`public static final int` **`CALLBACK_PARAM8`**

Callback param: param8
Constant value: **8**

CALLBACK_PARAM9

`public static final int` **`CALLBACK_PARAM9`**

Callback param: param9
Constant value: **9**

CALLBACK_PARAM10

`public static final int` **`CALLBACK_PARAM10`**

Callback param: param10
Constant value: **10**

PLAYTRANSITIONSTR_APPEND

`public static final java.lang.String` **`PLAYTRANSITIONSTR_APPEND`**

Play2 transition: APPEND
Constant value: **append**

PLAYTRANSITIONSTR_RESET

`public static final java.lang.String` **`PLAYTRANSITIONSTR_RESET`**

Play2 transition: RESET
Constant value: **reset**

PLAYTRANSITIONSTR_STOP

`public static final java.lang.String` **`PLAYTRANSITIONSTR_STOP`**

Play2 transition: STOP
Constant value: **stop**

PLAYTRANSITIONSTR_SWAP

`public static final java.lang.String` **`PLAYTRANSITIONSTR_SWAP`**

Play2 transition: SWAP
Constant value: **swap**

PLAYTRANSITIONSTR_SWITCH

`public static final java.lang.String` **`PLAYTRANSITIONSTR_SWITCH`**

Play2 transition: SWITCH
Constant value: **switch**

PLAYTRANSITIONSTR_UNKNOWN

`public static final java.lang.String` **`PLAYTRANSITIONSTR_UNKNOWN`**

Play2 transition: UNKNOWN
Constant value: **unknown**

PLAYTRANSITION_APPEND

`public static final int` **`PLAYTRANSITION_APPEND`**

Constant value: **0**

PLAYTRANSITION_RESET

`public static final int` **`PLAYTRANSITION_RESET`**

Constant value: **1**

PLAYTRANSITION_APPEND_IMMEDIATE

`public static final int` **`PLAYTRANSITION_APPEND_IMMEDIATE`**

Constant value: **2**

PLAYTRANSITION_RESET_IMMEDIATE

`public static final int` **`PLAYTRANSITION_RESET_IMMEDIATE`**

Constant value: **3**

PLAYTRANSITION_STOP

`public static final int` **`PLAYTRANSITION_STOP`**

Constant value: **10**

PLAYTRANSITION_SWAP

`public static final int` **`PLAYTRANSITION_SWAP`**

Constant value: **12**

PLAYTRANSITION_SWITCH

`public static final int` **`PLAYTRANSITION_SWITCH`**

Constant value: **13**

PLAYTRANSITION_UNKNOWN

`public static final int` **`PLAYTRANSITION_UNKNOWN`**

Constant value: **14**

Constructors

ModuleBase

public **ModuleBase**()

Methods

getParamCount

protected static int **getParamCount**(AMFDataList params)

Get the total number of parameters passed to method.

Parameters:
params - parameters

Returns:
total number of parameters

getCallbackParamCount

protected static int **getCallbackParamCount**(AMFDataList params)

Get the total number of parameters passed to callback.

Parameters:
params - parameters

Returns:
total number of parameters

getParamType

protected static int **getParamType**(AMFDataList params,
        int index)

Get parameter type.

Parameters:
params - parameters
index - parameter index

Returns:
parameter type (AMFData.DATA_TYPE_*)

getParam

protected static AMFData **getParam**(AMFDataList params,
        int index)

Get parameter by index. Return as AMFData object.

Parameters:
> params - parameters
> index - parameter index

Returns:
> parameter value as AMFData object, null if out of bounds

---

getParamMixedArray

```
protected static AMFDataMixedArray getParamMixedArray(AMFDataList params,
        int index)
```

Get parameter by index, Return as AMFDataMixedArray.

Parameters:
> params - parameters
> index - parameter index

Returns:
> parameter value as AMFDataMixedArray object, null if out of bounds

---

getParamObj

```
protected static AMFDataObj getParamObj(AMFDataList params,
        int index)
```

Get parameter by index, Return as Object.

Parameters:
> params - parameters
> index - parameter index

Returns:
> parameter value as Object object, null if out of bounds

---

getParamString

```
protected static String getParamString(AMFDataList params,
        int index)
```

Get parameter by index, Return as String.

Parameters:
> params - parameters
> index - parameter index

Returns:
> parameter value as String object, null if out of bounds

---

getParamString

```
protected static String getParamString(AMFDataList params,
        int index,
        String defaultVal)
```

Get parameter by index, Return as String.

Parameters:
> params - parameters

index - parameter index
defaultVal - default value

Returns:

parameter value as String object, defaultVal if out of bounds

getParamDate

```
protected static java.util.Date getParamDate(AMFDataList params,
        int index)
```

Get parameter by index, Return as Date.

Parameters:

params - parameters
index - parameter index

Returns:

parameter value as Date object, null if out of bounds

getParamInt

```
protected static int getParamInt(AMFDataList params,
        int index)
```

Get parameter by index, Return as int.

Parameters:

params - parameters
index - parameter index

Returns:

parameter value as int, 0 if out of bounds

getParamInt

```
protected static int getParamInt(AMFDataList params,
        int index,
        int defaultVal)
```

Get parameter by index, Return as int.

Parameters:

params - parameters
index - parameter index
defaultVal - default value

Returns:

parameter value as int, defaultVal if out of bounds

getParamDouble

```
protected static double getParamDouble(AMFDataList params,
        int index)
```

Get parameter by index, Return as double.

Parameters:

params - parameters

    index - parameter index

Returns:

    parameter value as double, 0 if out of bounds

---

getParamDouble

```
protected static double getParamDouble(AMFDataList params,
        int index,
        double defaultVal)
```

Get parameter by index, Return as double.

Parameters:

    params - parameters
    index - parameter index
    defaultVal - default value

Returns:

    parameter value as double, 0 if out of bounds

---

getParamLong

```
protected static long getParamLong(AMFDataList params,
        int index)
```

Get parameter by index, Return as long.

Parameters:

    params - parameters
    index - parameter index

Returns:

    parameter value as long, 0 if out of bounds

---

getParamLong

```
protected static long getParamLong(AMFDataList params,
        int index,
        long defaultVal)
```

Get parameter by index, Return as long.

Parameters:

    params - parameters
    index - parameter index
    defaultVal - default value

Returns:

    parameter value as long, defaultVal if out of bounds

---

getParamBoolean

```
protected static boolean getParamBoolean(AMFDataList params,
        int index)
```

Get parameter by index, Return as boolean.

Parameters:

    params - parameters

---

index - parameter index

Returns:
parameter value as boolean, false if out of bounds

getParamBoolean

```
protected static boolean getParamBoolean(AMFDataList params,
        int index,
        boolean defaultVal)
```

Get parameter by index, Return as boolean.

Parameters:
params - parameters
index - parameter index
defaultVal - default value

Returns:
parameter value as boolean, defaultVal if out of bounds

getAppInstance

```
protected static IApplicationInstance getAppInstance(IClient client)
```

Get applicationInstace of a client.

Parameters:
client - client

Returns:
applicationInstance

getApplication

```
protected static IApplication getApplication(IClient client)
```

Get application of a client.

Parameters:
client - client

Returns:
application

isSendResult

```
protected static boolean isSendResult(AMFDataList params)
```

Is this method call expecting sendResult to be called. If on the client side the call to NetConnection.call("handlerName", resultObj, param1...); had a value for resultObj (non-null), then the method is expecting some type of result or return data. Calling a variant of sendResult will provide this callback.

Parameters:
params - parameters

Returns:
true if client side call is expecting call to sendResult

getVHost

```
protected static IVHost getVHost(IClient client)
```

Get vHost of a client.

Parameters:
client - client

Returns:
vHost

sendResult

```
protected static boolean sendResult(IClient client,
        AMFDataList params,
        String value)
```

Send a result to client method call as a single String value.

Parameters:
client - client
params - parameters
value - return value

Returns:
true if client side call is expecting call to sendResult

sendResult

```
protected static boolean sendResult(IClient client,
        AMFDataList params,
        boolean value)
```

Send a result to client method call as a single boolean value.

Parameters:
client - client
params - parameters
value - return value

Returns:
true if client side call is expecting call to sendResult

sendResult

```
protected static boolean sendResult(IClient client,
        AMFDataList params,
        int value)
```

Send a result to client method call as a single int value.

Parameters:
client - client
params - parameters
value - return value

Returns:
true if client side call is expecting call to sendResult

sendResult

```
protected static boolean sendResult(IClient client,
        AMFDataList params,
        double value)
```

Send a result to client method call as a single double value.

Parameters:
    client - client
    params - parameters
    value - return value

Returns:
    true if client side call is expecting call to sendResult

sendResult

```
protected static boolean sendResult(IClient client,
        AMFDataList params,
        AMFData data)
```

Send a result to client method call as a AMFData object. This can be a single AMFData value like new
`AMFDataItem((double)1.234)` or a complex type like AMFDataMixedArray, AMFDataArray or AMFDataObj.

Parameters:
    client - client
    params - parameters
    data - return value

Returns:
    true if client side call is expecting call to sendResult

getLogger

```
protected static WMSLogger getLogger()
```

Get the logging interface.

See Also:
    WMSLogger

getStream

```
protected static IMediaStream getStream(IClient client,
        com.wowza.wms.request.RequestFunction function)
```

For methods called from the client side object NetStream (publish, play, deleteStream) get the IMediaStream object associated
with the call.

Parameters:
    client - client
    function - functions

Returns:
    media stream

invokePrevious

```
protected static void invokePrevious(Object instance,
        IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Wowza Pro will determine command priority based on the order of the modules in the module list. Wowza Pro by default will only invoke the last module that defines a given command. This method enables you to call the method by the same name in the previous module that defines that command. For example if you have three modules defined in the module list; ModuleCore, ModuleSecureURLParams and ModuleMyModule and all three modules implement the "play" command. When "play" is invoked it will invoke the "play" command in ModuleMyModule. If in ModuleMyModule you would like to call the "play" command in ModuleSecureURLParams, you can call: invokePrevious(this, client, function, params); and it will invoke the "play" command defined in ModuleSecureURLParams.

Parameters:
instance - instance of the current module
client - client object passed into command
function - function passed into command
params - parameters passed into command

invokePrevious

```
protected void invokePrevious(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Wowza Pro will determine command priority based on the order of the modules in the module list. Wowza Pro by default will only invoke the last module that defines a given command. This method enables you to call the method by the same name in the previous module that defines that command. For example if you have three modules defined in the module list; ModuleCore, ModuleSecureURLParams and ModuleMyModule and all three modules implement the "play" command. When "play" is invoked it will invoke the "play" command in ModuleMyModule. If in ModuleMyModule you would like to call the "play" command in ModuleSecureURLParams, you can call: this.invokePrevious(client, function, params); and it will invoke the "play" command defined in ModuleSecureURLParams.

Parameters:
client - client object passed into command
function - function passed into command
params - parameters passed into command

sendClientOnStatusError

```
protected static void sendClientOnStatusError(IClient client,
        String code,
        String description)
```

Send an error message to the client-side client.onStatus handler

Parameters:
client - destination client
code - code
description - description

sendStreamOnStatusError

```
protected static void sendStreamOnStatusError(IMediaStream stream,
        String code,
        String description)
```

Send an error to the client-side NetStream.onStatus handler

Parameters:

`stream` - destination stream
`code` - code
`description` - description

com.wowza.wms.module
Class ModuleClientLogging

```
java.lang.Object
    |
    +-com.wowza.wms.module.ModuleBase
          |
          +-com.wowza.wms.module.ModuleClientLogging
```
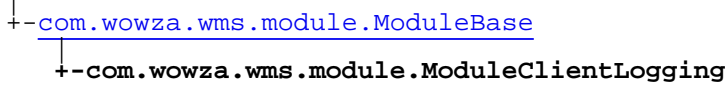
public class **ModuleClientLogging**
extends [ModuleBase](#)

Fields inherited from class `com.wowza.wms.module.ModuleBase`

[CALLBACK_PARAM1](#), [CALLBACK_PARAM10](#), [CALLBACK_PARAM2](#), [CALLBACK_PARAM3](#), [CALLBACK_PARAM4](#),
[CALLBACK_PARAM5](#), [CALLBACK_PARAM6](#), [CALLBACK_PARAM7](#), [CALLBACK_PARAM8](#), [CALLBACK_PARAM9](#), [PARAM1](#),
[PARAM10](#), [PARAM2](#), [PARAM3](#), [PARAM4](#), [PARAM5](#), [PARAM6](#), [PARAM7](#), [PARAM8](#), [PARAM9](#), [PARAMMETHODNAME](#),
[PLAYTRANSITION_APPEND](#), [PLAYTRANSITION_APPEND_IMMEDIATE](#), [PLAYTRANSITION_RESET](#),
[PLAYTRANSITION_RESET_IMMEDIATE](#), [PLAYTRANSITION_STOP](#), [PLAYTRANSITION_SWAP](#),
[PLAYTRANSITION_SWITCH](#), [PLAYTRANSITION_UNKNOWN](#), [PLAYTRANSITIONSTR_APPEND](#),
[PLAYTRANSITIONSTR_RESET](#), [PLAYTRANSITIONSTR_STOP](#), [PLAYTRANSITIONSTR_SWAP](#),
[PLAYTRANSITIONSTR_SWITCH](#), [PLAYTRANSITIONSTR_UNKNOWN](#)

Constructor Summary

public	[ModuleClientLogging](#)()

Method Summary

static void	[logDebug](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Send a debug message to the logging system NetConnection.call("logDebug", null, message);
static void	[logError](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Send a error message to the logging system NetConnection.call("logError", null, message);
static void	[logInfo](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Send a info message to the logging system NetConnection.call("logInfo", null, message);
static void	[logWarn](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Send a warning message to the logging system NetConnection.call("logWarn", null, message);

Methods inherited from class `com.wowza.wms.module.ModuleBase`

[getAppInstance](#), [getApplication](#), [getCallbackParamCount](#), [getLogger](#), [getParam](#),
[getParamBoolean](#), [getParamBoolean](#), [getParamCount](#), [getParamDate](#), [getParamDouble](#),
[getParamDouble](#), [getParamInt](#), [getParamInt](#), [getParamLong](#), [getParamLong](#),
[getParamMixedArray](#), [getParamObj](#), [getParamString](#), [getParamString](#), [getParamType](#),
[getStream](#), [getVHost](#), [invokePrevious](#), [invokePrevious](#), [isSendResult](#),
[sendClientOnStatusError](#), [sendResult](#), [sendResult](#), [sendResult](#), [sendResult](#), [sendResult](#),
[sendStreamOnStatusError](#)

Methods inherited from class `java.lang.Object`
`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Constructors

ModuleClientLogging

`public` **`ModuleClientLogging`**`()`

Methods

logDebug

`public static void` **`logDebug`**`(`[IClient](#)` client,`
`        com.wowza.wms.request.RequestFunction function,`
`        `[AMFDataList](#)` params)`

Send a debug message to the logging system NetConnection.call("logDebug", null, message);

Parameters:
`client` - client
`function` - function
`params` - params (message)

logInfo

`public static void` **`logInfo`**`(`[IClient](#)` client,`
`        com.wowza.wms.request.RequestFunction function,`
`        `[AMFDataList](#)` params)`

Send a info message to the logging system NetConnection.call("logInfo", null, message);

Parameters:
`client` - client
`function` - function
`params` - params (message)

logWarn

`public static void` **`logWarn`**`(`[IClient](#)` client,`
`        com.wowza.wms.request.RequestFunction function,`
`        `[AMFDataList](#)` params)`

Send a warning message to the logging system NetConnection.call("logWarn", null, message);

Parameters:
`client` - client
`function` - function
`params` - params (message)

logError

```
public static void logError(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Send a error message to the logging system NetConnection.call("logError", null, message);

Parameters:

client - client
function - function
params - params (message)

logError

```
public static void logError(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

com.wowza.wms.module
Class ModuleCore

```
java.lang.Object
   │
   +-com.wowza.wms.module.ModuleBase
         │
         +-com.wowza.wms.module.ModuleCore
```

public class **ModuleCore**
extends ModuleBase

ModuleCore includes all the basic commands support by the NetStream and NetConnection client side objects. Any of these methods can be overwritten in a custom module. Below is an example of custom module that overrides the play method to modify the name of the file to be played:

```
package com.wowza.wms.plugin.overrideexample;

import com.wowza.wms.amf.*;
import com.wowza.wms.client.*;
import com.wowza.wms.module.*;
import com.wowza.wms.request.*;

public class ModuleOverrideExample extends ModuleBase
{
        public void play(IClient client, RequestFunction function, AMFDataList params)
        {
                if (params.get(PARAM1).getType() == AMFData.DATA_TYPE_STRING)
                {
                        String playName = params.getString(PARAM1);
                        params.set(PARAM1, new AMFDataItem(playName+"_newname"));
                }
                this.invokePrevious(client, function, params);
        }
}
```

Fields inherited from class com.wowza.wms.module.ModuleBase

CALLBACK_PARAM1, CALLBACK_PARAM10, CALLBACK_PARAM2, CALLBACK_PARAM3, CALLBACK_PARAM4, CALLBACK_PARAM5, CALLBACK_PARAM6, CALLBACK_PARAM7, CALLBACK_PARAM8, CALLBACK_PARAM9, PARAM1, PARAM10, PARAM2, PARAM3, PARAM4, PARAM5, PARAM6, PARAM7, PARAM8, PARAM9, PARAMMETHODNAME, PLAYTRANSITION_APPEND, PLAYTRANSITION_APPEND_IMMEDIATE, PLAYTRANSITION_RESET, PLAYTRANSITION_RESET_IMMEDIATE, PLAYTRANSITION_STOP, PLAYTRANSITION_SWAP, PLAYTRANSITION_SWITCH, PLAYTRANSITION_UNKNOWN, PLAYTRANSITIONSTR_APPEND, PLAYTRANSITIONSTR_RESET, PLAYTRANSITIONSTR_STOP, PLAYTRANSITIONSTR_SWAP, PLAYTRANSITIONSTR_SWITCH, PLAYTRANSITIONSTR_UNKNOWN

Constructor Summary

public	**ModuleCore**()	

Method Summary

static void	**closeStream**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.close();
static void	**createStream**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Create new server side NetStream object (internal to Flash workings).
static void	**deleteStream**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Delete server side stream object (internal to Flash workings).
static void	**FCPublish**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) FCPublish method called by FME 2.5
static void	**FCSubscribe**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) FCSubscribe subscribes to a live stream (if origin edge will start the stream from the origin to the edge)
static void	**FCUnpublish**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
static void	**FCUnPublish**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) FCUnpublish method called by FME 2.5
static void	**FCUnsubscribe**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) FCUnSubscribe to a live stream
static void	**FCUnSubscribe**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
static void	**getClientID**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Get the clientId for a client connection NetConnection.call("getClientID", resultObj);
static void	**getLastStreamId**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Get the id for the last created stream NetConnection.call("getLastStreamId", resultObj);
static void	**getLiveStreamPacketizer**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Get the live stream packetizer list for a client connection NetConnection.call("getLiveStreamPacketizer", resultObj);
static void	**getPageUrl**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) getPageUrl returns the pageUrl from the onConnect metadata
static void	**getReferrer**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) getReferrer returns the referrer from the onConnect metadata

static void	**getRepeaterOriginUrl**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Get the Repeater Origin URL for this client
void	**getStreamBitrate**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Get stream bitrate in bits-per-second for a video on demand stream (will not work for live).
static void	**getStreamLength**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Get stream length in seconds NetConnection.call("getStreamLength", resultObj, streamName); If you pass in an array of streamNames it will return an array of durations.
static void	**getStreamType**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Get the default stream type for a client connection NetConnection.call("getStreamType", resultObj);
static void	**getVersion**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Get the Wowza Pro server version and build number NetConnection.call("getVersion", resultObj);
static void	**initLiveStreamRepeating**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Initialize a stream for live stream repeating
static void	**initStream**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Create new server side NetStream object (internal to Flash workings).
static void	**pause**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.pause([flag : Boolean]);
static void	**pauseRaw**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) pauseRaw method introduced in Flash player 10
static void	**play**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.play(name : Object [,start : Number[, len : Number[, reset : Object]]]);
static void	**play2**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.play(playOptions : NetStreamPlayOptions);
static void	**publish**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.publish(name : String [, howToPublish : String]);
static void	**receiveAudio**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.receiveAudio(receive : Boolean);
static void	**receiveVideo**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.receiveVideo(receive : Boolean | FPS : Number); FPS does not work the same as FMS.
static void	**releaseStream**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)

static void	**seek**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.seek(offset : Number);
static void	**setBandwidthLimit**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
static void	**setBufferTime**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Server side implementation of NetStream.setBufferTime(bufferTime : Number);
static void	**setLiveStreamPacketizer**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Set the live stream packetizer for a stream
static void	**setRepeaterOriginUrl**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Set the Repeater Origin URL for this client
static void	**setStreamType**(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params) Set the default stream type for a client connection NetConnection.call("setStreamType", null, streamType);

Methods inherited from class com.wowza.wms.module.ModuleBase

getAppInstance, getApplication, getCallbackParamCount, getLogger, getParam, getParamBoolean, getParamBoolean, getParamCount, getParamDate, getParamDouble, getParamDouble, getParamInt, getParamInt, getParamLong, getParamLong, getParamMixedArray, getParamObj, getParamString, getParamString, getParamType, getStream, getVHost, invokePrevious, invokePrevious, isSendResult, sendClientOnStatusError, sendResult, sendResult, sendResult, sendResult, sendResult, sendStreamOnStatusError

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

ModuleCore

public **ModuleCore**()

Methods

createStream

public static void **createStream**(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)

Create new server side NetStream object (internal to Flash workings).

Parameters:

```
        client - client
        function - function
        params - parameters (no params)
```

initStream

```
public static void initStream(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Create new server side NetStream object (internal to Flash workings).

Parameters:

```
        client - client
        function - function
        params - parameters (streamIndex, boolean)
```

releaseStream

```
public static void releaseStream(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

getLastStreamId

```
public static void getLastStreamId(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get the id for the last created stream NetConnection.call("getLastStreamId", resultObj);

Parameters:

```
        client - client
        function - client
        params - params (no params)
```

deleteStream

```
public static void deleteStream(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Delete server side stream object (internal to Flash workings).

Parameters:

```
        client - client
        function - function
        params - params
```

publish

```
public static void publish(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.publish(name : String [, howToPublish : String]);

Parameters:

```
        client - client
        function - function
        params - params (name [if name = "false" or "null" stop publishing], howToPublish ["record", "live", "append"])
```

setBandwidthLimit

```
public static void setBandwidthLimit(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

play2

```
public static void play2(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.play(playOptions : NetStreamPlayOptions);

Parameters:

```
        client
        function
        params
```

play

```
public static void play(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.play(name : Object [,start : Number[, len : Number[, reset : Object]]]);

Parameters:

```
        client - client
        function - function
        params - params (name, start, len, reset)
```

closeStream

```
public static void closeStream(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.close();

Parameters:

```
        client - client
        function - function
        params - params (no params)
```

seek

```
public static void seek(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.seek(offset : Number);

Parameters:

```
        client - client
        function - function
        params - params (offset)
```

pause

```
public static void pause(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.pause([flag : Boolean]);

Parameters:
```
        client - client
        function - function
        params - params (flag)
```

setBufferTime

```
public static void setBufferTime(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.setBufferTime(bufferTime : Number);

Parameters:
```
        client - client
        function - function
        params - params (bufferTime)
```

getClientID

```
public static void getClientID(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get the clientId for a client connection NetConnection.call("getClientID", resultObj);

Parameters:
```
        client - client
        function - function
        params - params (no params)
```

getVersion

```
public static void getVersion(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get the Wowza Pro server version and build number NetConnection.call("getVersion", resultObj);

Parameters:
```
        client - client
        function - function
        params - params (no params)
```

setLiveStreamPacketizer

```
public static void setLiveStreamPacketizer(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Set the live stream packetizer for a stream

Parameters:
    client - client
    function - function
    params - params (liveStreamPacketizer)

initLiveStreamRepeating

```
public static void initLiveStreamRepeating(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Initialize a stream for live stream repeating

Parameters:
    client - client
    function - function
    params - params (liveStreamPacketizer, liveStreamRepeater)

getLiveStreamPacketizer

```
public static void getLiveStreamPacketizer(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get the live stream packetizer list for a client connection NetConnection.call("getLiveStreamPacketizer", resultObj);

Parameters:
    client - client
    function - function
    params - params (no params)

setStreamType

```
public static void setStreamType(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Set the default stream type for a client connection NetConnection.call("setStreamType", null, streamType);

Parameters:
    client - client
    function - function
    params - params (streamType)

getStreamType

```
public static void getStreamType(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get the default stream type for a client connection NetConnection.call("getStreamType", resultObj);

(continued from last page)

Parameters:
> client - client
> function - function
> params - params (no params)

---

receiveAudio

```
public static void receiveAudio(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.receiveAudio(receive : Boolean);

Parameters:
> client - client
> function - function
> params - params (receive)

---

receiveVideo

```
public static void receiveVideo(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Server side implementation of NetStream.receiveVideo(receive : Boolean | FPS : Number); FPS does not work the same as FMS. Wowza Pro accepts the following values:

- true: Send all video frames
- false: Send no video
- -1: Send all video frames
- -2: Send half the frames (remove B frames) (Note: only works with Sorenson Spark video with B-frames)
- -3: Send only key frames

Parameters:
> client - client
> function - function
> params - params (receive | FPS)

---

getStreamBitrate

```
public void getStreamBitrate(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get stream bitrate in bits-per-second for a video on demand stream (will not work for live). To call, NetConnection.call("getStreamBitrate", resultObj, streamName);

Parameters:
> client - client
> function - function
> params - params (streamName:String)

---

getStreamLength

```
public static void getStreamLength(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get stream length in seconds NetConnection.call("getStreamLength", resultObj, streamName); If you pass in an array of streamNames it will return an array of durations.

Parameters:
>   client - client
>   function - function
>   params - params (streamName:String or streamNames:Array)

---

getRepeaterOriginUrl

```
public static void getRepeaterOriginUrl(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

Get the Repeater Origin URL for this client

Parameters:
>   client - client
>   function - function
>   params - params

---

setRepeaterOriginUrl

```
public static void setRepeaterOriginUrl(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

Set the Repeater Origin URL for this client

Parameters:
>   client - client
>   function - function
>   params - params (repeaterOriginUrl)

FCPublish

```
public static void FCPublish(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

FCPublish method called by FME 2.5

Parameters:
>   client - client
>   function - function
>   params - params

FCUnPublish

```
public static void FCUnPublish(IClient client,
         com.wowza.wms.request.RequestFunction function,
         AMFDataList params)
```

FCUnpublish method called by FME 2.5

Parameters:
>   client - client
>   function - function
>   params - params

FCUnpublish

```
public static void FCUnpublish(IClient client,
          com.wowza.wms.request.RequestFunction function,
          AMFDataList params)
```

pauseRaw

```
public static void pauseRaw(IClient client,
          com.wowza.wms.request.RequestFunction function,
          AMFDataList params)
```

pauseRaw method introduced in Flash player 10

Parameters:
    client - client
    function - function
    params - params

getReferrer

```
public static void getReferrer(IClient client,
          com.wowza.wms.request.RequestFunction function,
          AMFDataList params)
```

getReferrer returns the referrer from the onConnect metadata

Parameters:
    client - client
    function - function
    params - params

getPageUrl

```
public static void getPageUrl(IClient client,
          com.wowza.wms.request.RequestFunction function,
          AMFDataList params)
```

getPageUrl returns the pageUrl from the onConnect metadata

Parameters:
    client - client
    function - function
    params - params

FCSubscribe

```
public static void FCSubscribe(IClient client,
          com.wowza.wms.request.RequestFunction function,
          AMFDataList params)
```

FCSubscribe subscribes to a live stream (if origin edge will start the stream from the origin to the edge)

Parameters:
    client - client
    function - function
    params - params (streamName:String, [mediaCasterType:String])

FCUnsubscribe

```
public static void FCUnsubscribe(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

FCUnSubscribe to a live stream

Parameters:
    client - client
    function - function
    params - params (streamName:String)

FCUnSubscribe

```
public static void FCUnSubscribe(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

com.wowza.wms.module
Class ModuleFastPlay

```
java.lang.Object
    │
    +-com.wowza.wms.module.ModuleBase
          │
          +-com.wowza.wms.module.ModuleFastPlay
```
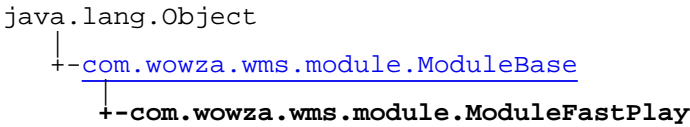
public class **ModuleFastPlay**
extends [ModuleBase](#)

Fields inherited from class com.wowza.wms.module.ModuleBase
CALLBACK_PARAM1, CALLBACK_PARAM10, CALLBACK_PARAM2, CALLBACK_PARAM3, CALLBACK_PARAM4, CALLBACK_PARAM5, CALLBACK_PARAM6, CALLBACK_PARAM7, CALLBACK_PARAM8, CALLBACK_PARAM9, PARAM1, PARAM10, PARAM2, PARAM3, PARAM4, PARAM5, PARAM6, PARAM7, PARAM8, PARAM9, PARAMMETHODNAME, PLAYTRANSITION_APPEND, PLAYTRANSITION_APPEND_IMMEDIATE, PLAYTRANSITION_RESET, PLAYTRANSITION_RESET_IMMEDIATE, PLAYTRANSITION_STOP, PLAYTRANSITION_SWAP, PLAYTRANSITION_SWITCH, PLAYTRANSITION_UNKNOWN, PLAYTRANSITIONSTR_APPEND, PLAYTRANSITIONSTR_RESET, PLAYTRANSITIONSTR_STOP, PLAYTRANSITIONSTR_SWAP, PLAYTRANSITIONSTR_SWITCH, PLAYTRANSITIONSTR_UNKNOWN

Constructor Summary

public	ModuleFastPlay()

Method Summary

static void	setFastPlay(IClient client, com.wowza.wms.request.RequestFunction function, AMFDataList params)
	Turn on fast play NetStream.call("setFastPlay", null, multiplier, frames-per-second, direction);

Methods inherited from class com.wowza.wms.module.ModuleBase
getAppInstance, getApplication, getCallbackParamCount, getLogger, getParam, getParamBoolean, getParamBoolean, getParamCount, getParamDate, getParamDouble, getParamDouble, getParamInt, getParamInt, getParamLong, getParamLong, getParamMixedArray, getParamObj, getParamString, getParamString, getParamType, getStream, getVHost, invokePrevious, invokePrevious, isSendResult, sendClientOnStatusError, sendResult, sendResult, sendResult, sendResult, sendResult, sendStreamOnStatusError

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Constructors

(continued from last page)

ModuleFastPlay

public **ModuleFastPlay**()

Methods

setFastPlay

public static void **setFastPlay**(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)

> Turn on fast play NetStream.call("setFastPlay", null, multiplier, frames-per-second, direction);

> ### Parameters:
> client - client
> function - function
> params - params (multiplier, frames-per-second, direction)

ModuleFastPlay

public **ModuleFastPlay**()

com.wowza.wms.module
Class ModuleMediaCasterStreamMonitorAdvanced

```
java.lang.Object
    |
    +-com.wowza.wms.module.ModuleBase
          |
          +-com.wowza.wms.module.ModuleMediaCasterStreamMonitorAdvanced
```

All Implemented Interfaces:
> IMediaCasterValidateMediaCaster

---

public class **ModuleMediaCasterStreamMonitorAdvanced**
extends ModuleBase
implements IMediaCasterValidateMediaCaster

ModuleMediaCasterStreamMonitorAdvanced: Advanced stream monitoring module.

Add this <Module> definition to the end of the <Modules> list in [install-dir]/conf/[application]/Application.xml:

```
<Module>
        <Name>ModuleMediaCasterStreamMonitorAdvanced</Name>
        <Description>ModuleMediaCasterStreamMonitorAdvanced</Description>
        <Class>com.wowza.wms.module.ModuleMediaCasterStreamMonitorAdvanced</Class>
</Module>
```

Add these properties to the application level <Properties> container at the bottom of [install-dir]/conf/[application]/Application.xml (be sure to get the correct <Properties> container - there are several in the Application.xml file). Carefully read the instructions above each set of properties and set accordingly:

```
<!--
Monitor incoming packets (stream, audio, video) to be sure packets continue to flow from
encoder to stream. The
streamMonitor[type]StartTimeout controls the timeout (milliseconds) for the first packet. The
streamMonitor[type]Timeout
controls the timeout (milliseconds) for packets after the first packet. The stream type
refers to a catch all of any packet of
any type (audio, video, data). If any of these values are set to zero, the test is turned
off.
-->
<Property>
        <Name>streamMonitorStreamStartTimeout</Name>
        <Value>20000</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorStreamTimeout</Name>
        <Value>12000</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorVideoStartTimeout</Name>
        <Value>0</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorVideoTimeout</Name>
        <Value>0</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorAudioStartTimeout</Name>
        <Value>0</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorAudioTimeout</Name>
        <Value>0</Value>
        <Type>Integer</Type>
</Property>

<!--
Monitor the incoming packet timecodes (audio, video or data) to be sure packets do not arrive
out of order or late. The
streamMonitor[type]TCPosTolerance and streamMonitor[type]TCNegTolerance (milliseconds) values
define a sliding window
based on the timecode of the previous packet. For example if these values are set to -500 and
3000 respectively then the
timecode difference between the current arriving packet and the previous packet of that type
must fall within
-500 and 3000 milliseconds.  If not and streamMonitor[type]TCToleranceEnable is set to true
```

```
then stream will be considered
unhealthy and will be reset.
-->
<Property>
        <Name>streamMonitorVideoTCToleranceEnable</Name>
        <Value>false</Value>
        <Type>Boolean</Type>
</Property>
<Property>
        <Name>streamMonitorVideoTCPosTolerance</Name>
        <Value>3000</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorVideoTCNegTolerance</Name>
        <Value>-500</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorAudioTCToleranceEnable</Name>
        <Value>false</Value>
        <Type>Boolean</Type>
</Property>
<Property>
        <Name>streamMonitorAudioTCPosTolerance</Name>
        <Value>3000</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorAudioTCNegTolerance</Name>
        <Value>-500</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorDataTCToleranceEnable</Name>
        <Value>false</Value>
        <Type>Boolean</Type>
</Property>
<Property>
        <Name>streamMonitorDataTCPosTolerance</Name>
        <Value>3000</Value>
        <Type>Integer</Type>
</Property>
<Property>
        <Name>streamMonitorDataTCNegTolerance</Name>
        <Value>-500</Value>
        <Type>Integer</Type>
</Property>



<!--
```

```
Monitors the time difference between the audio and video channel of a stream. If the
difference between the currently arriving
video packet and the previous audio packet (or vice-versa) is greater than
streamMonitorAVSyncTolerance and streamMonitorAVSyncToleranceEnable
is set to true, then the stream will be considered unhealthy and will be reset.
-->
<Property>
        <Name>streamMonitorAVSyncToleranceEnable</Name>
        <Value>false</Value>
        <Type>Boolean</Type>
</Property>
<Property>
        <Name>streamMonitorAVSyncTolerance</Name>
        <Value>1500</Value>
        <Type>Integer</Type>
</Property>


<!--
If set to true, then when a stream is reset and it belong to a MediaStreamNameGroup all
streams in the group will be reset. If
false only the unhealthy stream will be reset.
-->
<Property>
        <Name>streamMonitorResetNameGroups</Name>
        <Value>true</Value>
        <Type>Boolean</Type>
</Property>


<!--
Turns on debug logging of the monitoring.
-->
<Property>
        <Name>streamMonitorDebug</Name>
        <Value>false</Value>
        <Type>Boolean</Type>
</Property>
```

Field Summary

protected	appInstance
protected	badStreams
protected	monitors
protected	streamMonitorAudioStartTimeout

protected	streamMonitorAudioTCNegTolerance	
protected	streamMonitorAudioTCPosTolerance	
protected	streamMonitorAudioTCToleranceEnable	
protected	streamMonitorAudioTimeout	
protected	streamMonitorAVSyncTolerance	
protected	streamMonitorAVSyncToleranceEnable	
protected	streamMonitorDataTCNegTolerance	
protected	streamMonitorDataTCPosTolerance	
protected	streamMonitorDataTCToleranceEnable	
protected	streamMonitorDebug	
protected	streamMonitorResetNameGroups	
protected	streamMonitorStreamStartTimeout	
protected	streamMonitorStreamTimeout	
protected	streamMonitorVideoStartTimeout	
protected	streamMonitorVideoTCNegTolerance	
protected	streamMonitorVideoTCPosTolerance	
protected	streamMonitorVideoTCToleranceEnable	
protected	streamMonitorVideoTimeout	

Fields inherited from class `com.wowza.wms.module.ModuleBase`

CALLBACK_PARAM1, CALLBACK_PARAM10, CALLBACK_PARAM2, CALLBACK_PARAM3, CALLBACK_PARAM4, CALLBACK_PARAM5, CALLBACK_PARAM6, CALLBACK_PARAM7, CALLBACK_PARAM8, CALLBACK_PARAM9, PARAM1, PARAM10, PARAM2, PARAM3, PARAM4, PARAM5, PARAM6, PARAM7, PARAM8, PARAM9, PARAMMETHODNAME, PLAYTRANSITION_APPEND, PLAYTRANSITION_APPEND_IMMEDIATE, PLAYTRANSITION_RESET, PLAYTRANSITION_RESET_IMMEDIATE, PLAYTRANSITION_STOP, PLAYTRANSITION_SWAP, PLAYTRANSITION_SWITCH, PLAYTRANSITION_UNKNOWN, PLAYTRANSITIONSTR_APPEND, PLAYTRANSITIONSTR_RESET, PLAYTRANSITIONSTR_STOP, PLAYTRANSITIONSTR_SWAP, PLAYTRANSITIONSTR_SWITCH, PLAYTRANSITIONSTR_UNKNOWN

Constructor Summary

public	[ModuleMediaCasterStreamMonitorAdvanced](#)()

Method Summary

void	[onAppStart](#)([IApplicationInstance](#) appInstance)
void	[onAppStop](#)([IApplicationInstance](#) appInstance)
boolean	[onResetMediaCaster](#)([IApplicationInstance](#) appInstance, [IMediaCaster](#) mediaCaster)
void	[onStreamCreate](#)([IMediaStream](#) stream)
void	[onStreamDestroy](#)([IMediaStream](#) stream)
boolean	[onValidateMediaCaster](#)([IApplicationInstance](#) appInstance, [IMediaCaster](#) mediaCaster)
void	[onValidateMediaCastersStart](#)([IApplicationInstance](#) appInstance)
void	[onValidateMediaCastersStop](#)([IApplicationInstance](#) appInstance)

Methods inherited from class [com.wowza.wms.module.ModuleBase](#)

[getAppInstance](#), [getApplication](#), [getCallbackParamCount](#), [getLogger](#), [getParam](#), [getParamBoolean](#), [getParamBoolean](#), [getParamCount](#), [getParamDate](#), [getParamDouble](#), [getParamDouble](#), [getParamInt](#), [getParamInt](#), [getParamLong](#), [getParamLong](#), [getParamMixedArray](#), [getParamObj](#), [getParamString](#), [getParamString](#), [getParamType](#), [getStream](#), [getVHost](#), [invokePrevious](#), [invokePrevious](#), [isSendResult](#), [sendClientOnStatusError](#), [sendResult](#), [sendResult](#), [sendResult](#), [sendResult](#), [sendResult](#), [sendStreamOnStatusError](#)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface [com.wowza.wms.mediacaster.IMediaCasterValidateMediaCaster](#)

[onResetMediaCaster](#), [onValidateMediaCaster](#), [onValidateMediaCastersStart](#), [onValidateMediaCastersStop](#)

Fields

streamMonitorStreamStartTimeout

protected int **streamMonitorStreamStartTimeout**

---

streamMonitorStreamTimeout

```
protected int streamMonitorStreamTimeout
```

streamMonitorVideoTCToleranceEnable

```
protected boolean streamMonitorVideoTCToleranceEnable
```

streamMonitorVideoTCPosTolerance

```
protected int streamMonitorVideoTCPosTolerance
```

streamMonitorVideoTCNegTolerance

```
protected int streamMonitorVideoTCNegTolerance
```

streamMonitorAudioTCToleranceEnable

```
protected boolean streamMonitorAudioTCToleranceEnable
```

streamMonitorAudioTCPosTolerance

```
protected int streamMonitorAudioTCPosTolerance
```

streamMonitorAudioTCNegTolerance

```
protected int streamMonitorAudioTCNegTolerance
```

streamMonitorDataTCToleranceEnable

```
protected boolean streamMonitorDataTCToleranceEnable
```

streamMonitorDataTCPosTolerance

```
protected int streamMonitorDataTCPosTolerance
```

streamMonitorDataTCNegTolerance

```
protected int streamMonitorDataTCNegTolerance
```

streamMonitorAVSyncToleranceEnable

`protected boolean` **`streamMonitorAVSyncToleranceEnable`**

streamMonitorAVSyncTolerance

`protected int` **`streamMonitorAVSyncTolerance`**

streamMonitorVideoStartTimeout

`protected int` **`streamMonitorVideoStartTimeout`**

streamMonitorVideoTimeout

`protected int` **`streamMonitorVideoTimeout`**

streamMonitorAudioStartTimeout

`protected int` **`streamMonitorAudioStartTimeout`**

streamMonitorAudioTimeout

`protected int` **`streamMonitorAudioTimeout`**

streamMonitorResetNameGroups

`protected boolean` **`streamMonitorResetNameGroups`**

streamMonitorDebug

`protected boolean` **`streamMonitorDebug`**

appInstance

`protected com.wowza.wms.application.IApplicationInstance` **`appInstance`**

monitors

```
protected java.util.Map monitors
```

---

badStreams

```
protected java.util.Set badStreams
```

Constructors

ModuleMediaCasterStreamMonitorAdvanced

```
public ModuleMediaCasterStreamMonitorAdvanced()
```

Methods

onAppStart

```
public void onAppStart(IApplicationInstance appInstance)
```

---

onAppStop

```
public void onAppStop(IApplicationInstance appInstance)
```

---

onStreamCreate

```
public void onStreamCreate(IMediaStream stream)
```

---

onStreamDestroy

```
public void onStreamDestroy(IMediaStream stream)
```

---

onValidateMediaCastersStart

```
public void onValidateMediaCastersStart(IApplicationInstance appInstance)
```

---

onValidateMediaCaster

```
public boolean onValidateMediaCaster(IApplicationInstance appInstance,
        IMediaCaster mediaCaster)
```

onValidateMediaCastersStop

```
public void onValidateMediaCastersStop(IApplicationInstance appInstance)
```

onResetMediaCaster

```
public boolean onResetMediaCaster(IApplicationInstance appInstance,
        IMediaCaster mediaCaster)
```

com.wowza.wms.module
Class ModuleProperties

```
java.lang.Object
   |
   +-com.wowza.wms.module.ModuleBase
         |
         +-com.wowza.wms.module.ModuleProperties
```
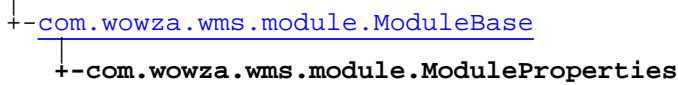
public class **ModuleProperties**
extends [ModuleBase](#)

Fields inherited from class com.wowza.wms.module.ModuleBase

[CALLBACK_PARAM1](#), [CALLBACK_PARAM10](#), [CALLBACK_PARAM2](#), [CALLBACK_PARAM3](#), [CALLBACK_PARAM4](#), [CALLBACK_PARAM5](#), [CALLBACK_PARAM6](#), [CALLBACK_PARAM7](#), [CALLBACK_PARAM8](#), [CALLBACK_PARAM9](#), [PARAM1](#), [PARAM10](#), [PARAM2](#), [PARAM3](#), [PARAM4](#), [PARAM5](#), [PARAM6](#), [PARAM7](#), [PARAM8](#), [PARAM9](#), [PARAMMETHODNAME](#), [PLAYTRANSITION_APPEND](#), [PLAYTRANSITION_APPEND_IMMEDIATE](#), [PLAYTRANSITION_RESET](#), [PLAYTRANSITION_RESET_IMMEDIATE](#), [PLAYTRANSITION_STOP](#), [PLAYTRANSITION_SWAP](#), [PLAYTRANSITION_SWITCH](#), [PLAYTRANSITION_UNKNOWN](#), [PLAYTRANSITIONSTR_APPEND](#), [PLAYTRANSITIONSTR_RESET](#), [PLAYTRANSITIONSTR_STOP](#), [PLAYTRANSITIONSTR_SWAP](#), [PLAYTRANSITIONSTR_SWITCH](#), [PLAYTRANSITIONSTR_UNKNOWN](#)

Constructor Summary

public	[ModuleProperties](#)()

Method Summary

static void	[getAppInstanceProperty](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Get application instance level property value NetConnection.call("getAppInstanceProperty", resultObj, name);
static void	[getApplicationProperty](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Get application level property value NetConnection.call("getApplicationProperty", resultObj, name);
static void	[getClientProperty](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Get client level property value NetConnection.call("getClientProperty", resultObj, name);
static void	[getStreamProperty](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Get stream level property value NetConnection.call("getStreamProperty", resultObj, streamId, name);
static void	[setAppInstanceProperty](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Set application instance level property NetConnection.call("setAppInstanceProperty", null, name, value);
static void	[setApplicationProperty](#)([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Set application level property NetConnection.call("setApplicationProperty", null, name, value);

static void	**setClientProperty**([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params)
	Set client level property NetConnection.call("setClientProperty", null, name, value);
static void	**setStreamProperty**([IClient](#) client, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params)
	Set stream level property NetConnection.call("setStreamProperty", null, streamId, name, value);

Methods inherited from class [com.wowza.wms.module.ModuleBase](#)

[getAppInstance](#), [getApplication](#), [getCallbackParamCount](#), [getLogger](#), [getParam](#), [getParamBoolean](#), [getParamBoolean](#), [getParamCount](#), [getParamDate](#), [getParamDouble](#), [getParamDouble](#), [getParamInt](#), [getParamInt](#), [getParamLong](#), [getParamLong](#), [getParamMixedArray](#), [getParamObj](#), [getParamString](#), [getParamString](#), [getParamType](#), [getStream](#), [getVHost](#), [invokePrevious](#), [invokePrevious](#), [isSendResult](#), [sendClientOnStatusError](#), [sendResult](#), [sendResult](#), [sendResult](#), [sendResult](#), [sendResult](#), [sendStreamOnStatusError](#)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

ModuleProperties

public **ModuleProperties**()

Methods

setApplicationProperty

public static void **setApplicationProperty**([IClient](#) client,
        com.wowza.wms.request.RequestFunction function,
        [AMFDataList](#) params)

Set application level property NetConnection.call("setApplicationProperty", null, name, value);

Parameters:
        client - client
        function - function
        params - params (name, value)

getApplicationProperty

public static void **getApplicationProperty**([IClient](#) client,
        com.wowza.wms.request.RequestFunction function,
        [AMFDataList](#) params)

Get application level property value NetConnection.call("getApplicationProperty", resultObj, name);

Parameters:
        client - client
        function - function

        params - params (name)

---

setAppInstanceProperty

```
public static void setAppInstanceProperty(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Set application instance level property NetConnection.call("setAppInstanceProperty", null, name, value);

Parameters:
        client - client
        function - function
        params - params (name, value)

---

getAppInstanceProperty

```
public static void getAppInstanceProperty(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get application instance level property value NetConnection.call("getAppInstanceProperty", resultObj, name);

Parameters:
        client - client
        function - function
        params - params (name)

---

setClientProperty

```
public static void setClientProperty(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Set client level property NetConnection.call("setClientProperty", null, name, value);

Parameters:
        client - client
        function - function
        params - params (name, value)

---

getClientProperty

```
public static void getClientProperty(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get client level property value NetConnection.call("getClientProperty", resultObj, name);

Parameters:
        client - client
        function - function
        params - params (name)

---

setStreamProperty

```
public static void setStreamProperty(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Set stream level property NetConnection.call("setStreamProperty", null, streamId, name, value);

Parameters:
    `client` - client
    `function` - function
    `params` - params (streamId, name, value)

getStreamProperty

```
public static void getStreamProperty(IClient client,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Get stream level property value NetConnection.call("getStreamProperty", resultObj, streamId, name);

Parameters:
    `client` - client
    `function` - function
    `params` - params (streamId, name)

Package

com.wowza.wms.response

com.wowza.wms.response
Class ResponseFunction

```
java.lang.Object
    |
    +-com.wowza.wms.response.ResponseFunction
```

public class **ResponseFunction**
extends Object

ResponseFunction: class for sending status messages to the client.

Field Summary

public	[doBreak](#)

Constructor Summary

public	[ResponseFunction](#)([IClient](#) client) Create an empty ResponseFunction
public	[ResponseFunction](#)(com.wowza.wms.netconnection.INetConnection netConnection) Create an empty ResponseFunction
public	[ResponseFunction](#)(com.wowza.wms.netconnection.INetConnection netConnection, [AMFObj](#) amfObj) Create an empty ResponseFunction
public	[ResponseFunction](#)([IClient](#) client, [AMFObj](#) amfObj) Create an empty ResponseFunction
public	[ResponseFunction](#)([IMediaStream](#) stream, [AMFObj](#) amfObj) Create an empty ResponseFunction

Method Summary

void	[addBody](#)([AMFData](#) body) Add AMFData to the body of the message.
void	[addBytes](#)(byte[] inbytes) Add raw AMFData bytes[] to message body
void	[createBroadcastMessage](#)(java.nio.ByteBuffer messageBytes) Create broadcast message.
void	[createConnectMessage](#)(String inName, double inResultNum) Create net connection connect message.
void	[createDefaultMessage](#)(String inName, double inResultNum) Create a default message (onStatus type messages).
void	[createEnhancedSeekMessage](#)(byte[] messageBuffer, int src, int tc)

void	`createPlayStatusMessage(String inName)` Create onPlayStatus message.	
void	`createSeekMessage(String inName)` Create a seek result message.	
void	`createSOMessage(byte[] messageBuffer, int objectEncoding)` Create shared object message.	
long	`getTimecode()` Get function timecode (milliseconds).	
int	`getType()` Get message type.	
boolean	`isForceAMF0()`	
void	`setBody(int index, AMFData body)` Add AMFData to the body of the message.	
void	`setForceAMF0(boolean forceAMF0)`	
void	`setMessageBytes(byte[] messageBytes)`	
void	`setRetAMFNumber(int innum)` Set the return channel id	
void	`setSrc(int src)` Set the src (stream id) for the message.	
void	`setTimecode(long timecode)` Set function timecode (milliseconds).	
void	`setType(int type)` Set message type.	
int	`write(java.io.OutputStream out, boolean isAbsTimecode, int chunkSize)` Write message directly to OutputStream	
int	`write(java.io.OutputStream out, int chunkSize)` Write message directly to OutputStream.	

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Fields

doBreak

`public boolean doBreak`

Constructors

ResponseFunction

```
public ResponseFunction(IClient client)
```

Create an empty ResponseFunction

Parameters:
    client - client

ResponseFunction

```
public ResponseFunction(com.wowza.wms.netconnection.INetConnection netConnection)
```

Create an empty ResponseFunction

Parameters:
    netConnection - net connection

ResponseFunction

```
public ResponseFunction(com.wowza.wms.netconnection.INetConnection netConnection,
                        AMFObj amfObj)
```

Create an empty ResponseFunction

Parameters:
    netConnection - net connection
    amfObj - amf object

ResponseFunction

```
public ResponseFunction(IClient client,
                        AMFObj amfObj)
```

Create an empty ResponseFunction

Parameters:
    client - client object
    amfObj - amf object

ResponseFunction

```
public ResponseFunction(IMediaStream stream,
                        AMFObj amfObj)
```

Create an empty ResponseFunction

Parameters:
    stream - media stream object
    amfObj - amf object

Methods

setSrc

```
public void setSrc(int src)
```

Set the src (stream id) for the message.

Parameters:
    src - src (stream id)

createDefaultMessage

```
public void createDefaultMessage(String inName,
        double inResultNum)
```

Create a default message (onStatus type messages).

Parameters:
    inName - handler name (example: onStatus)
    inResultNum - result number of 0 if not result

createConnectMessage

```
public void createConnectMessage(String inName,
        double inResultNum)
```

Create net connection connect message.

Parameters:
    inName - handler name (example: connection)
    inResultNum - result number if 0 not a result

createSeekMessage

```
public void createSeekMessage(String inName)
```

Create a seek result message.

Parameters:
    inName - handler name (example: onStatus)

createPlayStatusMessage

```
public void createPlayStatusMessage(String inName)
```

Create onPlayStatus message.

Parameters:
    inName - handler name (example: onPlayStatus)

setMessageBytes

```
public void setMessageBytes(byte[] messageBytes)
```

createBroadcastMessage

```
public void createBroadcastMessage(java.nio.ByteBuffer messageBytes)
```

Create broadcast message. Used for ByteBuffer handler calls.

Parameters:

messageBytes - ByteBuffer with raw AMFData bytes to be sent to client

createSOMessage

```
public void createSOMessage(byte[] messageBuffer,
        int objectEncoding)
```

Create shared object message. Used for ByteBuffer handler calls.

Parameters:
messageBuffer

createEnhancedSeekMessage

```
public void createEnhancedSeekMessage(byte[] messageBuffer,
        int src,
        int tc)
```

addBody

```
public void addBody(AMFData body)
```

Add AMFData to the body of the message.

Parameters:
body - AMFData message

setBody

```
public void setBody(int index,
        AMFData body)
```

Add AMFData to the body of the message.

Parameters:
index - index in body list
body - AMFData message

addBytes

```
public void addBytes(byte[] inbytes)
```

Add raw AMFData bytes[] to message body

Parameters:
inbytes - raw AMFData bytes[]

setRetAMFNumber

```
public void setRetAMFNumber(int innum)
```

Set the return channel id

Parameters:
innum - return channel id

getTimecode

```
public long getTimecode()
```

Get function timecode (milliseconds).

Returns:
function timecode (milliseconds)

setTimecode

```
public void setTimecode(long timecode)
```

Set function timecode (milliseconds).

Parameters:
timecode - function timecode (milliseconds)

setType

```
public void setType(int type)
```

Set message type. See IVHost.CONTENTTYPE_*

Parameters:
type - message type

getType

```
public int getType()
```

Get message type. See IVHost.CONTENTTYPE_*

Returns:
message type

write

```
public int write(java.io.OutputStream out,
        int chunkSize)
```

Write message directly to OutputStream.

Parameters:
out - OutputStream

Returns:
number of bytes written

isForceAMF0

```
public boolean isForceAMF0()
```

setForceAMF0

```
public void setForceAMF0(boolean forceAMF0)
```

write

```
public int write(java.io.OutputStream out,
        boolean isAbsTimecode,
        int chunkSize)
```

Write message directly to OutputStream

Parameters:
out - OutputStream
isAbsTimecode - is timecode absolute

Returns:
number of bytes written

com.wowza.wms.response
Class ResponseFunctions

```
java.lang.Object
    |
    +-com.wowza.wms.response.ResponseFunctions
```

public class **ResponseFunctions**
extends Object

ResponseFunctions: collection of ResponseFunction objects. This interface is used to asynchronously collect up a set of client responses that will be sent to the client at the next opportunity.

Constructor Summary

public	[ResponseFunctions](#)()

Method Summary

void	[add](#)([ResponseFunction](#) wmsResponseFunction) Add a function.
void	[clear](#)()
boolean	[isPending](#)() Are there any pending items in the list.
int	[output](#)(java.io.OutputStream out, int sendChunkSize) Write all functions (in order added to list) to OutputStream.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

ResponseFunctions

public **ResponseFunctions**()

Methods

add

public void **add**([ResponseFunction](#) wmsResponseFunction)

Add a function.

Parameters:
>   wmsResponseFunction - function

clear

```
public void clear()
```

isPending

```
public boolean isPending()
```

>   Are there any pending items in the list.

> **Returns:**
>   true if items in list

output

```
public int output(java.io.OutputStream out,
        int sendChunkSize)
```

>   Write all functions (in order added to list) to OutputStream.

> **Parameters:**
>   out - OutputStream

> **Returns:**
>   total number of bytes written

Package
com.wowza.wms.rtp.model

com.wowza.wms.rtp.model
Interface IRTPMessageHandler

public interface **IRTPMessageHandler**
extends

IRTPMessageHandler: Internal use.

Method Summary

void	**handleMessage**(java.net.SocketAddress socketAddr, byte[] buffer, int offset, int len)

Methods

handleMessage

```
public void handleMessage(java.net.SocketAddress socketAddr,
        byte[] buffer,
        int offset,
        int len)
```

com.wowza.wms.rtp.model
Interface IRTPMetadataProvider

public interface **IRTPMetadataProvider**
extends

IRTPMetadataProvider: Internal use.

Method Summary

byte[]	**getMetadataPacket**(RTPStream stream)

Methods

getMetadataPacket

public byte[] **getMetadataPacket**(RTPStream stream)

com.wowza.wms.rtp.model
Interface IRTPSessionNotify

public interface **IRTPSessionNotify**
extends

IRTPSessionNotify: listener interface for RTP sessions. See RTPSessions.addSessionListener(IRTPSessionNotify listener)

Method Summary

void	onRTPSessionCreate(RTPSession rtpSession) Invoked when RTP session is created
void	onRTPSessionDestroy(RTPSession rtpSession) Invoked when RTP session is destroyed

Methods

onRTPSessionCreate

public void **onRTPSessionCreate**(RTPSession rtpSession)

Invoked when RTP session is created

Parameters:
rtpSession - RTP session

onRTPSessionDestroy

public void **onRTPSessionDestroy**(RTPSession rtpSession)

Invoked when RTP session is destroyed

Parameters:
rtpSession - RTP session

com.wowza.wms.rtp.model
Interface IRTSPActionNotify

public interface **IRTSPActionNotify**
extends

IRTSPActionNotify: listener interface for RTSP actions. See RTPSession.addActionListener(IRTSPActionNotify actionListener)

Method Summary

void	**onAnnounce**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by ANNOUNCE command
void	**onDescribe**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by DESCRIBE command
void	**onGetParameter**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by GET_PARAMETER command
void	**onOptions**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by OPTIONS command
void	**onPause**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by PAUSE command
void	**onPlay**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by PLAY command
void	**onRecord**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by RECORD command
void	**onRedirect**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by REDIRECT command
void	**onSetParameter**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by SET_PARAMETER command
void	**onSetup**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by SETUP command
void	**onTeardown**(RTSPSession rtspSession, com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp) Invoked by TEARDOWN command

Methods

onDescribe

```
public void onDescribe(RTPSession rtspSession,
        com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by DESCRIBE command

Parameters:

rtspSession - RTP session
req - RTP request
resp - RTP response

onAnnounce

```
public void onAnnounce(RTPSession rtspSession,
        com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by ANNOUNCE command

Parameters:

rtspSession - RTP session
req - RTP request
resp - RTP response

onSetParameter

```
public void onSetParameter(RTPSession rtspSession,
        com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by SET_PARAMETER command

Parameters:

rtspSession - RTP session
req - RTP request
resp - RTP response

onGetParameter

```
public void onGetParameter(RTPSession rtspSession,
        com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by GET_PARAMETER command

Parameters:

rtspSession - RTP session
req - RTP request
resp - RTP response

onOptions

```
public void onOptions(RTPSession rtspSession,
          com.wowza.wms.rtsp.RTSPRequestMessage req,
          com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by OPTIONS command

Parameters:
rtspSession - RTP session
req - RTP request
resp - RTP response

onPause

```
public void onPause(RTPSession rtspSession,
          com.wowza.wms.rtsp.RTSPRequestMessage req,
          com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by PAUSE command

Parameters:
rtspSession - RTP session
req - RTP request
resp - RTP response

onPlay

```
public void onPlay(RTPSession rtspSession,
          com.wowza.wms.rtsp.RTSPRequestMessage req,
          com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by PLAY command

Parameters:
rtspSession - RTP session
req - RTP request
resp - RTP response

onRecord

```
public void onRecord(RTPSession rtspSession,
          com.wowza.wms.rtsp.RTSPRequestMessage req,
          com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by RECORD command

Parameters:
rtspSession
req
resp

onRedirect

```
public void onRedirect(RTPSession rtspSession,
          com.wowza.wms.rtsp.RTSPRequestMessage req,
          com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by REDIRECT command

Parameters:

> `rtspSession` - RTP session
> `req` - RTP request
> `resp` - RTP response

onSetup

```
public void onSetup(RTPSession rtspSession,
        com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by SETUP command

Parameters:

> `rtspSession` - RTP session
> `req` - RTP request
> `resp` - RTP response

onTeardown

```
public void onTeardown(RTPSession rtspSession,
        com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked by TEARDOWN command

Parameters:

> `rtspSession` - RTP session
> `req` - RTP request
> `resp` - RTP response

com.wowza.wms.rtp.model
Class RTPContext

```
java.lang.Object
    │
    +-com.wowza.wms.rtp.model.RTPContext
```

public class **RTPContext**
extends Object

RTPContext: RTP context

Constructor Summary

public	**RTPContext**(IVHost vhost) Constructor

Method Summary

boolean	**acquireSocketAddress**(java.net.SocketAddress socketAddress) Acquire UDP socket address
int	**acquireUDPPortPair**() Acquire next available UDP port pair
int	**acquireUDPPortPair**(int port) Acquire UDP port pair
void	**cacheRTPStream**(RTPStream stream) Cache an RTP stream, Internal use.
void	**doWatchdog**() Idle events for cleanup
boolean	**existsRTSPTunnelingSession**(String sessionId) Return true if session id is valid RTSP/RTP tunneling session id
int[]	**expandToPortPair**(int port) Expand a single port to a pair.
RTPPacketizerItem	**getAudioPacketizerItem**(IApplicationInstance appInstance, int codecId) Get audio packetizer for a given codec id.
com.wowza.wms.rtp.dep acketizer.RTPDePacket izerList	**getDePacketizerList**() Get a list of the available depacketizers
String	**getDePacketizerName**(RTPTrack rtpTrack) Get a depacketizer by name
Object	**getLock**() Get the UDP port manager lock
Object	**getRTSPTunnelingLock**() Get the RTSP/RTP tunneling lock

com.wowza.wms.rtsp.RT SPTunnelingSession	getRTSPTunnelingSession(String sessionId) Get RTSP/RTP tunneling session by session id
RTPSessions	getSessions() Get RTP sessions
RTPPacketizerItem	getStreamPacketizerItem(IApplicationInstance appInstance, int codecId) Get stream packetizer for a given codec id.
com.wowza.wms.rtp.tra nsport.UDPTransportMa nager	getUDPTransportManager() Get the UDP transport manager
IVHost	getVHost() Get vhost
RTPPacketizerItem	getVideoPacketizerItem(IApplicationInstance appInstance, int codecId) Get video packetizer for a given codec id.
void	init() Initialize
void	putAudioPacketizerItem(int codecId, RTPPacketizerItem rtpPacketizerInfo) Set the audio packetizer for a given codec id
void	putRTSPTunnelingSession(String sessionId, com.wowza.wms.rtsp.RTSPTunnelingSession rtspTunnelingSession) Remove RTSP/RTP tunneling session by session id
void	putStreamPacketizerItem(int codecId, RTPPacketizerItem rtpPacketizerInfo) Set the stream packetizer for a given codec id
void	putVideoPacketizerItem(int codecId, RTPPacketizerItem rtpPacketizerInfo) Set the video packetizer for a given codec id
boolean	releaseSocketAddress(java.net.SocketAddress socketAddress) Release UDP socket address
void	releaseUDPPortPair(int port) Release port pair
com.wowza.wms.rtsp.RT SPTunnelingSession	removeRTSPTunnelingSession(String sessionId) Remove RTSP/RTP tunneling session by session id
void	shutdown() Shutdown
void	shutdownRTPSession(RTPSession rtpSession) Gracefully and forcefully shutdown and RTP session
RTPStream	uncacheRTPStream(String streamId) UnCache an RTP stream, Internal use.

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

RTPContext

public **RTPContext**(IVHost vhost)

Constructor

Parameters:
vhost - vhost

Methods

doWatchdog

public void **doWatchdog**()

Idle events for cleanup

init

public void **init**()

Initialize

shutdown

public void **shutdown**()

Shutdown

getAudioPacketizerItem

public RTPPacketizerItem **getAudioPacketizerItem**(IApplicationInstance appInstance,
        int codecId)

Get audio packetizer for a given codec id.

Parameters:
appInstance - application instance
codecId - codec id, see IVHost.CODEC_AUDIO_*

Returns:
packetizer info

putAudioPacketizerItem

public void **putAudioPacketizerItem**(int codecId,
        RTPPacketizerItem rtpPacketizerInfo)

Set the audio packetizer for a given codec id

Parameters:
codecId - codec id, see IVHost.CODEC_AUDIO_*
rtpPacketizerInfo - packetizer info

getVideoPacketizerItem

```
public RTPPacketizerItem getVideoPacketizerItem(IApplicationInstance appInstance,
        int codecId)
```

Get video packetizer for a given codec id.

Parameters:
appInstance - application instance
codecId - codec id, see IVHost.CODEC_VIDEO_*

Returns:
packetizer info

putVideoPacketizerItem

```
public void putVideoPacketizerItem(int codecId,
        RTPPacketizerItem rtpPacketizerInfo)
```

Set the video packetizer for a given codec id

Parameters:
codecId - codec id, see IVHost.CODEC_VIDEO_*
rtpPacketizerInfo - packetizer info

getStreamPacketizerItem

```
public RTPPacketizerItem getStreamPacketizerItem(IApplicationInstance appInstance,
        int codecId)
```

Get stream packetizer for a given codec id.

Parameters:
appInstance - application instance
codecId - codec id, see IVHost.CODEC_STREAM_*

Returns:
packetizer info

putStreamPacketizerItem

```
public void putStreamPacketizerItem(int codecId,
        RTPPacketizerItem rtpPacketizerInfo)
```

Set the stream packetizer for a given codec id

Parameters:
codecId - codec id, see IVHost.CODEC_STREAM_*
rtpPacketizerInfo - packetizer info

getSessions

```
public RTPSessions getSessions()
```

Get RTP sessions

Returns:
RTP sessions

getVHost

`public` `IVHost` `getVHost()`

Get vhost

Returns:
vhost

getUDPTransportManager

`public com.wowza.wms.rtp.transport.UDPTransportManager` `getUDPTransportManager()`

Get the UDP transport manager

Returns:
UDP transport manager

getLock

`public Object` `getLock()`

Get the UDP port manager lock

Returns:
UDP port manager lock

acquireSocketAddress

`public boolean` `acquireSocketAddress(java.net.SocketAddress socketAddress)`

Acquire UDP socket address

Parameters:
socketAddress - UDP socket address

Returns:
true if available

releaseSocketAddress

`public boolean` `releaseSocketAddress(java.net.SocketAddress socketAddress)`

Release UDP socket address

Parameters:
socketAddress - UDP socket address

Returns:
true if available

acquireUDPPortPair

`public int` `acquireUDPPortPair(int port)`

Acquire UDP port pair

Parameters:
>   `port` - starting port

Returns:
>   port

expandToPortPair

```
public int[] expandToPortPair(int port)
```

Expand a single port to a pair. Ports are allocated in pairs always starting with even port number.

Parameters:
>   `port` - port

Returns:
>   port

acquireUDPPortPair

```
public int acquireUDPPortPair()
```

Acquire next available UDP port pair

Returns:
>   port

releaseUDPPortPair

```
public void releaseUDPPortPair(int port)
```

Release port pair

Parameters:
>   `port` - first port of pair

cacheRTPStream

```
public void cacheRTPStream(RTPStream stream)
```

Cache an RTP stream, Internal use.

Parameters:
>   `stream` - RTP stream

uncacheRTPStream

```
public RTPStream uncacheRTPStream(String streamId)
```

UnCache an RTP stream, Internal use.

Parameters:
>   `streamId` - stream id

Returns:
>   RTP Stream

getDePacketizerList

`public com.wowza.wms.rtp.depacketizer.RTPDePacketizerList getDePacketizerList()`

Get a list of the available depacketizers

Returns:
list of the available depacketizers

getDePacketizerName

`public String getDePacketizerName(RTPTrack rtpTrack)`

Get a depacketizer by name

Parameters:
`rtpTrack` - track

Returns:
depacketizer

getRTSPTunnelingLock

`public Object getRTSPTunnelingLock()`

Get the RTSP/RTP tunneling lock

Returns:
RTSP/RTP tunneling lock

getRTSPTunnelingSession

`public com.wowza.wms.rtsp.RTSPTunnelingSession getRTSPTunnelingSession(String sessionId)`

Get RTSP/RTP tunneling session by session id

Parameters:
`sessionId` - session id

Returns:
RTSP/RTP tunneling session

removeRTSPTunnelingSession

`public com.wowza.wms.rtsp.RTSPTunnelingSession removeRTSPTunnelingSession(String sessionId)`

Remove RTSP/RTP tunneling session by session id

Parameters:
`sessionId` - session id

Returns:
RTSP/RTP tunneling session if removed

existsRTSPTunnelingSession

public boolean **existsRTSPTunnelingSession**(String sessionId)

Return true if session id is valid RTSP/RTP tunneling session id

Parameters:
sessionId - session id

Returns:
true if session id is valid RTSP/RTP tunneling session id

putRTSPTunnelingSession

public void **putRTSPTunnelingSession**(String sessionId,
        com.wowza.wms.rtsp.RTSPTunnelingSession rtspTunnelingSession)

Remove RTSP/RTP tunneling session by session id

Parameters:
sessionId - session id
rtspTunnelingSession - RTSP/RTP tunneling session

shutdownRTPSession

public void **shutdownRTPSession**(RTPSession rtpSession)

Gracefully and forcefully shutdown and RTP session

Parameters:
rtpSession - RTP session

com.wowza.wms.rtp.model
Class RTPDestination

```
java.lang.Object
   │
   +-com.wowza.wms.rtp.model.RTPDestination
```

public class **RTPDestination**
extends Object

RTPDestination: Fully describes an RTP destination.

Constructor Summary

public	[RTPDestination](#)()

Method Summary

String	[getAudioHost](#)() Get audio host
int	[getAudioPort](#)() Get audio port
String	[getHost](#)() Get the host
String	[getHostType](#)() Get host type (default IP4)
String	[getName](#)() Get name
int	[getStreamPort](#)() Get stream port
int	[getTTL](#)() Get time to live
String	[getVideoHost](#)() Get video host
int	[getVideoPort](#)() Get video port
boolean	[isMulticast](#)() Return true if multicast destination
boolean	[isRTPWrapped](#)() Is stream wrapped in RTP (MPEG-TS in RTP)
boolean	[isStream](#)() Return true if stream destination (and not native RTP destination)

void	[setAudioHost](String audioHost) Set audio host	
void	[setAudioPort](int audioPort) Set audio port	
void	[setHost](String host) Set host	
void	[setHostType](String hostType) Set host type (default IP4)	
void	[setName](String name) Set name	
void	[setRTPWrapped](boolean isRTPWrapped) Is stream wrapped in RTP (MPEG-TS in RTP)	
void	[setStreamPort](int streamPort) Set stream port	
void	[setTTL](int ttl) Set time to live	
void	[setVideoHost](String videoHost) Set video host	
void	[setVideoPort](int videoPort) Set video port	
String	[toString]()	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

RTPDestination

public **RTPDestination**()

Methods

toString

public String **toString**()

isMulticast

`public boolean isMulticast()`

> Return true if multicast destination
>
> > **Returns:**
> > true if multicast destination

isStream

`public boolean isStream()`

> Return true if stream destination (and not native RTP destination)
>
> > **Returns:**
> > true if stream destination

getHost

`public String getHost()`

> Get the host
>
> > **Returns:**
> > host

setHost

`public void setHost(String host)`

> Set host
>
> > **Parameters:**
> > host - host

getVideoPort

`public int getVideoPort()`

> Get video port
>
> > **Returns:**
> > video port

setVideoPort

`public void setVideoPort(int videoPort)`

> Set video port
>
> > **Parameters:**
> > videoPort - video port

getAudioPort

`public int getAudioPort()`

Get audio port

Returns:
audio port

setAudioPort

```
public void setAudioPort(int audioPort)
```

Set audio port

Parameters:
`audioPort` - audio port

getStreamPort

```
public int getStreamPort()
```

Get stream port

Returns:
stream port

setStreamPort

```
public void setStreamPort(int streamPort)
```

Set stream port

Parameters:
`streamPort` - stream port

getVideoHost

```
public String getVideoHost()
```

Get video host

Returns:
video host

setVideoHost

```
public void setVideoHost(String videoHost)
```

Set video host

Parameters:
`videoHost` - video host

getAudioHost

```
public String getAudioHost()
```

Get audio host

Returns:
audio host

setAudioHost

`public void` **`setAudioHost`**`(String audioHost)`

Set audio host

Parameters:
`audioHost` - audio host

getHostType

`public String` **`getHostType`**`()`

Get host type (default IP4)

Returns:
host type

setHostType

`public void` **`setHostType`**`(String hostType)`

Set host type (default IP4)

Parameters:
`hostType` - host type

getTTL

`public int` **`getTTL`**`()`

Get time to live

Returns:
time to live

setTTL

`public void` **`setTTL`**`(int ttl)`

Set time to live

Parameters:
`ttl` - time to live

isRTPWrapped

`public boolean` **`isRTPWrapped`**`()`

Is stream wrapped in RTP (MPEG-TS in RTP)

Returns:
true if stream wrapped in RTP

setRTPWrapped

`public void` **`setRTPWrapped`**`(boolean isRTPWrapped)`

Is stream wrapped in RTP (MPEG-TS in RTP)

Parameters:
> `isRTPWrapped` - true if stream wrapped in RTP

getName

`public String` **`getName`**`()`

> Get name

> **Returns:**
>> name

setName

`public void` **`setName`**`(String name)`

> Set name

> **Parameters:**
>> name - name

com.wowza.wms.rtp.model
Class RTPPort

```
java.lang.Object
    │
    +-com.wowza.wms.rtp.model.RTPPort
```

All Implemented Interfaces:
>   com.wowza.wms.rtp.transport.IUDPMessageHandler

---

public class **RTPPort**
extends Object
implements com.wowza.wms.rtp.transport.IUDPMessageHandler

Constructor Summary

public	[RTPPort](#)(String inIpAddress, int inPort, String outIpAddress, int outPort, boolean isMulticast) Constructor

Method Summary

void	[bind](#)(int direction) Bind to port
int	[getAddressCount](#)() Get address count
[IRTPMessageHandler](#)	[getHandler](#)() Get the message handler
String	[getInIpAddress](#)() Get in IP address
int	[getInPort](#)() Get in port
String	[getOutIpAddress](#)() Get out IP address
int	[getOutPort](#)() Get out port
RTPTrack	[getTrack](#)() Get RTP track
int	[getTTL](#)() Get time to live (milliseconds)
com.wowza.wms.rtp.transport.IUDPTransport	[getUDPTransport](#)() Get the UDP transport
void	[handleMessage](#)(java.net.SocketAddress socketAddr, Object message)

boolean	**isBlockUDPOut**()	
boolean	**isInMulticast**() Is in stream multicast	
boolean	**isMulticast**() Is multicast	
boolean	**isOutMulticast**() Is out stream multicast	
void	**sendMessage**(byte[] message, int offset, int len) Send a message out	
void	**sendResponse**(byte[] message) Send a response	
void	**sendResponse**(byte[] message, int offset, int len) Send response	
void	**sendResponse**(byte[] message, int offset, int len, java.net.SocketAddress destination) Send response to destination	
void	**sessionClosed**(com.wowza.wms.rtp.transport.IUDPTransportSession session)	
void	**sessionOpened**(com.wowza.wms.rtp.transport.IUDPTransportSession session)	
void	**setAddressCount**(int addressCount) Set address count	
void	**setBlockUDPOut**(boolean blockUDPOut)	
void	**setHandler**([IRTPMessageHandler] handler) Set the message handler	
void	**setTrack**(RTPTrack track) Set RTP track	
void	**setTTL**(int ttl) Set time to live (milliseconds)	
void	**shutdown**() Shutdown port	
void	**unbind**() Unbind	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface `com.wowza.wms.rtp.transport.IUDPMessageHandler`

handleMessage, sessionClosed, sessionOpened

Constructors

RTPPort

```
public RTPPort(String inIpAddress,
               int inPort,
               String outIpAddress,
               int outPort,
               boolean isMulticast)
```

Constructor

Parameters:
inIpAddress - in ip address
inPort - in port
outIpAddress - out ip address
outPort - out port
isMulticast - true if multicast

Methods

getTrack

```
public RTPTrack getTrack()
```

Get RTP track

Returns:
RTP track

setTrack

```
public void setTrack(RTPTrack track)
```

Set RTP track

Parameters:
track - RTP track

getUDPTransport

```
public com.wowza.wms.rtp.transport.IUDPTransport getUDPTransport()
```

Get the UDP transport

Returns:
UDP transport

getInIpAddress

```
public String getInIpAddress()
```

Get in IP address

Returns:
in IP address

getOutIpAddress

`public String `**`getOutIpAddress`**`()`

Get out IP address

Returns:
out IP address

getInPort

`public int `**`getInPort`**`()`

Get in port

Returns:
in port

getOutPort

`public int `**`getOutPort`**`()`

Get out port

Returns:
out port

bind

`public void `**`bind`**`(int direction)`

Bind to port

Parameters:
`direction` - in or out, see IUDPTransport.DIRECTION_*

unbind

`public void `**`unbind`**`()`

Unbind

shutdown

`public void `**`shutdown`**`()`

Shutdown port

getHandler

`public `[`IRTPMessageHandler`](#)` `**`getHandler`**`()`

Get the message handler

Returns:
message handler

setHandler

```
public void setHandler(IRTPMessageHandler handler)
```

Set the message handler

Parameters:

handler - message handler

sendMessage

```
public void sendMessage(byte[] message,
        int offset,
        int len)
```

Send a message out

Parameters:

message - message

offset - offset

len - len

sendResponse

```
public void sendResponse(byte[] message)
```

Send a response

Parameters:

message - message

sendResponse

```
public void sendResponse(byte[] message,
        int offset,
        int len)
```

Send response

Parameters:

message - message

offset - offset

len - len

sendResponse

```
public void sendResponse(byte[] message,
        int offset,
        int len,
        java.net.SocketAddress destination)
```

Send response to destination

Parameters:

message - message

offset - offset

len - len

destination - destination address

sessionOpened

public void **sessionOpened**(com.wowza.wms.rtp.transport.IUDPTransportSession session)

sessionClosed

public void **sessionClosed**(com.wowza.wms.rtp.transport.IUDPTransportSession session)

handleMessage

public void **handleMessage**(java.net.SocketAddress socketAddr,
        Object message)

isInMulticast

public boolean **isInMulticast**()

> Is in stream multicast

> **Returns:**
> > true if multicast

isOutMulticast

public boolean **isOutMulticast**()

> Is out stream multicast

> **Returns:**
> > true if multicast

isMulticast

public boolean **isMulticast**()

> Is multicast

> **Returns:**
> > true if multicast

getTTL

public int **getTTL**()

> Get time to live (milliseconds)

> **Returns:**
> > time to live (milliseconds)

setTTL

public void **setTTL**(int ttl)

Set time to live (milliseconds)

Parameters:
ttl - time to live (milliseconds)

getAddressCount

public int **getAddressCount**()

Get address count

Returns:
address count

setAddressCount

public void **setAddressCount**(int addressCount)

Set address count

Parameters:
addressCount - address count

isBlockUDPOut

public boolean **isBlockUDPOut**()

setBlockUDPOut

public void **setBlockUDPOut**(boolean blockUDPOut)

com.wowza.wms.rtp.model
Class RTPPushPublishSession

```
java.lang.Object
  │
  +-com.wowza.wms.rtp.model.RTPPushPublishSession
```

public class **RTPPushPublishSession**
extends Object

RTPPushPublishSession: RTP push publishing session

Constructor Summary

public	RTPPushPublishSession()

Method Summary

RTPSession	getRTPSession() Get RTP session
String	getSDPData() Get SDP data
void	setRTPSession(RTPSession rtpSession) Set RTP session
void	setSDPData(String sdpData) Set SDP data

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

RTPPushPublishSession

public **RTPPushPublishSession**()

Methods

getSDPData

public String **getSDPData**()

　　Get SDP data

Returns:
    SDP data

setSDPData

`public void` **`setSDPData`**`(String sdpData)`

    Set SDP data

    Parameters:
        `sdpData` - SDP data

getRTPSession

`public` [`RTPSession`](#) **`getRTPSession`**`()`

    Get RTP session

    Returns:
        RTP session

setRTPSession

`public void` **`setRTPSession`**`(`[`RTPSession`](#)` rtpSession)`

    Set RTP session

    Parameters:
        `rtpSession` - RTP session

com.wowza.wms.rtp.model
Class RTPSession

```
java.lang.Object
    │
    +-com.wowza.wms.rtp.model.RTPSession
```

public class **RTPSession**
extends Object

RTPSession: RTP session

Field Summary

protected	**actionListeners**	
protected	**appInstance**	
protected	**appInstanceShutdown**	
protected	**audioPacketizers**	
protected	**authenticatePlayHandler**	
protected	**authenticatePublishHandler**	
public static final	**AUTHMETHOD_PLAY** Value: **1**	
public static final	**AUTHMETHOD_PUBLISH** Value: **2**	
public static final	**AUTHMETHOD_UNKNOWN** Value: **0**	
protected	**connectionHolder**	
protected	**cookieStr**	
protected	**debugRTSPSession**	
protected	**elapsedTime**	
protected	**idleFrequency**	
protected	**idleHandler**	

protected	ioPerformanceCounter	
protected	ioSession	
protected	ip	
protected	isAnnounce	
protected	isConnected	
protected	isDescribe	
protected	isSessionValid	
protected	lastAuthenticateMethod	
protected	lock	
protected	loggedConnect	
protected	properties	
protected	queryStr	
protected	redirectSession	
protected	redirectSessionCode	
protected	redirectSessionMessage	
protected	redirectSessionURL	
protected	referrer	
protected	rtpWriteListener	
protected	rtspPlayRangeStart	
protected	rtspPlayRangeStop	
protected	rtspTunnelingSessionId	
protected	serverIp	
protected	serverPort	
protected	sessionId	

protected	shutdownClient	
protected	streamPacketizers	
protected	streams	
protected	streamsOrder	
protected	timeCreated	
protected	totalIOPerformance2Last	
protected	totalIOPerformanceLast	
protected	uri	
protected	userAgent	
protected	vhost	
protected	videoPacketizers	

Constructor Summary

public	RTPSession(String sessionId) Constructor

Method Summary

void	acceptSession() Accept this session
void	addActionListener(IRTSPActionNotify actionListener) Add action listener
void	addIOPerformance(IOPerformanceCounter totalIOPerformanceResult) Internal use
void	addIOPerformance2(IOPerformanceCounter totalIOPerformanceResult) Internal use
void	addRTSPStream(RTPStream stream) Add RTP stream
void	clearLoggingValues() Clear logging values, Internal use.
void	doIdle()
IApplicationInstance	getAppInstance() Get application instance

RTPPacketizerItem	**getAudioPacketizerItem**(RTPContext rtpContext, IApplicationInstance appInstance, int codecId) Get audio packetizer for a given codec id.
IAuthenticateRTSP	**getAuthenticatePlayHandler**() Get the authentication play handler
IAuthenticateRTSP	**getAuthenticatePublishHandler**() Get the RTP authentication handler
ConnectionHolder	**getConnectionHolder**() Get connection holder, Internal use.
String	**getCookieStr**() Get cookie string
ElapsedTimer	**getElapsedTime**() Get the elapsed timer for this RTP session
int	**getIdleFrequency**() Get idle frequency (milliseconds)
RTPIdleHandler	**getIdleHandler**() Get idle handler
IOPerformanceCounter	**getIOPerformanceCounter**() Get IO performance counter
org.apache.mina.commo n.support.BaseIoSessi on	**getIoSession**()
String	**getIp**() Get remote IP address
int	**getLastAuthenticateMethod**() Get the last method received
WMSProperties	**getProperties**() Get properties
String	**getQueryStr**() Get query string
int	**getRedirectSessionCode**()
String	**getRedirectSessionMessage**()
String	**getRedirectSessionURL**()
String	**getReferrer**() Get referrer
RTPWriteListener	**getRTPWriteListener**() Get the RTP write listener for this session
double	**getRTSPPlayRangeStart**() Get play start range, Internal use.

double	**getRTSPPlayRangeStop**()	
	Get play stop range, Internal use.	
[RTPStream](#)	**getRTSPStream**()	
	Get the default RTP Stream (all RTP sessions have a single RTP Stream)	
[RTPStream](#)	**getRTSPStream**(String streamId)	
	Get RTP Stream	
String	**getRTSPTunnelingSessionId**()	
	Get the RTSP/RTP tunneling session id	
String	**getServerIp**()	
	Get the server IP address	
int	**getServerPort**()	
	Get server port	
String	**getSessionId**()	
	Get session id	
RTPPacketizerItem	**getStreamPacketizerItem**([RTPContext](#) rtpContext, [IApplicationInstance](#) appInstance, int codecId)	
	Get stream packetizer for a given codec id.	
String	**getTimeRunning**()	
	Get the time running for this RTP session	
double	**getTimeRunningSeconds**()	
	Get the number of second this RTP session has been running	
String	**getUri**()	
	Get URI	
String	**getUserAgent**()	
	Get user agent	
[IVHost](#)	**getVHost**()	
	Get vhost	
RTPPacketizerItem	**getVideoPacketizerItem**([RTPContext](#) rtpContext, [IApplicationInstance](#) appInstance, int codecId)	
	Get video packetizer for a given codec id.	
boolean	**isAnnounce**()	
	Has ANNOUNCE command been called on this session	
boolean	**isAnnounceOrDescribe**()	
	Has announce or described been called	
boolean	**isConnected**()	
	Is session connection	
boolean	**isDebugRTSPSession**()	
	True if debugging RTSP session	
boolean	**isDescribe**()	
	Has DESCRIBE command been called on this session	

boolean	**isLoggedConnect**()	
	Is connect logged	
boolean	**isRedirectSession**()	
boolean	**isSessionValid**()	
	Is this session valid	
boolean	**isShutdownClient**()	
	Is RTP session shutdown	
void	**onAnnounce**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on ANNOUNCE command	
void	**onDescribe**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on DESCRIBE command	
void	**onGetParameter**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on GET_PARAMETER command	
void	**onOptions**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on OPTIONS command	
void	**onPause**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on PAUSE command	
void	**onPlay**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on PLAY command	
void	**onRecord**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on RECORD command	
void	**onRedirect**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on REDIRECT command	
void	**onSetParameter**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on SET_PARAMETER command	
void	**onSetup**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on SETUP command	
void	**onTeardown**(com.wowza.wms.rtsp.RTSPRequestMessage req, com.wowza.wms.rtsp.RTSPResponseMessages resp)	
	Invoked on TEARDOWN command	
void	**putAudioPacketizerItem**(int codecId, String classPath)	
	Set the audio packetizer for a given codec id	
void	**putStreamPacketizerItem**(int codecId, String classPath)	
	Set the stream packetizer for a given codec id	

void	**putVideoPacketizerItem**(int codecId, String classPath) Set the video packetizer for a given codec id
void	**redirectSession**(String redirectSessionURL)
void	**redirectSession**(String redirectSessionURL, int redirectSessionCode)
void	**rejectSession**() Reject this session
void	**removeActionListener**(**IRTSPActionNotify** actionListener) Remove action listener
RTPStream	**removeRTSPStream**(String streamId) Remove RTP stream
void	**setAnnounce**(boolean isAnnounce) Set ANNOUNCE command been called on this session
void	**setAppInstance**(**IApplicationInstance** appInstance) Set application instance
void	**setAuthenticatePlayHandler**(**IAuthenticateRTSP** authenticatePlayHandler) Set the authentication play handler
void	**setAuthenticatePublishHandler**(**IAuthenticateRTSP** authenticatePublishHandler) Set the RTP authentication handler
void	**setConnected**(boolean isConnected) Set session is connected
void	**setCookieStr**(String cookieStr) Set cooking string
void	**setDebugRTSPSession**(boolean debugRTSPSession) Set debugging RTSP session
void	**setDescribe**(boolean isDescribe) Set DESCRIBE command been called on this session
void	**setIdleFrequency**(int idleFrequency) Set idle frequency (milliseconds)
void	**setIdleHandler**(RTPIdleHandler idleHandler) Set idle handler
void	**setIOPerformanceCounter**(**IOPerformanceCounter** ioPerformanceCounter) Set IO performance counter
void	**setIoSession**(org.apache.mina.common.support.BaseIoSession ioSession)
void	**setIp**(String ip) Set remote IP address
void	**setLastAuthenticateMethod**(int lastAuthenticateMethod) Set last method received

	void	**setLoggedConnect**(boolean loggedConnect) Set connect logged
	void	**setQueryStr**(String queryStr) Set query string
	void	**setRedirectSession**(boolean redirectSession)
	void	**setRedirectSessionCode**(int redirectSessionCode)
	void	**setRedirectSessionMessage**(String redirectSessionMessage)
	void	**setRedirectSessionURL**(String redirectSessionURL)
	void	**setReferrer**(String referrer) Set referrer
	void	**setRTSPPlayRangeStart**(double rtspPlayRangeStart) Set play start range, Internal use.
	void	**setRTSPPlayRangeStop**(double rtspPlayRangeStop) Set play stop range, Internal use.
	void	**setRTSPTunnelingSessionId**(String rtspTunnelingSessionId) Set the RTSP/RTP tunneling session id
	void	**setServerIp**(String serverIp) Set the server IP address
	void	**setServerPort**(int serverPort) Set server port
	void	**setSessionId**(String sessionId) Set session id
	void	**setSessionValid**(boolean isSessionValid) Set session valid
	void	**setShutdownClient**(boolean shutdownClient) Set RTP session shutdown
	void	**setUri**(String uri) Set URI
	void	**setUserAgent**(String userAgent) Set user agent
	void	**setVHost**(**IVHost** vhost) Set vhost
	void	**shutdown**() shutdown RTP session, Internal use.
	void	**shutdown**(RTPRequestStatus status) shutdown RTP session, Internal use.
	void	**touch**() Touch the stream so it doesn't timeout

void	[updateLoggingValues](https://)()	
	Update logging values, Internal use.	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

AUTHMETHOD_UNKNOWN

public static final int **AUTHMETHOD_UNKNOWN**

Constant value: **0**

AUTHMETHOD_PLAY

public static final int **AUTHMETHOD_PLAY**

Constant value: **1**

AUTHMETHOD_PUBLISH

public static final int **AUTHMETHOD_PUBLISH**

Constant value: **2**

sessionId

protected java.lang.String **sessionId**

rtspTunnelingSessionId

protected java.lang.String **rtspTunnelingSessionId**

streams

protected java.util.Map **streams**

streamsOrder

protected java.util.List **streamsOrder**

vhost

protected com.wowza.wms.vhost.IVHost **vhost**

userAgent

protected java.lang.String **userAgent**

cookieStr

protected java.lang.String **cookieStr**

ip

protected java.lang.String **ip**

isSessionValid

protected boolean **isSessionValid**

authenticatePlayHandler

protected com.wowza.wms.authentication.IAuthenticateRTSP **authenticatePlayHandler**

authenticatePublishHandler

protected com.wowza.wms.authentication.IAuthenticateRTSP **authenticatePublishHandler**

lastAuthenticateMethod

protected int **lastAuthenticateMethod**

appInstance

protected com.wowza.wms.application.IApplicationInstance **appInstance**

appInstanceShutdown

protected com.wowza.wms.application.IApplicationInstance **appInstanceShutdown**

loggedConnect

`protected boolean loggedConnect`

properties

`protected com.wowza.wms.application.WMSProperties properties`

isDescribe

`protected boolean isDescribe`

isAnnounce

`protected boolean isAnnounce`

rtpWriteListener

`protected com.wowza.wms.rtp.model.RTPWriteListener rtpWriteListener`

timeCreated

`protected long timeCreated`

ioPerformanceCounter

`protected com.wowza.util.IOPerformanceCounter ioPerformanceCounter`

totalIOPerformanceLast

`protected com.wowza.util.IOPerformanceCounter totalIOPerformanceLast`

totalIOPerformance2Last

`protected com.wowza.util.IOPerformanceCounter totalIOPerformance2Last`

connectionHolder

```
protected com.wowza.wms.client.ConnectionHolder connectionHolder
```

isConnected

```
protected boolean isConnected
```

idleHandler

```
protected com.wowza.wms.rtp.model.RTPIdleHandler idleHandler
```

serverIp

```
protected java.lang.String serverIp
```

serverPort

```
protected int serverPort
```

uri

```
protected java.lang.String uri
```

referrer

```
protected java.lang.String referrer
```

queryStr

```
protected java.lang.String queryStr
```

actionListeners

```
protected java.util.List actionListeners
```

elapsedTime

```
protected com.wowza.util.ElapsedTimer elapsedTime
```

idleFrequency

```
protected int idleFrequency
```

debugRTSPSession

```
protected boolean debugRTSPSession
```

rtspPlayRangeStart

```
protected double rtspPlayRangeStart
```

rtspPlayRangeStop

```
protected double rtspPlayRangeStop
```

shutdownClient

```
protected boolean shutdownClient
```

audioPacketizers

```
protected java.util.Map audioPacketizers
```

videoPacketizers

```
protected java.util.Map videoPacketizers
```

streamPacketizers

```
protected java.util.Map streamPacketizers
```

redirectSession

```
protected boolean redirectSession
```

redirectSessionCode

```
protected int redirectSessionCode
```

redirectSessionMessage

```
protected java.lang.String redirectSessionMessage
```

redirectSessionURL

```
protected java.lang.String redirectSessionURL
```

lock

```
protected java.lang.Object lock
```

ioSession

```
protected org.apache.mina.common.support.BaseIoSession ioSession
```

Constructors

RTPSession

```
public RTPSession(String sessionId)
```

Constructor

Parameters:

sessionId - session id

Methods

acceptSession

```
public void acceptSession()
```

Accept this session

rejectSession

```
public void rejectSession()
```

Reject this session

getSessionId

```
public String getSessionId()
```

Get session id

Returns:
session id

setSessionId

```
public void setSessionId(String sessionId)
```

Set session id

Parameters:
sessionId - session id

addRTSPStream

```
public void addRTSPStream(RTPStream stream)
```

Add RTP stream

Parameters:
stream - RTP stream

removeRTSPStream

```
public RTPStream removeRTSPStream(String streamId)
```

Remove RTP stream

Parameters:
streamId - stream id

Returns:
RTP stream

getRTSPStream

```
public RTPStream getRTSPStream(String streamId)
```

Get RTP Stream

Parameters:
streamId - stream id

Returns:
RTP Stream

getRTSPStream

```
public RTPStream getRTSPStream()
```

Get the default RTP Stream (all RTP sessions have a single RTP Stream)

Returns:

RTP stream

---

getVHost

`public` `IVHost` **`getVHost`**`()`

> Get vhost
>
> **Returns:**
> > vhost

---

setVHost

`public void` **`setVHost`**`(`IVHost` vhost)`

> Set vhost
>
> **Parameters:**
> > vhost - vhost

---

getUserAgent

`public String` **`getUserAgent`**`()`

> Get user agent
>
> **Returns:**
> > user agent

---

setUserAgent

`public void` **`setUserAgent`**`(String userAgent)`

> Set user agent
>
> **Parameters:**
> > userAgent - user agent

---

touch

`public void` **`touch`**`()`

> Touch the stream so it doesn't timeout

---

shutdown

`public void` **`shutdown`**`()`

> shutdown RTP session, Internal use.

---

shutdown

`public void` **`shutdown`**`(RTPRequestStatus status)`

> shutdown RTP session, Internal use.
>
> **Parameters:**
> > status

isSessionValid

`public boolean` **`isSessionValid`**`()`

Is this session valid

Returns:
true if valid

setSessionValid

`public void` **`setSessionValid`**`(boolean isSessionValid)`

Set session valid

Parameters:
`isSessionValid` - true if valid

getAuthenticatePublishHandler

`public` [`IAuthenticateRTSP`](#) **`getAuthenticatePublishHandler`**`()`

Get the RTP authentication handler

Returns:
RTP authentication handler

setAuthenticatePublishHandler

`public void` **`setAuthenticatePublishHandler`**`(`[`IAuthenticateRTSP`](#) `authenticatePublishHandler)`

Set the RTP authentication handler

Parameters:
`authenticatePublishHandler` - RTP authentication handler

getAuthenticatePlayHandler

`public` [`IAuthenticateRTSP`](#) **`getAuthenticatePlayHandler`**`()`

Get the authentication play handler

Returns:
authentication play handler

setAuthenticatePlayHandler

`public void` **`setAuthenticatePlayHandler`**`(`[`IAuthenticateRTSP`](#) `authenticatePlayHandler)`

Set the authentication play handler

Parameters:
`authenticatePlayHandler` - authentication play handler

getLastAuthenticateMethod

`public int` **`getLastAuthenticateMethod`**`()`

Get the last method received

Returns:
last method received

setLastAuthenticateMethod

`public void` **`setLastAuthenticateMethod`**`(int lastAuthenticateMethod)`

Set last method received

Parameters:
`lastAuthenticateMethod` - last method received

getAppInstance

`public` [`IApplicationInstance`](#) **`getAppInstance`**`()`

Get application instance

Returns:
application instance

setAppInstance

`public void` **`setAppInstance`**`(`[`IApplicationInstance`](#)` appInstance)`

Set application instance

Parameters:
`appInstance` - application instance

isLoggedConnect

`public boolean` **`isLoggedConnect`**`()`

Is connect logged

Returns:
true if logged

setLoggedConnect

`public void` **`setLoggedConnect`**`(boolean loggedConnect)`

Set connect logged

Parameters:
`loggedConnect` - true if logged

getIp

`public String` **`getIp`**`()`

Get remote IP address

Returns:
   remote IP address

setIp

```
public void setIp(String ip)
```

Set remote IP address

Parameters:
   `ip` - remote IP address

getProperties

```
public WMSProperties getProperties()
```

Get properties

Returns:
   properties

isDescribe

```
public boolean isDescribe()
```

Has DESCRIBE command been called on this session

Returns:
   true if called

setDescribe

```
public void setDescribe(boolean isDescribe)
```

Set DESCRIBE command been called on this session

Parameters:
   `isDescribe` - true if called

isAnnounce

```
public boolean isAnnounce()
```

Has ANNOUNCE command been called on this session

Returns:
   true if called

setAnnounce

```
public void setAnnounce(boolean isAnnounce)
```

Set ANNOUNCE command been called on this session

Parameters:
   `isAnnounce` - true if called

isAnnounceOrDescribe

public boolean **isAnnounceOrDescribe**()

Has announce or described been called

Returns:
true if either called

getRTPWriteListener

public RTPWriteListener **getRTPWriteListener**()

Get the RTP write listener for this session

Returns:
RTP write listener

addIOPerformance

public void **addIOPerformance**(IOPerformanceCounter totalIOPerformanceResult)

Internal use

Parameters:
totalIOPerformanceResult - IO performance counter

addIOPerformance2

public void **addIOPerformance2**(IOPerformanceCounter totalIOPerformanceResult)

Internal use

Parameters:
totalIOPerformanceResult - IO performance counter

getConnectionHolder

public ConnectionHolder **getConnectionHolder**()

Get connection holder, Internal use.

Returns:
connection holder

isConnected

public boolean **isConnected**()

Is session connection

Returns:
true if connected

setConnected

public void **setConnected**(boolean isConnected)

Set session is connected

Parameters:
> isConnected - true if connected

getIdleHandler

```
public RTPIdleHandler getIdleHandler()
```

> Get idle handler

> **Returns:**
>> idle handler

setIdleHandler

```
public void setIdleHandler(RTPIdleHandler idleHandler)
```

> Set idle handler

> **Parameters:**
>> idleHandler - idle handler

getServerIp

```
public String getServerIp()
```

> Get the server IP address

> **Returns:**
>> IP address

setServerIp

```
public void setServerIp(String serverIp)
```

> Set the server IP address

> **Parameters:**
>> serverIp - IP address

getServerPort

```
public int getServerPort()
```

> Get server port

> **Returns:**
>> server port

setServerPort

```
public void setServerPort(int serverPort)
```

> Set server port

> **Parameters:**
>> serverPort - server port

getUri

`public String getUri()`

Get URI

Returns:
URI

setUri

`public void setUri(String uri)`

Set URI

Parameters:
`uri` - URI

getReferrer

`public String getReferrer()`

Get referrer

Returns:
referrer

setReferrer

`public void setReferrer(String referrer)`

Set referrer

Parameters:
`referrer` - referrer

getQueryStr

`public String getQueryStr()`

Get query string

Returns:
query string

setQueryStr

`public void setQueryStr(String queryStr)`

Set query string

Parameters:
`queryStr` - query string

updateLoggingValues

`public void updateLoggingValues()`

Update logging values, Internal use.

clearLoggingValues

public void **clearLoggingValues**()

Clear logging values, Internal use.

addActionListener

public void **addActionListener**([IRTSPActionNotify](#) actionListener)

Add action listener

Parameters:
actionListener - action listener

removeActionListener

public void **removeActionListener**([IRTSPActionNotify](#) actionListener)

Remove action listener

Parameters:
actionListener - action listener

onDescribe

public void **onDescribe**(com.wowza.wms.rtsp.RTSPRequestMessage req,
com.wowza.wms.rtsp.RTSPResponseMessages resp)

Invoked on DESCRIBE command

Parameters:
req - RTP request
resp - RTP response

onAnnounce

public void **onAnnounce**(com.wowza.wms.rtsp.RTSPRequestMessage req,
com.wowza.wms.rtsp.RTSPResponseMessages resp)

Invoked on ANNOUNCE command

Parameters:
req - RTP request
resp - RTP response

onGetParameter

public void **onGetParameter**(com.wowza.wms.rtsp.RTSPRequestMessage req,
com.wowza.wms.rtsp.RTSPResponseMessages resp)

Invoked on GET_PARAMETER command

Parameters:
req - RTP request
resp - RTP response

onSetParameter

```
public void onSetParameter(com.wowza.wms.rtsp.RTSPRequestMessage req,
         com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked on SET_PARAMETER command

Parameters:
> `req` - RTP request
> `resp` - RTP response

onOptions

```
public void onOptions(com.wowza.wms.rtsp.RTSPRequestMessage req,
         com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked on OPTIONS command

Parameters:
> `req` - RTP request
> `resp` - RTP response

onPause

```
public void onPause(com.wowza.wms.rtsp.RTSPRequestMessage req,
         com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked on PAUSE command

Parameters:
> `req` - RTP request
> `resp` - RTP response

onPlay

```
public void onPlay(com.wowza.wms.rtsp.RTSPRequestMessage req,
         com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked on PLAY command

Parameters:
> `req` - RTP request
> `resp` - RTP response

onRecord

```
public void onRecord(com.wowza.wms.rtsp.RTSPRequestMessage req,
         com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked on RECORD command

Parameters:
> `req` - RTP request
> `resp` - RTP response

onRedirect

```
public void onRedirect(com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked on REDIRECT command

Parameters:
req - RTP request
resp - RTP response

onSetup

```
public void onSetup(com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked on SETUP command

Parameters:
req - RTP request
resp - RTP response

onTeardown

```
public void onTeardown(com.wowza.wms.rtsp.RTSPRequestMessage req,
        com.wowza.wms.rtsp.RTSPResponseMessages resp)
```

Invoked on TEARDOWN command

Parameters:
req - RTP request
resp - RTP response

getIdleFrequency

```
public int getIdleFrequency()
```

Get idle frequency (milliseconds)

Returns:
idle frequency (milliseconds)

setIdleFrequency

```
public void setIdleFrequency(int idleFrequency)
```

Set idle frequency (milliseconds)

Parameters:
idleFrequency - idle frequency (milliseconds)

isDebugRTSPSession

```
public boolean isDebugRTSPSession()
```

True if debugging RTSP session

Returns:
true if debugging RTSP session

setDebugRTSPSession

`public void` **`setDebugRTSPSession`**`(boolean debugRTSPSession)`

Set debugging RTSP session

Parameters:
debugRTSPSession - true if debugging RTSP session

getRTSPTunnelingSessionId

`public String` **`getRTSPTunnelingSessionId`**`()`

Get the RTSP/RTP tunneling session id

Returns:
RTSP/RTP tunneling session id

setRTSPTunnelingSessionId

`public void` **`setRTSPTunnelingSessionId`**`(String rtspTunnelingSessionId)`

Set the RTSP/RTP tunneling session id

Parameters:
rtspTunnelingSessionId - RTSP/RTP tunneling session id

getRTSPPlayRangeStart

`public double` **`getRTSPPlayRangeStart`**`()`

Get play start range, Internal use.

Returns:
start range

setRTSPPlayRangeStart

`public void` **`setRTSPPlayRangeStart`**`(double rtspPlayRangeStart)`

Set play start range, Internal use.

Parameters:
rtspPlayRangeStart - start range

getRTSPPlayRangeStop

`public double` **`getRTSPPlayRangeStop`**`()`

Get play stop range, Internal use.

Returns:
stop range

setRTSPPlayRangeStop

`public void` **`setRTSPPlayRangeStop`**`(double rtspPlayRangeStop)`

Set play stop range, Internal use.

Parameters:
rtspPlayRangeStop - stop range

---

getCookieStr

public String **getCookieStr**()

Get cookie string

Returns:
cookie string

---

setCookieStr

public void **setCookieStr**(String cookieStr)

Set cooking string

Parameters:
cookieStr - cooking string

---

getIOPerformanceCounter

public IOPerformanceCounter **getIOPerformanceCounter**()

Get IO performance counter

Returns:
IO performance counter

---

setIOPerformanceCounter

public void **setIOPerformanceCounter**(IOPerformanceCounter ioPerformanceCounter)

Set IO performance counter

Parameters:
ioPerformanceCounter - IO performance counter

---

isShutdownClient

public boolean **isShutdownClient**()

Is RTP session shutdown

Returns:
true if shutdown

---

setShutdownClient

public void **setShutdownClient**(boolean shutdownClient)

Set RTP session shutdown

Parameters:
shutdownClient - true if shutdown

---

getAudioPacketizerItem

```
public RTPPacketizerItem getAudioPacketizerItem(RTPContext rtpContext,
        IApplicationInstance appInstance,
        int codecId)
```

Get audio packetizer for a given codec id.

Parameters:

rtpContext - RTP context

appInstance - application instance

codecId - codec id

Returns:

packetizer info

getVideoPacketizerItem

```
public RTPPacketizerItem getVideoPacketizerItem(RTPContext rtpContext,
        IApplicationInstance appInstance,
        int codecId)
```

Get video packetizer for a given codec id.

Parameters:

rtpContext - RTP context

appInstance - application instance

codecId - codec id

Returns:

packetizer info

getStreamPacketizerItem

```
public RTPPacketizerItem getStreamPacketizerItem(RTPContext rtpContext,
        IApplicationInstance appInstance,
        int codecId)
```

Get stream packetizer for a given codec id.

Parameters:

rtpContext - RTP context

appInstance - application instance

codecId - codec id

Returns:

packetizer info

putAudioPacketizerItem

```
public void putAudioPacketizerItem(int codecId,
        String classPath)
```

Set the audio packetizer for a given codec id

Parameters:

codecId - codec id

classPath - class path

putVideoPacketizerItem

```
public void putVideoPacketizerItem(int codecId,
         String classPath)
```

Set the video packetizer for a given codec id

Parameters:
codecId - codec id
classPath - class path

putStreamPacketizerItem

```
public void putStreamPacketizerItem(int codecId,
         String classPath)
```

Set the stream packetizer for a given codec id

Parameters:
codecId - codec id
classPath - class path

getElapsedTime

```
public ElapsedTimer getElapsedTime()
```

Get the elapsed timer for this RTP session

Returns:
elapsed timer

getTimeRunning

```
public String getTimeRunning()
```

Get the time running for this RTP session

Returns:
time running as a string

getTimeRunningSeconds

```
public double getTimeRunningSeconds()
```

Get the number of second this RTP session has been running

Returns:
number of second this RTP session has been running

isRedirectSession

```
public boolean isRedirectSession()
```

setRedirectSession

```
public void setRedirectSession(boolean redirectSession)
```

getRedirectSessionCode

```
public int getRedirectSessionCode()
```

setRedirectSessionCode

```
public void setRedirectSessionCode(int redirectSessionCode)
```

getRedirectSessionURL

```
public String getRedirectSessionURL()
```

setRedirectSessionURL

```
public void setRedirectSessionURL(String redirectSessionURL)
```

redirectSession

```
public void redirectSession(String redirectSessionURL)
```

redirectSession

```
public void redirectSession(String redirectSessionURL,
        int redirectSessionCode)
```

getRedirectSessionMessage

```
public String getRedirectSessionMessage()
```

setRedirectSessionMessage

```
public void setRedirectSessionMessage(String redirectSessionMessage)
```

getIoSession

```
public org.apache.mina.common.support.BaseIoSession getIoSession()
```

setIoSession

public void **setIoSession**(org.apache.mina.common.support.BaseIoSession ioSession)

doIdle

public void **doIdle**()

setIoSession

com.wowza.wms.rtp.model
Class RTPSessions

```
java.lang.Object
    │
    +-com.wowza.wms.rtp.model.RTPSessions
```

public class **RTPSessions**
extends Object

RTPSessions: collection of RTP sessions

Constructor Summary

public	**RTPSessions**(IVHost vhost) Constructor

Method Summary

RTPSession	**addSession**(RTPSession session) Add RTP session
void	**addSessionListener**(IRTPSessionNotify listener) Add a RTP session listener
String	**getNextSessionId**() Get next RTP session id for new session
RTPSession	**getSession**(String sessionId) Get RTP session by session id
java.util.List	**getSessionIds**() Get list of current RTP session ids
IVHost	**getVHost**() Get vhost
void	**notifySessionCreate**(IApplicationInstance appInstance, RTPSession rtpSession) Notify session create
void	**notifySessionCreate**(RTPSession rtpSession) Notify session create
void	**notifySessionDestroy**(IApplicationInstance appInstance, RTPSession rtpSession) Notify session destroy
void	**notifySessionDestroy**(RTPSession rtpSession) Notify session destroy
void	**releaseSessionId**(String sessionIdStr) Release an RTP session id

[RTPSession](#)	[removeSession](#)([RTPSession](#) session) Remove RTP session by object
[RTPSession](#)	[removeSession](#)(String sessionId) Remove RTP session by session id
void	[removeSessionListener](#)([IRTPSessionNotify](#) listener) Remove an RTP session listener

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

RTPSessions

public **RTPSessions**([IVHost](#) vhost)

Constructor

Parameters:
vhost - vhost

Methods

getNextSessionId

public String **getNextSessionId**()

Get next RTP session id for new session

Returns:
RTP session id

getSessionIds

public java.util.List **getSessionIds**()

Get list of current RTP session ids

Returns:
list of current RTP session ids

releaseSessionId

public void **releaseSessionId**(String sessionIdStr)

Release an RTP session id

Parameters:
sessionIdStr - RTP session id

getSession

public RTPSession **getSession**(String sessionId)

Get RTP session by session id

Parameters:
sessionId - session id

Returns:
RTP session

removeSession

public RTPSession **removeSession**(String sessionId)

Remove RTP session by session id

Parameters:
sessionId - session id

Returns:
RTP session if removed

removeSession

public RTPSession **removeSession**(RTPSession session)

Remove RTP session by object

Parameters:
session - RTP session

Returns:
RTP session if removed

addSession

public RTPSession **addSession**(RTPSession session)

Add RTP session

Parameters:
session - RTP session

Returns:
RTP session added

getVHost

public IVHost **getVHost**()

Get vhost

Returns:
vhost

addSessionListener

public void **addSessionListener**([IRTPSessionNotify](#) listener)

Add a RTP session listener

Parameters:
listener - RTP session listener

removeSessionListener

public void **removeSessionListener**([IRTPSessionNotify](#) listener)

Remove an RTP session listener

Parameters:
listener - RTP session listener

notifySessionCreate

public void **notifySessionCreate**([IApplicationInstance](#) appInstance,
        [RTPSession](#) rtpSession)

Notify session create

Parameters:
appInstance - application instance
rtpSession - RTP session

notifySessionDestroy

public void **notifySessionDestroy**([IApplicationInstance](#) appInstance,
        [RTPSession](#) rtpSession)

Notify session destroy

Parameters:
appInstance - application instance
rtpSession - RTP session

notifySessionCreate

public void **notifySessionCreate**([RTPSession](#) rtpSession)

Notify session create

Parameters:
rtpSession - RTP session

notifySessionDestroy

public void **notifySessionDestroy**([RTPSession](#) rtpSession)

Notify session destroy

Parameters:
rtpSession - RTP session

com.wowza.wms.rtp.model
Class RTPStream

```
java.lang.Object
   |
   +-com.wowza.wms.rtp.model.RTPStream
```

public class **RTPStream**
extends Object

RTPStream: RTP Stream class which encapsulates an IMediaStream class for RTP streaming.

Field Summary

public static final	**AVSYNCMETHODS_RTPTIMECODE** Value: **3**
public static final	**AVSYNCMETHODS_SENDERREPORT** Value: **1**
public static final	**AVSYNCMETHODS_SYSTEMCLOCK** Value: **2**
public static final	**AVSYNCMETHODS_UNKNOWN** Value: **0**
public static final	**MODE_PLAY** Value: **1**
public static final	**MODE_PUBLISH** Value: **2**
public static final	**MODE_UNKNOWN** Value: **0**
public static final	**SDPLOCATION_AUDIO** Value: **1**
public static final	**SDPLOCATION_STREAM** Value: **0**
public static final	**SDPLOCATION_VIDEO** Value: **2**
public static final	**STREAMINFO_SESSIONATTRIBUTES** Value: **attributes**

public static final	STREAMINFO_SESSIONBANDWIDTH	
	Value: **bandwidth**	
public static final	STREAMINFO_SESSIONCONNECTIONDATA	
	Value: **connectiondata**	
public static final	STREAMINFO_SESSIONEMAILADDRESS	
	Value: **emailaddress**	
public static final	STREAMINFO_SESSIONINFORMATION	
	Value: **information**	
public static final	STREAMINFO_SESSIONNAME	
	Value: **name**	
public static final	STREAMINFO_SESSIONPHONENUMBER	
	Value: **phonenumber**	
public static final	STREAMINFO_SESSIONPORIGIN	
	Value: **origin**	
public static final	STREAMINFO_SESSIONPROTOCOLVERSION	
	Value: **protocolversion**	
public static final	STREAMINFO_SESSIONREPEATTIMES	
	Value: **repeattimes**	
public static final	STREAMINFO_SESSIONTIMEZONES	
	Value: **timezones**	
public static final	STREAMINFO_SESSIONTIMING	
	Value: **timing**	
public static final	STREAMINFO_SESSIONURI	
	Value: **uri**	

Constructor Summary

public	RTPStream(RTPContext context, String streamId)
	Constructor

Method Summary

void	addStreamAttribute(String key, String value)
	Add a name value pair to the stream attribute collection
void	addStreamInfo(String key, String value)
	Add a name value pair to the stream info collection

void	**addTrack**(RTPTrack track) Add a track
void	**addTrackId**(String seq, String trackId) Add track
void	**addTrackInternal**(RTPTrack track) Add RTP track
void	**announce**(RTPRequestStatus status) Execute announce command
void	**attachToWMSSession**(RtmpSessionInfo wmsSessionInfo) Attach to WMS session, Internal use
static int	**avSyncNameToId**(String avSyncName) Get audio/video sync id from name
void	**checkSendMetadata**(long adjTimecode, RTPTrack rtpTrack) Check to see if we have sent onMetadata event, if not send
void	**clearRTSPSessionExtraLines**() Clear SDP extra lines
void	**clearTracks**() Clear all tracks
boolean	**createStream**(RTPRequestStatus status) Create IMediaStream, Internal use.
String	**describe**(RTPSession rtspSession, int isStreamPacketizer, RTPRequestStatus status) Execute describe command
String	**describe**(RTPSession rtspSession, RTPRequestStatus status) Execute describe command
void	**detachFromWMSSession**(RtmpSessionInfo wmsSessionInfo) Detach from WMS session, Internal use.
void	**extractCodecConfigFromTrackInfo**() Extract codec config information from SDP data
String	**formatRTPInfo**(long timecode, int videoSeq, int audioSeq) Format RTP info
IApplicationInstance	**getAppInstance**() Get application instance
String	**getAppInstanceName**() Get the application instance name
String	**getAppName**() Get the application name
RTPTrack	**getAudioTrack**() Get the most likely audio track
int	**getAutoAllocateInterleavePorts**()

int	**getAVSyncMethod**() Get the audio/video sync method.
double	**getDuration**() Get the duration of the stream if video on demand
String	**getHost**() Get host
AMFPacket[]	**getLastPacketsByType**(IMediaReader localReader, double startTime) Analyzes stream to get information, Internal use.
AMFPacket[]	**getLastPacketsByType**(IMediaStream localStream) Analyzes stream to get information, Internal use.
int	**getMaxRTCPWaitTime**() Get max time to wait for RTCP sender reports (milliseconds)
String	**getMediaCasterType**() Get the media caster stream type for this stream
IMediaReader	**getMediaReader**() Get media reader if video on demand stream
byte[]	**getMetadataPacket**() Get the onMetadata packet for this RTP stream
int	**getMode**() Get the current play/publish mode
int	**getMPEGTSAudioBitrate**()
String	**getMPEGTSAudioLanguage**()
int	**getMPEGTSAudioPID**() Get the audio PID id if MPEG-TS stream
int	**getMPEGTSProgramID**()
int	**getMPEGTSVideoBitrate**()
int	**getMPEGTSVideoPID**() Get the video PID id if MPEG-TS stream
long	**getNormalizedNTPTimecode**(long timecode) Turn a millisecond timcode into an NTP timecode
String	**getOutHost**() Get the out host
RTPContext	**getRTPContext**() Get the RTP context
RTPDestination	**getRTPDestination**() Get RTP destination
RTPStream.RTPInfo	**getRTPInfo**(double startTime, int videoSeq, int audioSeq) Get the RTP info

RTPStreamContext	getRTPStreamContext()
String	getRTSPBindIpAddress() Get the bind RTSP bind IP address
String	getRTSPConnectionAddressType() Get the connection address type
String	getRTSPConnectionIpAddress() Get the connection IP address
int	getRTSPMaximumPendingWriteBytes() Get the maximum number of waiting bytes allow for this RTSP session
String	getRTSPOriginAddressType() Get the origin address type
String	getRTSPOriginIpAddress() Get the origin IP address
String	getRTSPSessionDescription() Get session description
java.util.List	getRTSPSessionExtraLines() Get extra SDP lines
String	getRTSPSessionName() Get session name
int	getRTSPSessionTimeout() Get RTP session timeout (milliseconds)
String	getSDPLang() Get the SDP language
RTPSession	getSession() Get the RTP session
IMediaStream	getStream() Get the IMediaStream
java.util.Map	getStreamAttributes() Get all name/value pairs in the stream attributes collection
String	getStreamExt() Get the stream extension
String	getStreamId() Get the stream id
java.util.Map	getStreamInfo() Get all name/value pairs in the stream info collection
String	getStreamInfo(String key) Get stream info by name
Object	getStreamLock() Get the synchronization lock for this stream

String	getStreamName() Get stream name	
String	getStreamNameLogging() Get the stream name used for logging	
String	getStreamQueryStr() Get the stream query string	
long	getStreamSessionId() Get the stream session id	
String	getStreamSessionIp() Get the stream session ip	
long	getStreamSessionVersion() Get the stream session version	
RTPTrack	getStreamTrack() Get the most likely stream track	
String	getStreamType() Get the stream type	
RTPTrack	getTrack(String trackId) Get track by id	
String	getTrackId(String seq) Get track by sequence number	
java.util.List	getTrackNames() Get a list of track ids	
String	getTransportMode() Get the transport mode	
int	getUDPManagedDeliveryCount()	
int	getUDPManagedDeliveryDelay()	
com.wowza.wms.rtp.transport.IUDPTransport	getUDPTransport(boolean isMulticast) Get the UDP transport for this stream	
IVHost	getVHost() Get vhost	
RTPTrack	getVideoTrack() Get the most likely video track	
long	getVODLastTimeTC() Get the last timecode (milliseconds) sent for video on demand	
long	getVODPlayLen() Get the video on demand play duration (milliseconds)	
long	getVODStartTimeTC() Get the video on demand start time (milliseconds)	

void	**idle**(org.apache.mina.common.IoSession session, RtmpResponseMessage resp) Process idle event
void	**incrementMediaInBytes**(long bytes) Increment the media bytes in, Internal use.
void	**initProperties**(IApplicationInstance appInstance)
boolean	**isAVSyncNonSR**() Is sync method based on RTCP packets (sender report)
boolean	**isBlockUDPOut**()
boolean	**isCheckIpAddr**() Are we checking the ip address of each incoming RTP packet
boolean	**isCheckSSRC**() Are we checking the ssrc values of each incoming RTP packet
boolean	**isForceMPEGTSOut**()
boolean	**isForceRTSPInterleaved**() True if forcing RTSP interleaved
boolean	**isLive**() Is live stream
boolean	**isModePlay**() Is this a play stream
boolean	**isModePublish**() Is this a publish stream
boolean	**isModeUknown**() Is the stream mode unknown (publish vs play)
boolean	**isMPEGTSOut**() Is MPEG-TS out
boolean	**isPaused**() Is stream paused
boolean	**isPublishStreamReady**() See if a publishing stream has enough data to start playback
boolean	**isResetPlayStream**() Is reset stream trigger, Internal use.
boolean	**isResyncAudioVideoOnSR**() Reset audio/video sync on new RTCP packets (not just first packet)
boolean	**isRTPIgnoreProfileLevelId**()
boolean	**isRTPIgnoreSPropParameterSets**()

boolean	**isRTSP**()	
	Is this RTP Stream managed by RTSP session	
boolean	**isRTSPAlwaysUseSDPPorts**()	
	Force RTSP to use ports in SDP data	
boolean	**isRTSPPull**()	
	Is this RTP Stream managed by RTSP session	
boolean	**isSendSDESEvents**()	
	Send RTCP SDES events	
boolean	**isStreamStarted**()	
	Is stream started	
boolean	**isTimeout**(long currTime, int timeout)	
	Is the stream timeout out	
void	**lockRepeaterStreams**(java.util.List streamNames)	
	Lock a list of live repeater stream names, Internal use.	
void	**pause**(RTPRequestStatus status)	
	Execute pause	
RTPStreamPlayResult	**play**(RTPRequestStatus status)	
	Execute play	
RTPStreamPlayResult	**play**(RTPRequestStatus status, double startTime, double stopTime)	
	Execute play	
void	**putRTSPSessionExtraLine**(int location, String line)	
	Add an extra line to the SDP data	
RTPStreamPlayResult	**record**(RTPRequestStatus status)	
	Execute record	
RTPStreamPlayResult	**record**(RTPRequestStatus status, double startTime, double stopTime)	
	Execute record	
RTPTrack	**removeTrack**(String trackId)	
	Remove a track by id	
RTPTrack	**removeTrackInternal**(String trackId)	
	Remove track by track id	
void	**resetSentMetadataFlag**()	
	Reset sendMetadata flag	
void	**setAppInstanceName**(String appInstanceName)	
	Set the application instance name	
void	**setAppName**(String appName)	
	Get the application name	
void	**setAVSyncMethod**(int avSyncMethod)	
	Set the audio/video sync method.	
void	**setBlockUDPOut**(boolean blockUDPOut)	

void	`setCheckIpAddr(boolean checkIpAddr)` Are we checking the ip address of each incoming RTP packet	
void	`setCheckSSRC(boolean checkSSRC)` Are we checking the ssrc values of each incoming RTP packet	
void	`setForceMPEGTSOut(boolean isForceMPEGTSOut)`	
void	`setForceRTSPInterleaved(boolean isForceRTSPInterleaved)` True if forcing RTSP interleaved	
void	`setHost(String host)` Set host	
void	`setLive(boolean isLive)` Is live stream	
void	`setMaxRTCPWaitTime(int maxRTCPWaitTime)` Set max time to wait for RTCP sender reports (milliseconds)	
void	`setMode(int mode)` Set the play/publish mode	
void	`setMPEGTSAudioBitrate(int mpegtsAudioBitrate)`	
void	`setMPEGTSAudioLanguage(String mpegtsAudioLanguage)`	
void	`setMPEGTSAudioPID(int mpegtsAudioPID)` Set the audio PID id if MPEG-TS stream	
void	`setMPEGTSOut(boolean isMPEGTSOut)` Is MPEG-TS out	
void	`setMPEGTSProgramID(int mpegtsProgramId)`	
void	`setMPEGTSVideoBitrate(int mpegtsVideoBitrate)`	
void	`setMPEGTSVideoPID(int mpegtsVideoPID)` Set the video PID id if MPEG-TS stream	
void	`setOutHost(String outHost)` Set out host	
void	`setResetPlayStream(boolean doResetPlayStream)` Set reset stream trigger	
void	`setResyncAudioVideoOnSR(boolean resyncAudioVideoOnSR)` Reset audio/video sync on new RTCP packets (not just first packet)	
void	`setRTPDestination(RTPDestination rtpDestination)` Set RTP destination	
void	`setRTPIgnoreProfileLevelId(boolean rtpIgnoreProfileLevelId)`	
void	`setRTPIgnoreSPropParameterSets(boolean rtpIgnoreSPropParameterSets)`	

void	setRTPStreamContext(RTPStreamContext rtpStreamContext)
void	setRTSP(boolean isRTSP) Is this RTP Stream managed by RTSP session
void	setRTSPAlwaysUseSDPPorts(boolean rtspAlwaysUseSDPPorts) Force RTSP to use ports in SDP data
void	setRTSPBindIpAddress(String rtspBindIpAddress) Set the bind RTSP bind IP address
void	setRTSPConnectionAddressType(String rtspConnectionAddressType) Set the connection address type
void	setRTSPConnectionIpAddress(String rtspConnectionIpAddress) Set the connection IP address
void	setRTSPMaximumPendingWriteBytes(int rtspMaximumPendingWriteBytes) Set the maximum number of waiting bytes allow for this RTSP session
void	setRTSPOriginAddressType(String rtspOriginAddressType) Set the origin address type
void	setRTSPOriginIpAddress(String rtspOriginIpAddress) Set the origin IP address
void	setRTSPPull(boolean isRTSPPull) Is this RTP Stream managed by RTSP session
void	setRTSPSessionDescription(String rtspSessionDescription) Get session description
void	setRTSPSessionName(String rtspSessionName) Set session name
void	setRTSPSessionTimeout(int rtspSessionTimeout) Set RTP session timeout (milliseconds)
void	setSDPLang(String sdpLang) Set the SDP language
void	setSendSDESEvents(boolean sendSDESEvents) Send RTCP SDES events
void	setSession(RTPSession session) Set the RTP session
void	setStreamExt(String streamExt) Set the stream extension
void	setStreamName(String streamName) Set stream name
void	setStreamNameLogging(String streamNameLogging) Set the stream name used for logging
void	setStreamQueryStr(String streamQueryStr) Set the stream query string

void	**setStreamSessionId**(long streamSessionId) Set the stream session id	
void	**setStreamSessionIp**(String streamSessionIp) Set the stream session ip	
void	**setStreamSessionVersion**(long streamSessionVersion) Set the stream session version	
void	**setStreamType**(String streamType) Set the stream type	
void	**setTransportMode**(String transportMode) Set the transport mode	
void	**setUDPManagedDeliveryCount**(int udpManagedDeliveryCount)	
void	**setUDPManagedDeliveryDelay**(int udpManagedDeliveryDelay)	
void	**setVODLastTimeTC**(long vodLastTimeTC) Set the last timecode (milliseconds) sent for video on demand	
void	**setVODPlayLen**(long vodPlayLen) Set the video on demand play duration (milliseconds)	
void	**setVODStartTimeTC**(long vodStartTimeTC) Set the video on demand start time (milliseconds)	
void	**shutdown**(RTPRequestStatus status) shutdown RTP stream, Internal use.	
RTPTrack	**sloppyGetTrack**(String trackId) Sloppy method for finding track by name, Internal use.	
boolean	**streamExists**() Return true if RTP stream contains a IMediaStream	
void	**switchSetupToMPEGTS**() Switch a stream to MPEG-TS, Internal use.	
void	**touch**() Touch the stream so that it does not timeout	
String	**transportFindBestMatch**(String transport) Based on a trasport string from SETUP command find best match	
void	**unlockRepeaterStreams**() Unlock live repeater streams	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Fields

SDPLOCATION_STREAM

`public static final int` **`SDPLOCATION_STREAM`**

Constant value: **0**

SDPLOCATION_AUDIO

`public static final int` **`SDPLOCATION_AUDIO`**

Constant value: **1**

SDPLOCATION_VIDEO

`public static final int` **`SDPLOCATION_VIDEO`**

Constant value: **2**

MODE_UNKNOWN

`public static final int` **`MODE_UNKNOWN`**

Constant value: **0**

MODE_PLAY

`public static final int` **`MODE_PLAY`**

Constant value: **1**

MODE_PUBLISH

`public static final int` **`MODE_PUBLISH`**

Constant value: **2**

AVSYNCMETHODS_UNKNOWN

`public static final int` **`AVSYNCMETHODS_UNKNOWN`**

Constant value: **0**

AVSYNCMETHODS_SENDERREPORT

`public static final int` **`AVSYNCMETHODS_SENDERREPORT`**

Constant value: **1**

AVSYNCMETHODS_SYSTEMCLOCK

public static final int **AVSYNCMETHODS_SYSTEMCLOCK**

Constant value: **2**

AVSYNCMETHODS_RTPTIMECODE

public static final int **AVSYNCMETHODS_RTPTIMECODE**

Constant value: **3**

STREAMINFO_SESSIONPROTOCOLVERSION

public static final java.lang.String **STREAMINFO_SESSIONPROTOCOLVERSION**

Constant value: **protocolversion**

STREAMINFO_SESSIONPORIGIN

public static final java.lang.String **STREAMINFO_SESSIONPORIGIN**

Constant value: **origin**

STREAMINFO_SESSIONNAME

public static final java.lang.String **STREAMINFO_SESSIONNAME**

Constant value: **name**

STREAMINFO_SESSIONINFORMATION

public static final java.lang.String **STREAMINFO_SESSIONINFORMATION**

Constant value: **information**

STREAMINFO_SESSIONURI

public static final java.lang.String **STREAMINFO_SESSIONURI**

Constant value: **uri**

STREAMINFO_SESSIONEMAILADDRESS

public static final java.lang.String **STREAMINFO_SESSIONEMAILADDRESS**

Constant value: **emailaddress**

STREAMINFO_SESSIONPHONENUMBER

public static final java.lang.String **STREAMINFO_SESSIONPHONENUMBER**

Constant value: **phonenumber**

STREAMINFO_SESSIONCONNECTIONDATA

`public static final java.lang.String` **STREAMINFO_SESSIONCONNECTIONDATA**

Constant value: **connectiondata**

STREAMINFO_SESSIONBANDWIDTH

`public static final java.lang.String` **STREAMINFO_SESSIONBANDWIDTH**

Constant value: **bandwidth**

STREAMINFO_SESSIONTIMING

`public static final java.lang.String` **STREAMINFO_SESSIONTIMING**

Constant value: **timing**

STREAMINFO_SESSIONREPEATTIMES

`public static final java.lang.String` **STREAMINFO_SESSIONREPEATTIMES**

Constant value: **repeattimes**

STREAMINFO_SESSIONTIMEZONES

`public static final java.lang.String` **STREAMINFO_SESSIONTIMEZONES**

Constant value: **timezones**

STREAMINFO_SESSIONATTRIBUTES

`public static final java.lang.String` **STREAMINFO_SESSIONATTRIBUTES**

Constant value: **attributes**

Constructors

RTPStream

```
public RTPStream(RTPContext context,
                 String streamId)
```

Constructor

Parameters:
context - RTP context
streamId - stream id

Methods

getRTPContext

public RTPContext **getRTPContext**()

>   Get the RTP context

>   **Returns:**
>   RTP context

getStreamLock

public Object **getStreamLock**()

>   Get the synchronization lock for this stream

>   **Returns:**
>   synchronization lock for this stream

addTrack

public void **addTrack**(RTPTrack track)

>   Add a track

>   **Parameters:**
>   track - RTP track

removeTrack

public RTPTrack **removeTrack**(String trackId)

>   Remove a track by id

>   **Parameters:**
>   trackId - track id

>   **Returns:**
>   RTP track

addTrackInternal

public void **addTrackInternal**(RTPTrack track)

>   Add RTP track

>   **Parameters:**
>   track - RTP track

removeTrackInternal

public RTPTrack **removeTrackInternal**(String trackId)

>   Remove track by track id

>   **Parameters:**
>   trackId - track id

>   **Returns:**

RTP track that was removed

clearTracks

`public void clearTracks()`

Clear all tracks

incrementMediaInBytes

`public void incrementMediaInBytes(long bytes)`

Increment the media bytes in, Internal use.

Parameters:
bytes

sloppyGetTrack

`public RTPTrack sloppyGetTrack(String trackId)`

Sloppy method for finding track by name, Internal use.

Parameters:
trackId - track name

Returns:
RTP track

getTrack

`public RTPTrack getTrack(String trackId)`

Get track by id

Parameters:
trackId - track id

Returns:
RTP track

addTrackId

`public void addTrackId(String seq,
        String trackId)`

Add track

Parameters:
seq - sequence number
trackId - track id

getTrackId

`public String getTrackId(String seq)`

Get track by sequence number

Parameters:

seq - sequence number

Returns:
RTP track

getTrackNames

```
public java.util.List getTrackNames()
```

Get a list of track ids

Returns:
list of track ids

getSession

```
public RTPSession getSession()
```

Get the RTP session

Returns:
RTP session

setSession

```
public void setSession(RTPSession session)
```

Set the RTP session

Parameters:
session - RTP session

getStreamId

```
public String getStreamId()
```

Get the stream id

Returns:
stream id

getStream

```
public IMediaStream getStream()
```

Get the IMediaStream

Returns:
stream (IMediaStream) interface

getAudioTrack

```
public RTPTrack getAudioTrack()
```

Get the most likely audio track

Returns:
RTP track

getVideoTrack

`public RTPTrack `**`getVideoTrack`**`()`

Get the most likely video track

Returns:
RTP track

getStreamTrack

`public RTPTrack `**`getStreamTrack`**`()`

Get the most likely stream track

Returns:
RTP track

addStreamInfo

`public void `**`addStreamInfo`**`(String key,`
`        String value)`

Add a name value pair to the stream info collection

Parameters:
key - name
value - value

getStreamInfo

`public String `**`getStreamInfo`**`(String key)`

Get stream info by name

Parameters:
key - name

Returns:
value

addStreamAttribute

`public void `**`addStreamAttribute`**`(String key,`
`        String value)`

Add a name value pair to the stream attribute collection

Parameters:
key - name
value - value

getVHost

`public `[IVHost]` `**`getVHost`**`()`

Get vhost

> **Returns:**
>> vhost

---

getHost

`public String` **`getHost`**`()`

> Get host

> **Returns:**
>> host

---

setHost

`public void` **`setHost`**`(String host)`

> Set host

> **Parameters:**
>> `host` - host

---

streamExists

`public boolean` **`streamExists`**`()`

> Return true if RTP stream contains a IMediaStream

> **Returns:**
>> true if RTP stream contains a IMediaStream

---

isPublishStreamReady

`public boolean` **`isPublishStreamReady`**`()`

> See if a publishing stream has enough data to start playback

> **Returns:**
>> true, if the stream is ready for playback

---

lockRepeaterStreams

`public void` **`lockRepeaterStreams`**`(java.util.List streamNames)`

> Lock a list of live repeater stream names, Internal use.

> **Parameters:**
>> `streamNames` - stream names

---

unlockRepeaterStreams

`public void` **`unlockRepeaterStreams`**`()`

> Unlock live repeater streams

---

getMediaCasterType

`public String` **`getMediaCasterType`**`()`

Get the media caster stream type for this stream

Returns:

media caster stream type

createStream

```
public boolean createStream(RTPRequestStatus status)
```

Create IMediaStream, Internal use.

Parameters:

status - status

Returns:

true if successful

shutdown

```
public void shutdown(RTPRequestStatus status)
```

shutdown RTP stream, Internal use.

Parameters:

status - status

initProperties

```
public void initProperties(IApplicationInstance appInstance)
```

getAppInstance

```
public IApplicationInstance getAppInstance()
```

Get application instance

Returns:

application instance

isPaused

```
public boolean isPaused()
```

Is stream paused

Returns:

true if stream is paused

getDuration

```
public double getDuration()
```

Get the duration of the stream if video on demand

Returns:

duration in seconds

isResetPlayStream

```
public boolean isResetPlayStream()
```

>
> Is reset stream trigger, Internal use.
>
> **Returns:**
> > true if reset trigger

setResetPlayStream

```
public void setResetPlayStream(boolean doResetPlayStream)
```

>
> Set reset stream trigger
>
> **Parameters:**
> > doResetPlayStream - true if reset trigger

record

```
public RTPStreamPlayResult record(RTPRequestStatus status)
```

>
> Execute record
>
> **Parameters:**
> > status - RTP status
>
> **Returns:**
> > status

record

```
public RTPStreamPlayResult record(RTPRequestStatus status,
        double startTime,
        double stopTime)
```

>
> Execute record
>
> **Parameters:**
> > status - RTP status
> > startTime - playback start time
> > stopTime - playback stop time
>
> **Returns:**
> > status

play

```
public RTPStreamPlayResult play(RTPRequestStatus status)
```

>
> Execute play
>
> **Parameters:**
> > status - RTP status
>
> **Returns:**
> > status

play

```
public RTPStreamPlayResult play(RTPRequestStatus status,
        double startTime,
        double stopTime)
```

Execute play

Parameters:
status - RTP status
startTime - playback start time
stopTime - playback stop time

Returns:
status

attachToWMSSession

```
public void attachToWMSSession(RtmpSessionInfo wmsSessionInfo)
```

Attach to WMS session, Internal use

Parameters:
wmsSessionInfo - session info

detachFromWMSSession

```
public void detachFromWMSSession(RtmpSessionInfo wmsSessionInfo)
```

Detach from WMS session, Internal use.

Parameters:
wmsSessionInfo - session info

pause

```
public void pause(RTPRequestStatus status)
```

Execute pause

Parameters:
status - RTP status

announce

```
public void announce(RTPRequestStatus status)
```

Execute announce command

Parameters:
status - RTP status

isResyncAudioVideoOnSR

```
public boolean isResyncAudioVideoOnSR()
```

Reset audio/video sync on new RTCP packets (not just first packet)

Returns:
> true if resetting audio/video on new RTCP packets

---

setResyncAudioVideoOnSR

`public void **setResyncAudioVideoOnSR**(boolean resyncAudioVideoOnSR)`

> Reset audio/video sync on new RTCP packets (not just first packet)

> **Parameters:**
> > `resyncAudioVideoOnSR` - true if resetting audio/video on new RTCP packets

---

getMetadataPacket

`public byte[] **getMetadataPacket**()`

> Get the onMetadata packet for this RTP stream

> **Returns:**
> > onMetadata packet

---

resetSentMetadataFlag

`public void **resetSentMetadataFlag**()`

> Reset sendMetadata flag

---

checkSendMetadata

`public void **checkSendMetadata**(long adjTimecode,
        RTPTrack rtpTrack)`

> Check to see if we have sent onMetadata event, if not send

> **Parameters:**
> > `adjTimecode` - timecode (milliseconds)

---

extractCodecConfigFromTrackInfo

`public void **extractCodecConfigFromTrackInfo**()`

> Extract codec config information from SDP data

---

getStreamType

`public String **getStreamType**()`

> Get the stream type

> **Returns:**
> > stream type

---

setStreamType

`public void **setStreamType**(String streamType)`

> Set the stream type

Parameters:
>   `streamType` - stream type

---

getAppName

`public String` **`getAppName`**`()`

>   Get the application name

>   **Returns:**
>   >   application name

---

setAppName

`public void` **`setAppName`**`(String appName)`

>   Get the application name

>   **Parameters:**
>   >   `appName` - application name

---

getAppInstanceName

`public String` **`getAppInstanceName`**`()`

>   Get the application instance name

>   **Returns:**
>   >   application instance name

---

setAppInstanceName

`public void` **`setAppInstanceName`**`(String appInstanceName)`

>   Set the application instance name

>   **Parameters:**
>   >   `appInstanceName` - application instance name

---

getStreamExt

`public String` **`getStreamExt`**`()`

>   Get the stream extension

>   **Returns:**
>   >   stream extension

---

setStreamExt

`public void` **`setStreamExt`**`(String streamExt)`

>   Set the stream extension

>   **Parameters:**
>   >   `streamExt` - stream extension

---

getStreamName

`public String **getStreamName**()`

Get stream name

Returns:
stream name

---

setStreamName

`public void **setStreamName**(String streamName)`

Set stream name

Parameters:
streamName - stream name

---

getStreamNameLogging

`public String **getStreamNameLogging**()`

Get the stream name used for logging

Returns:
stream name used for logging

---

setStreamNameLogging

`public void **setStreamNameLogging**(String streamNameLogging)`

Set the stream name used for logging

Parameters:
streamNameLogging - stream name used for logging

---

getStreamSessionId

`public long **getStreamSessionId**()`

Get the stream session id

Returns:
stream session id

---

setStreamSessionId

`public void **setStreamSessionId**(long streamSessionId)`

Set the stream session id

Parameters:
streamSessionId - stream session id

---

getStreamSessionVersion

`public long **getStreamSessionVersion**()`

Get the stream session version

Returns:
>   stream session version

setStreamSessionVersion

```
public void setStreamSessionVersion(long streamSessionVersion)
```

Set the stream session version

Parameters:
>   streamSessionVersion - stream session version

getStreamSessionIp

```
public String getStreamSessionIp()
```

Get the stream session ip

Returns:
>   stream session ip

setStreamSessionIp

```
public void setStreamSessionIp(String streamSessionIp)
```

Set the stream session ip

Parameters:
>   streamSessionIp - stream session ip

isCheckSSRC

```
public boolean isCheckSSRC()
```

Are we checking the ssrc values of each incoming RTP packet

Returns:
>   true if checking

setCheckSSRC

```
public void setCheckSSRC(boolean checkSSRC)
```

Are we checking the ssrc values of each incoming RTP packet

Parameters:
>   checkSSRC - true if checking

isCheckIpAddr

```
public boolean isCheckIpAddr()
```

Are we checking the ip address of each incoming RTP packet

Returns:
>   true if checking ip address of each incoming RTP packet

setCheckIpAddr

public void **setCheckIpAddr**(boolean checkIpAddr)

>   Are we checking the ip address of each incoming RTP packet

>   **Parameters:**
>   checkIpAddr - true if checking ip address of each incoming RTP packet

getUDPTransport

public com.wowza.wms.rtp.transport.IUDPTransport **getUDPTransport**(boolean isMulticast)

>   Get the UDP transport for this stream

>   **Parameters:**
>   isMulticast - true if multicast

>   **Returns:**
>   UDP transport

getAVSyncMethod

public int **getAVSyncMethod**()

>   Get the audio/video sync method. See AVSYNCMETHODS_*

>   **Returns:**
>   audio/video sync method. See AVSYNCMETHODS_*

setAVSyncMethod

public void **setAVSyncMethod**(int avSyncMethod)

>   Set the audio/video sync method. See AVSYNCMETHODS_*

>   **Parameters:**
>   avSyncMethod - audio/video sync method. See AVSYNCMETHODS_*

isAVSyncNonSR

public boolean **isAVSyncNonSR**()

>   Is sync method based on RTCP packets (sender report)

>   **Returns:**
>   true if based in RTCP sender reports

getMaxRTCPWaitTime

public int **getMaxRTCPWaitTime**()

>   Get max time to wait for RTCP sender reports (milliseconds)

>   **Returns:**
>   max time to wait for RTCP sender reports (milliseconds)

setMaxRTCPWaitTime

public void **setMaxRTCPWaitTime**(int maxRTCPWaitTime)

Set max time to wait for RTCP sender reports (milliseconds)

Parameters:
maxRTCPWaitTime - max time to wait for RTCP sender reports (milliseconds)

getStreamInfo

public java.util.Map **getStreamInfo**()

Get all name/value pairs in the stream info collection

Returns:
map of name/value pairs

getStreamAttributes

public java.util.Map **getStreamAttributes**()

Get all name/value pairs in the stream attributes collection

Returns:
map of name/value pairs

avSyncNameToId

public static int **avSyncNameToId**(String avSyncName)

Get audio/video sync id from name

Parameters:
avSyncName - audio/video sync name

Returns:
audio/video sync id, see AVSYNCMETHODS_*

getMPEGTSAudioLanguage

public String **getMPEGTSAudioLanguage**()

setMPEGTSAudioLanguage

public void **setMPEGTSAudioLanguage**(String mpegtsAudioLanguage)

getMPEGTSProgramID

public int **getMPEGTSProgramID**()

setMPEGTSProgramID

`public void` **`setMPEGTSProgramID`**`(int mpegtsProgramId)`

getMPEGTSVideoPID

`public int` **`getMPEGTSVideoPID`**`()`

Get the video PID id if MPEG-TS stream

Returns:
video PID id if MPEG-TS stream

setMPEGTSVideoPID

`public void` **`setMPEGTSVideoPID`**`(int mpegtsVideoPID)`

Set the video PID id if MPEG-TS stream

Parameters:
`mpegtsVideoPID` - video PID id if MPEG-TS stream

getMPEGTSAudioPID

`public int` **`getMPEGTSAudioPID`**`()`

Get the audio PID id if MPEG-TS stream

Returns:
audio PID id if MPEG-TS stream

setMPEGTSAudioPID

`public void` **`setMPEGTSAudioPID`**`(int mpegtsAudioPID)`

Set the audio PID id if MPEG-TS stream

Parameters:
`mpegtsAudioPID` - audio PID id if MPEG-TS stream

isRTSP

`public boolean` **`isRTSP`**`()`

Is this RTP Stream managed by RTSP session

Returns:
true if managed by RTSP session

setRTSP

`public void` **`setRTSP`**`(boolean isRTSP)`

Is this RTP Stream managed by RTSP session

Parameters:
>   isRTSP - true if managed by RTSP session

isRTSPPull

`public boolean isRTSPPull()`

>   Is this RTP Stream managed by RTSP session

>   **Returns:**
>   true if managed by RTSP session

setRTSPPull

`public void setRTSPPull(boolean isRTSPPull)`

>   Is this RTP Stream managed by RTSP session

>   **Parameters:**
>   isRTSPPull - true if managed by RTSP session

getStreamQueryStr

`public String getStreamQueryStr()`

>   Get the stream query string

>   **Returns:**
>   stream query string

setStreamQueryStr

`public void setStreamQueryStr(String streamQueryStr)`

>   Set the stream query string

>   **Parameters:**
>   streamQueryStr - stream query string

isModePublish

`public boolean isModePublish()`

>   Is this a publish stream

>   **Returns:**
>   true if publish stream

isModePlay

`public boolean isModePlay()`

>   Is this a play stream

>   **Returns:**
>   true if play stream

isModeUknown

`public boolean` **`isModeUknown`**`()`

Is the stream mode unknown (publish vs play)

Returns:
true if stream mode is unknown

getOutHost

`public String` **`getOutHost`**`()`

Get the out host

Returns:
out host

setOutHost

`public void` **`setOutHost`**`(String outHost)`

Set out host

Parameters:
`outHost` - out host

idle

`public void` **`idle`**`(org.apache.mina.common.IoSession session,`
`        RtmpResponseMessage resp)`

Process idle event

Parameters:
`session` - io session
`resp` - idle request

getLastPacketsByType

`public AMFPacket[]` **`getLastPacketsByType`**`(IMediaStream localStream)`

Analyzes stream to get information, Internal use.

Parameters:
`localStream` - local stream

Returns:
important packets

getLastPacketsByType

`public AMFPacket[]` **`getLastPacketsByType`**`(IMediaReader localReader,`
`        double startTime)`

Analyzes stream to get information, Internal use.

Parameters:
`localReader` - media reader

startTime - start time

Returns:
important packets

describe

```
public String describe(RTPSession rtspSession,
        RTPRequestStatus status)
```

Execute describe command

Parameters:
rtspSession - RTP session
status - RTP status

Returns:
describe response

switchSetupToMPEGTS

```
public void switchSetupToMPEGTS()
```

Switch a stream to MPEG-TS, Internal use.

describe

```
public String describe(RTPSession rtspSession,
        int isStreamPacketizer,
        RTPRequestStatus status)
```

Execute describe command

Parameters:
rtspSession - RTP session
isStreamPacketizer - true is stream
status - RTP status

Returns:
describe string

getMode

```
public int getMode()
```

Get the current play/publish mode

Returns:
play/publish mode

setMode

```
public void setMode(int mode)
```

Set the play/publish mode

Parameters:
mode - play/publish mode

getTransportMode

`public String` **`getTransportMode`**`()`

Get the transport mode

Returns:
transport mode

setTransportMode

`public void` **`setTransportMode`**`(String transportMode)`

Set the transport mode

Parameters:
`transportMode` - transport mode

getNormalizedNTPTimecode

`public long` **`getNormalizedNTPTimecode`**`(long timecode)`

Turn a millisecond timcode into an NTP timecode

Parameters:
`timecode` - timecode (milliseconds)

Returns:
NTP timecode

isForceRTSPInterleaved

`public boolean` **`isForceRTSPInterleaved`**`()`

True if forcing RTSP interleaved

Returns:
true if forcing RTSP interleaved

setForceRTSPInterleaved

`public void` **`setForceRTSPInterleaved`**`(boolean isForceRTSPInterleaved)`

True if forcing RTSP interleaved

Parameters:
`isForceRTSPInterleaved` - true if forcing RTSP interleaved

getRTPInfo

`public RTPStream.RTPInfo` **`getRTPInfo`**`(double startTime,`
`        int videoSeq,`
`        int audioSeq)`

Get the RTP info

Parameters:
`startTime` - start time

```
videoSeq - video sequence number
audioSeq - audio sequence number
```

Returns:
RTP info string

formatRTPInfo

```
public String formatRTPInfo(long timecode,
        int videoSeq,
        int audioSeq)
```

Format RTP info

Parameters:
```
timecode - timecode
videoSeq - video sequence number
audioSeq - audio sequence number
```

Returns:
RTP Info string

getRTSPSessionName

```
public String getRTSPSessionName()
```

Get session name

Returns:
session name

setRTSPSessionName

```
public void setRTSPSessionName(String rtspSessionName)
```

Set session name

Parameters:
```
rtspSessionName - session name
```

getRTSPSessionDescription

```
public String getRTSPSessionDescription()
```

Get session description

Returns:
session description

setRTSPSessionDescription

```
public void setRTSPSessionDescription(String rtspSessionDescription)
```

Get session description

Parameters:
```
rtspSessionDescription - session description
```

isSendSDESEvents

`public boolean ` **`isSendSDESEvents`**`()`

Send RTCP SDES events

Returns:
true if sending RTCP SDES events

setSendSDESEvents

`public void ` **`setSendSDESEvents`**`(boolean sendSDESEvents)`

Send RTCP SDES events

Parameters:
`sendSDESEvents` - true if sending RTCP SDES events

isMPEGTSOut

`public boolean ` **`isMPEGTSOut`**`()`

Is MPEG-TS out

Returns:
true if MPEG-TS out

setMPEGTSOut

`public void ` **`setMPEGTSOut`**`(boolean isMPEGTSOut)`

Is MPEG-TS out

Parameters:
`isMPEGTSOut` - true if MPEG-TS out

transportFindBestMatch

`public String ` **`transportFindBestMatch`**`(String transport)`

Based on a trasport string from SETUP command find best match

Parameters:
`transport` - trasport string

Returns:
best match

getAutoAllocateInterleavePorts

`public int ` **`getAutoAllocateInterleavePorts`**`()`

isLive

`public boolean ` **`isLive`**`()`

Is live stream

Returns:
> true if live

setLive

`public void **setLive**(boolean isLive)`

Is live stream

Parameters:
> `isLive` - true if live

getMediaReader

`public IMediaReader **getMediaReader**()`

Get media reader if video on demand stream

Returns:
> media reader

getRTSPSessionTimeout

`public int **getRTSPSessionTimeout**()`

Get RTP session timeout (milliseconds)

Returns:
> RTP session timeout (milliseconds)

setRTSPSessionTimeout

`public void **setRTSPSessionTimeout**(int rtspSessionTimeout)`

Set RTP session timeout (milliseconds)

Parameters:
> `rtspSessionTimeout` - RTP session timeout (milliseconds)

getRTSPMaximumPendingWriteBytes

`public int **getRTSPMaximumPendingWriteBytes**()`

Get the maximum number of waiting bytes allow for this RTSP session

Returns:
> maximum number of waiting bytes allow for this RTSP session

setRTSPMaximumPendingWriteBytes

`public void **setRTSPMaximumPendingWriteBytes**(int rtspMaximumPendingWriteBytes)`

Set the maximum number of waiting bytes allow for this RTSP session

Parameters:
> `rtspMaximumPendingWriteBytes` - maximum number of waiting bytes allow for this RTSP session

isTimeout

```
public boolean isTimeout(long currTime,
          int timeout)
```

Is the stream timeout out

Parameters:
currTime - current time
timeout - timeout value

Returns:
true if timed out

touch

```
public void touch()
```

Touch the stream so that it does not timeout

getRTSPBindIpAddress

```
public String getRTSPBindIpAddress()
```

Get the bind RTSP bind IP address

Returns:
bind RTSP bind IP address

setRTSPBindIpAddress

```
public void setRTSPBindIpAddress(String rtspBindIpAddress)
```

Set the bind RTSP bind IP address

Parameters:
rtspBindIpAddress - bind RTSP bind IP address

getRTSPConnectionIpAddress

```
public String getRTSPConnectionIpAddress()
```

Get the connection IP address

Returns:
connection IP address

setRTSPConnectionIpAddress

```
public void setRTSPConnectionIpAddress(String rtspConnectionIpAddress)
```

Set the connection IP address

Parameters:
rtspConnectionIpAddress - connection IP address

getRTSPConnectionAddressType

public String **getRTSPConnectionAddressType**()

> Get the connection address type
>
> **Returns:**
> > connection address type

setRTSPConnectionAddressType

public void **setRTSPConnectionAddressType**(String rtspConnectionAddressType)

> Set the connection address type
>
> **Parameters:**
> > rtspConnectionAddressType - connection address type

getRTSPOriginIpAddress

public String **getRTSPOriginIpAddress**()

> Get the origin IP address
>
> **Returns:**
> > origin IP address

setRTSPOriginIpAddress

public void **setRTSPOriginIpAddress**(String rtspOriginIpAddress)

> Set the origin IP address
>
> **Parameters:**
> > rtspOriginIpAddress - origin IP address

getRTSPOriginAddressType

public String **getRTSPOriginAddressType**()

> Get the origin address type
>
> **Returns:**
> > origin address type

setRTSPOriginAddressType

public void **setRTSPOriginAddressType**(String rtspOriginAddressType)

> Set the origin address type
>
> **Parameters:**
> > rtspOriginAddressType - origin address type

getVODStartTimeTC

public long **getVODStartTimeTC**()

Get the video on demand start time (milliseconds)

Returns:

video on demand start time (milliseconds)

setVODStartTimeTC

public void **setVODStartTimeTC**(long vodStartTimeTC)

Set the video on demand start time (milliseconds)

Parameters:

vodStartTimeTC - video on demand start time (milliseconds)

getVODLastTimeTC

public long **getVODLastTimeTC**()

Get the last timecode (milliseconds) sent for video on demand

Returns:

last timecode (milliseconds) sent for video on demand

setVODLastTimeTC

public void **setVODLastTimeTC**(long vodLastTimeTC)

Set the last timecode (milliseconds) sent for video on demand

Parameters:

vodLastTimeTC - last timecode (milliseconds) sent for video on demand

getVODPlayLen

public long **getVODPlayLen**()

Get the video on demand play duration (milliseconds)

Returns:

video on demand play duration (milliseconds)

setVODPlayLen

public void **setVODPlayLen**(long vodPlayLen)

Set the video on demand play duration (milliseconds)

Parameters:

vodPlayLen - video on demand play duration (milliseconds)

isStreamStarted

public boolean **isStreamStarted**()

Is stream started

Returns:

true if stream has started playback

isRTSPAlwaysUseSDPPorts

public boolean **isRTSPAlwaysUseSDPPorts**()

Force RTSP to use ports in SDP data

Returns:
true if using ports in SDP data

setRTSPAlwaysUseSDPPorts

public void **setRTSPAlwaysUseSDPPorts**(boolean rtspAlwaysUseSDPPorts)

Force RTSP to use ports in SDP data

Parameters:
rtspAlwaysUseSDPPorts - true if using ports in SDP data

putRTSPSessionExtraLine

public void **putRTSPSessionExtraLine**(int location,
        String line)

Add an extra line to the SDP data

Parameters:
location - location of line, see SDPLOCATION_
line - line to add

clearRTSPSessionExtraLines

public void **clearRTSPSessionExtraLines**()

Clear SDP extra lines

getRTSPSessionExtraLines

public java.util.List **getRTSPSessionExtraLines**()

Get extra SDP lines

Returns:
extra SDP lines

getRTPDestination

public RTPDestination **getRTPDestination**()

Get RTP destination

Returns:
RTP destination

setRTPDestination

public void **setRTPDestination**(RTPDestination rtpDestination)

Set RTP destination

Parameters:
>   `rtpDestination` - RTP destination

---

getSDPLang

`public String `**`getSDPLang`**`()`

>   Get the SDP language

>   **Returns:**
>   SDP language

---

setSDPLang

`public void `**`setSDPLang`**`(String sdpLang)`

>   Set the SDP language

>   **Parameters:**
>   `sdpLang` - SDP language

---

isRTPIgnoreProfileLevelId

`public boolean `**`isRTPIgnoreProfileLevelId`**`()`

---

setRTPIgnoreProfileLevelId

`public void `**`setRTPIgnoreProfileLevelId`**`(boolean rtpIgnoreProfileLevelId)`

---

getUDPManagedDeliveryDelay

`public int `**`getUDPManagedDeliveryDelay`**`()`

---

setUDPManagedDeliveryDelay

`public void `**`setUDPManagedDeliveryDelay`**`(int udpManagedDeliveryDelay)`

---

getUDPManagedDeliveryCount

`public int `**`getUDPManagedDeliveryCount`**`()`

---

setUDPManagedDeliveryCount

`public void `**`setUDPManagedDeliveryCount`**`(int udpManagedDeliveryCount)`

isForceMPEGTSOut

```
public boolean isForceMPEGTSOut()
```

setForceMPEGTSOut

```
public void setForceMPEGTSOut(boolean isForceMPEGTSOut)
```

isBlockUDPOut

```
public boolean isBlockUDPOut()
```

setBlockUDPOut

```
public void setBlockUDPOut(boolean blockUDPOut)
```

getMPEGTSAudioBitrate

```
public int getMPEGTSAudioBitrate()
```

setMPEGTSAudioBitrate

```
public void setMPEGTSAudioBitrate(int mpegtsAudioBitrate)
```

getMPEGTSVideoBitrate

```
public int getMPEGTSVideoBitrate()
```

setMPEGTSVideoBitrate

```
public void setMPEGTSVideoBitrate(int mpegtsVideoBitrate)
```

isRTPIgnoreSPropParameterSets

```
public boolean isRTPIgnoreSPropParameterSets()
```

setRTPIgnoreSPropParameterSets

```
public void setRTPIgnoreSPropParameterSets(boolean rtpIgnoreSPropParameterSets)
```

getRTPStreamContext

```
public RTPStreamContext getRTPStreamContext()
```

setRTPStreamContext

```
public void setRTPStreamContext(RTPStreamContext rtpStreamContext)
```

com.wowza.wms.server

com.wowza.wms.server
Interface ICommandInterfaceCommand

public interface **ICommandInterfaceCommand**
extends

Method Summary

boolean	canHandle(CommandInterfaceRequestMessage req)
void	invoke(CommandInterfaceRequestMessage req, CommandInterfaceResponseMessage resp)

Methods

invoke

public void **invoke**(CommandInterfaceRequestMessage req,
        CommandInterfaceResponseMessage resp)

canHandle

public boolean **canHandle**(CommandInterfaceRequestMessage req)

com.wowza.wms.server
Interface ICompilerDirectives

public interface **ICompilerDirectives**
extends

Field Summary

public static final	**RTMPENABLED**
	Value: **true**

Fields

RTMPENABLED

`public static final boolean` **RTMPENABLED**

Constant value: **true**

com.wowza.wms.server
Interface IResponseListener

public interface **IResponseListener**
extends

IResponseListener: Internal use.

Method Summary

void	[onResponseWriteStart](RtmpResponseMessage response)
void	[onResponseWriteStop](RtmpResponseMessage response)

Methods

onResponseWriteStart

public void **onResponseWriteStart**(RtmpResponseMessage response)

onResponseWriteStop

public void **onResponseWriteStop**(RtmpResponseMessage response)

com.wowza.wms.server
Interface IServer

All Known Implementing Classes:
Server

---

public interface **IServer**
extends

IServer: public interface to Server object.

Method Summary

void	**addServerListener**(IServerNotify serverListener) Add server listener
java.util.List	**getAdminInterfaceObjectList**() Get the list of objects exposed through JMX interface
RandomIdGenerator	**getClientIdGenerator**() Get the client id generator for the server
CommandInterfaceCommandHandler	**getCommandInterfaceCommandHandler**() Get the command interface command handler
HostPort	**getCommandInterfaceHostPort**() Get the definition of the command interface
ConnectionCounter	**getConnectionCounter**() Get the server connection counter.
ConnectionCounterSimple	**getConnectionCounter**(int counterIndex) Get the server connection counter for a specific technology (see IVHost.COUNTER_*)
int	**getCoreHandlerPoolSize**() Get the handler core thread pool size.
int	**getCoreTransportPoolSize**() Get the transport core thread pool size.
String	**getDateStarted**() Get the date and time the server was started.
java.util.Properties	**getDynamicLogProperties**() Get the dynamic log properties defined at the server level in conf/log4j.properties
ThreadPool	**getHandlerThreadPool**() Get the server handler thread pool.
IOPerformanceCounter	**getIoPerformanceCounter**() Get the server performance counter.
IOPerformanceCounter	**getIoPerformanceCounter**(int counterIndex) Get the server performance counter for a specific technology (see IVHost.COUNTER_*)

WMSProperties	**getProperties**()	
	Get server level properties collection	
ThreadPool	**getThreadPool**()	
	Get the server handler thread pool.	
String	**getTimeRunning**()	
	Get a formatted String of how long the server has been running.	
double	**getTimeRunningSeconds**()	
	Get time running in seconds	
ThreadPool	**getTransportThreadPool**()	
	Get the server transport thread pool.	
com.wowza.wms.transport.udp.UDPPortManager	**getUDPPortManager**()	
	Get the UDP port manager which manages the allocation of incoming UDP port binding to be sure there are not port conflicts	
com.wowza.wms.transport.udp.UDPPortSharingManager	**getUDPPortSharingManager**()	
	Get the UDP port sharing manager.	
String[]	**getUserAgents**()	
	Get a pipe "|" delimited list of user agents that the server recognizes as RTMPT client.	
String	**getVersion**()	
	Get server version number.	
VHostList	**getVHostList**()	
	Returns the interface to the VHostList for the server	
boolean	**isAcceptWOWZConnections**()	
	If true, WOWZ connections will use the WOWZ protocol.	
boolean	**isDynamicLogContextLoaded**(String logContext)	
	Returns true of the given dynamic log context is already loaded.	
boolean	**isInitiateWOWZConnections**()	
	If true, NetConnection attempts will use the WOWZ protocol when possible.	
boolean	**isSuspended**()	
	Is the server current suspended	
String	**readConfig**(String sName)	
	Method to read xml config file..	
void	**reloadVHostConfig**()	
	Reload the VHosts.xml file.	
void	**removeServerListener**(IServerNotify serverListener)	
	Remove server listener	
void	**setAcceptWOWZConnections**(boolean acceptWOWZConnections)	
	If true, WOWZ connections will use the WOWZ protocol.	
void	**setCommandInterfaceHostPort**(HostPort commandInterfaceHostPort)	
	Set the definition for the command interface.	

void	**setCoreHandlerPoolSize**(int corePoolSize) Set the handler core thread pool size.	
void	**setCoreTransportPoolSize**(int corePoolSize) Set the transport core thread pool size.	
void	**setDynamicLogProperties**(java.util.Properties dynamicLogProperties) Set the dynamic log properties set at the server level	
void	**setInitiateWOWZConnections**(boolean initiateWOWZConnections) If true, NetConnection attempts will use the WOWZ protocol when possible.	
void	**setUserAgents**(String[] userAgents) Set a pipe "|" delimited list of user agents that the server recognizes as RTMPT client.	
void	**startCommandInterface**() Start the command interface as defined in Server.xml.	
void	**startVHost**(String vhostName) Start a vHost by name.	
void	**startVHosts**() Start all vHosts	
void	**stopAdminAgent**() Stop the JMX interface	
void	**stopCommandInterface**() Stop the command interface as defined in Server.xml.	
void	**stopVHost**(String vhostName) Stop a vHost by name.	
void	**stopVHosts**() Stop all vHosts	
void	**suspendAllVHosts**() Suspend all virtual hosts (Calls IVHost.suspendAllHostPorts for each vhost)	
void	**suspendServer**() Suspend all virtual hosts and the command interface	
void	**unbindAllVHosts**() Unbind all virtual hosts (Calls IVHost.unbindAllHostPorts for each vhost)	
boolean	**writeConfig**(String sName, String data) Method to write xml config file..	

Methods

startCommandInterface

public void **startCommandInterface**()

Start the command interface as defined in Server.xml. The command interface is used by shutdown.sh script to stop the server. It is also used by ant task to stop and start the server on build events.

stopCommandInterface

public void **stopCommandInterface**()

Stop the command interface as defined in Server.xml. The command interface is used by shutdown.sh script to stop the server. It is also used by ant task to stop and start the server on build events.

getVersion

public String **getVersion**()

Get server version number.

Returns:
server version number

reloadVHostConfig

public void **reloadVHostConfig**()

Reload the VHosts.xml file. This method can be invoked through the JMX interface to manage vHosts while the server is running.

stopVHost

public void **stopVHost**(String vhostName)

Stop a vHost by name.

Parameters:
vhostName - vHost name

stopVHosts

public void **stopVHosts**()

Stop all vHosts

startVHost

public void **startVHost**(String vhostName)

Start a vHost by name.

Parameters:
vhostName - vHost name

startVHosts

public void **startVHosts**()

Start all vHosts

getIoPerformanceCounter

public [IOPerformanceCounter](#) **getIoPerformanceCounter**()

Get the server performance counter.

Returns:
io performance counter

---

getIoPerformanceCounter

public `IOPerformanceCounter` **getIoPerformanceCounter**(int counterIndex)

Get the server performance counter for a specific technology (see IVHost.COUNTER_*)

Parameters:
counterIndex - counter index (see IVHost.COUNTER_*)

Returns:
io performance counter

---

getConnectionCounter

public `ConnectionCounter` **getConnectionCounter**()

Get the server connection counter.

Returns:
connection counter

---

getConnectionCounter

public ConnectionCounterSimple **getConnectionCounter**(int counterIndex)

Get the server connection counter for a specific technology (see IVHost.COUNTER_*)

Parameters:
counterIndex - counter index (see IVHost.COUNTER_*)

Returns:
connection counter

---

getDateStarted

public String **getDateStarted**()

Get the date and time the server was started.

Returns:
date and time the server was started

---

getTimeRunning

public String **getTimeRunning**()

Get a formatted String of how long the server has been running.

Returns:
formatted String of how long the server has been running

---

getTimeRunningSeconds

public double **getTimeRunningSeconds**()

Get time running in seconds

Returns:

time running in seconds

getCommandInterfaceHostPort

`public HostPort getCommandInterfaceHostPort()`

Get the definition of the command interface

Returns:

host port definition of command interface

setCommandInterfaceHostPort

`public void setCommandInterfaceHostPort(HostPort commandInterfaceHostPort)`

Set the definition for the command interface.

Parameters:

commandInterfaceHostPort - host port definition of command interface

getUserAgents

`public String[] getUserAgents()`

Get a pipe "|" delimited list of user agents that the server recognizes as RTMPT client.

Returns:

pipe "|" delimited list of user agents that the server recognizes as RTMPT client

setUserAgents

`public void setUserAgents(String[] userAgents)`

Set a pipe "|" delimited list of user agents that the server recognizes as RTMPT client.

Parameters:

userAgents - pipe "|" delimited list of user agents that the server recognizes as RTMPT client

addServerListener

`public void addServerListener(IServerNotify serverListener)`

Add server listener

Parameters:

serverListener - server listener

removeServerListener

`public void removeServerListener(IServerNotify serverListener)`

Remove server listener

Parameters:

serverListener - server listener

getAdminInterfaceObjectList

`public java.util.List` **`getAdminInterfaceObjectList`**`()`

Get the list of objects exposed through JMX interface

Returns:
list of objects exposed through JMX interface

getCoreTransportPoolSize

`public int` **`getCoreTransportPoolSize`**`()`

Get the transport core thread pool size.

Returns:
default core thread pool size

setCoreTransportPoolSize

`public void` **`setCoreTransportPoolSize`**`(int corePoolSize)`

Set the transport core thread pool size.

Parameters:
`corePoolSize` - core thread pool size

getCoreHandlerPoolSize

`public int` **`getCoreHandlerPoolSize`**`()`

Get the handler core thread pool size.

Returns:
default core thread pool size

setCoreHandlerPoolSize

`public void` **`setCoreHandlerPoolSize`**`(int corePoolSize)`

Set the handler core thread pool size.

Parameters:
`corePoolSize` - core thread pool size

getThreadPool

`public` [ThreadPool] **`getThreadPool`**`()`

Get the server handler thread pool. Same as getHandlerThreadPool.

Returns:
server handler thread pool

getTransportThreadPool

`public` [ThreadPool] **`getTransportThreadPool`**`()`

Get the server transport thread pool. This thread pool is used to read/write data from the transports sockets.

> **Returns:**
> server transport thread pool

---

getHandlerThreadPool

```
public ThreadPool getHandlerThreadPool()
```

Get the server handler thread pool. This thread pool is used to process the incoming events.

> **Returns:**
> server handler thread pool

---

getProperties

```
public WMSProperties getProperties()
```

Get server level properties collection

> **Returns:**
> server level properties collection

---

getClientIdGenerator

```
public RandomIdGenerator getClientIdGenerator()
```

Get the client id generator for the server

> **Returns:**
> client id generator for the server

---

getDynamicLogProperties

```
public java.util.Properties getDynamicLogProperties()
```

Get the dynamic log properties defined at the server level in conf/log4j.properties

> **Returns:**
> dynamic log properties defined at the server level

---

setDynamicLogProperties

```
public void setDynamicLogProperties(java.util.Properties dynamicLogProperties)
```

Set the dynamic log properties set at the server level

> **Parameters:**
> `dynamicLogProperties` - dynamic log properties defined at the server level

---

isDynamicLogContextLoaded

```
public boolean isDynamicLogContextLoaded(String logContext)
```

Returns true of the given dynamic log context is already loaded. If not loaded it will return false and add it to the a Set of loaded log context. Log context is [VHost].[Application].[AppInstance]

---

getVHostList

public [VHostList](#) **getVHostList**()

> Returns the interface to the VHostList for the server
>
> #### Returns:
> > vhostList

suspendAllVHosts

public void **suspendAllVHosts**()

> Suspend all virtual hosts (Calls IVHost.suspendAllHostPorts for each vhost)

unbindAllVHosts

public void **unbindAllVHosts**()

> Unbind all virtual hosts (Calls IVHost.unbindAllHostPorts for each vhost)

suspendServer

public void **suspendServer**()

> Suspend all virtual hosts and the command interface

isSuspended

public boolean **isSuspended**()

> Is the server current suspended

stopAdminAgent

public void **stopAdminAgent**()

> Stop the JMX interface

getUDPPortManager

public com.wowza.wms.transport.udp.UDPPortManager **getUDPPortManager**()

> Get the UDP port manager which manages the allocation of incoming UDP port binding to be sure there are not port conflicts
>
> #### Returns:
> > UDP port manager

getUDPPortSharingManager

public com.wowza.wms.transport.udp.UDPPortSharingManager **getUDPPortSharingManager**()

> Get the UDP port sharing manager.
>
> #### Returns:
> > UDP port sharing manager

readConfig

```
public String readConfig(String sName)
```

> Method to read xml config file..

writeConfig

```
public boolean writeConfig(String sName,
          String data)
```

> Method to write xml config file..

getCommandInterfaceCommandHandler

```
public CommandInterfaceCommandHandler getCommandInterfaceCommandHandler()
```

> Get the command interface command handler
>
> **Returns:**
> > command interface command handler

isAcceptWOWZConnections

```
public boolean isAcceptWOWZConnections()
```

> If true, WOWZ connections will use the WOWZ protocol. If false, WOWZ connection attempts will fall back to RTMP.
>
> **Returns:**
> > true, WOWZ connections will use the WOWZ protocol

setAcceptWOWZConnections

```
public void setAcceptWOWZConnections(boolean acceptWOWZConnections)
```

> If true, WOWZ connections will use the WOWZ protocol. If false, WOWZ connection attempts will fall back to RTMP.
>
> **Parameters:**
> > acceptWOWZConnections - true, WOWZ connections will use the WOWZ protocol

isInitiateWOWZConnections

```
public boolean isInitiateWOWZConnections()
```

> If true, NetConnection attempts will use the WOWZ protocol when possible.
>
> **Returns:**
> > true, NetConnection attempts will use the WOWZ protocol when possible.

setInitiateWOWZConnections

```
public void setInitiateWOWZConnections(boolean initiateWOWZConnections)
```

> If true, NetConnection attempts will use the WOWZ protocol when possible.
>
> **Parameters:**
> > initiateWOWZConnections - true, NetConnection attempts will use the WOWZ protocol when possible.

com.wowza.wms.server
Interface IServerNotify

All Subinterfaces:
> IServerNotify2

---

public interface **IServerNotify**
extends

IServerNotify: listener interface. Configured by adding class entries definitions to Server.xml.Startup order is: [constructor]; onServerConfigLoaded, onServerCreate, onServerInit Shutdown order is: onServerShutdownStart, onServerShutdownComplete, [exit]

Method Summary

void	**onServerCreate**(IServer server) Triggered when server object is first created.
void	**onServerInit**(IServer server) Triggered when server initialization is complete and all VHosts have been started
void	**onServerShutdownComplete**(IServer server) Triggered at the end of server shutdown
void	**onServerShutdownStart**(IServer server) Triggered at the beginning of server shutdown

---

Methods

onServerCreate

public void **onServerCreate**(IServer server)

> Triggered when server object is first created.

> **Parameters:**
> server - server object

---

onServerInit

public void **onServerInit**(IServer server)

> Triggered when server initialization is complete and all VHosts have been started

> **Parameters:**
> server - server object

---

onServerShutdownStart

public void **onServerShutdownStart**(IServer server)

> Triggered at the beginning of server shutdown

Parameters:

> server - server object

onServerShutdownComplete

public void **onServerShutdownComplete**(<u>IServer</u> server)

Triggered at the end of server shutdown

Parameters:

> server - server object

com.wowza.wms.server
Interface IServerNotify2

All Superinterfaces:
> IServerNotify

---

public interface **IServerNotify2**
extends IServerNotify

IServerNotify2: listener interface. Configured by adding class entries definitions to Server.xml.Startup order is: [constructor]; onServerConfigLoaded, onServerCreate, onServerInit Shutdown order is: onServerShutdownStart, onServerShutdownComplete, [exit]

Method Summary

void	**onServerConfigLoaded**(IServer server) Triggered when server configuration is loaded

Methods inherited from interface `com.wowza.wms.server.IServerNotify`
onServerCreate, onServerInit, onServerShutdownComplete, onServerShutdownStart

Methods

onServerConfigLoaded

public void **onServerConfigLoaded**(IServer server)

> Triggered when server configuration is loaded

> **Parameters:**
> > server - server object

com.wowza.wms.server
Class Server

```
java.lang.Object
   |
   +-com.wowza.wms.server.Server
```

All Implemented Interfaces:
>   IServer

---

public class **Server**
extends Object
implements IServer

Nested Class Summary

class	**Server.TranscoderPollingTracker** Server.TranscoderPollingTracker

Field Summary

public	**debugWOWZProtocol**
public static	**logNotifier**

Constructor Summary

public	**Server**()

Method Summary

void	**addServerListener**(IServerNotify serverListener)
static void	**decodeS**(String[] ins) Deprecated.
static boolean	**decodeSS**(String in) Deprecated.
String	**decodeStorageDir**(IVHost vhost, String storageDir)
void	**doWatchdog**()
static String	**fS**(byte[] kiIn, String p) Deprecated.
com.wowza.wms.admin.A dminAgent	**getAdminAgent**()
String	**getAdminGUID**()

java.util.List	getAdminInterfaceObjectList()
RandomIdGenerator	getClientIdGenerator()
int	getClientIdGeneratorRecycleDelaySize()
int	getClientIdGeneratorRecycleSize()
long	getClientIdGeneratorTimeout()
Object	getCommandInterface()
CommandInterfaceCommandHandler	getCommandInterfaceCommandHandler()
HostPort	getCommandInterfaceHostPort()
long	getCommittedVirtuallMemory()
ConnectionCounter	getConnectionCounter()
ConnectionCounterSimple	getConnectionCounter(int counterIndex)
IConnectionValidator	getConnectionValidator()
int	getCoreHandlerPoolSize()
int	getCoreTransportPoolSize()
int	getCryptoPoolActiveCount()
int	getCryptoPoolMaxSize()
long	getCurrentHeapSize()
String	getDateStarted()
java.util.Properties	getDynamicLogProperties()
String	getGUID()
ThreadPool	getHandlerThreadPool()
static Server	getInstance()
IOPerformanceCounter	getIoPerformanceCounter()
IOPerformanceCounter	getIoPerformanceCounter(int counterIndex)

JMXRemoteConfig	getJmxRemoteConfig()
LicenseCounter	getLicenseCounter(int index)
Server.LicenseSessionTracker	getLicenseTracker(int index)
ILicenseValidator	getLicenseValidator()
long	getLiveThreads()
long	getMaxHeapSize()
long	getPeakThreads()
WMSProperties	getProperties()
boolean[]	getProtocolUsage()
Server.ProtocolUsageSessionTracker	getProtocolUsageTracker()
String	getServerGUID()
String	getSessionGUID()
ThreadPool	getThreadPool()
String	getTimeRunning()
double	getTimeRunningSeconds()
ThreadPool	getTransportThreadPool()
com.wowza.wms.transport.udp.UDPPortManager	getUDPPortManager()
com.wowza.wms.transport.udp.UDPPortSharingManager	getUDPPortSharingManager()
String[]	getUserAgents()
String	getVersion()
VHostList	getVHostList()
boolean	isAcceptWOWZConnections()
boolean	isDynamicLogContextLoaded(String logContext)

boolean	**isInitiateWOWZConnections**()	
boolean	**isSuspended**()	
boolean	**isVHostRunning**(String name)	
static void	**main**(String[] args)	
void	**onNewVHost**(IVHost vhost)	
String	**readConfig**(String sName)	
static String	**readXMLConfig**(String sPath)	
void	**registerLiveStreamTranscoder**(ILiveStreamTranscoder liveStreamTranscoder, byte[] license)	
void	**reloadVHostConfig**()	
void	**removeServerListener**(IServerNotify serverListener)	
void	**setAcceptWOWZConnections**(boolean acceptWOWZConnections)	
void	**setCommandInterface**(Object commandInterface)	
void	**setCommandInterfaceHostPort**(HostPort commandInterfaceHostPort)	
void	**setCoreHandlerPoolSize**(int corePoolSize)	
void	**setCoreTransportPoolSize**(int corePoolSize)	
void	**setDynamicLogProperties**(java.util.Properties dynamicLogProperties)	
void	**setInitiateWOWZConnections**(boolean initiateWOWZConnections)	
void	**setIoPerformanceCounter**(IOPerformanceCounter ioPerformanceCounter)	
void	**setUserAgents**(String[] userAgents)	
static void	**start**()	
void	**startCommandInterface**()	
void	**startServer**()	
void	**startVHost**(String vhostName)	
void	**startVHosts**()	

void		`stopAdminAgent()`
void		`stopCommandInterface()`
void		`stopServer()`
void		`stopVHost(String vhostName)`
void		`stopVHosts()`
void		`suspendAllVHosts()`
void		`suspendCommandInterface()`
void		`suspendServer()`
void		`unbindAllVHosts()`
void		`unregisterLiveStreamTranscoder(ILiveStreamTranscoder liveStreamTranscoder, byte[] license)`
`IOPerformanceCounter`		`updateIOPerformance()`
void		`updateLoggingDuration()`
boolean		`writeConfig(String sName, String data)`
static boolean		`writeXMLConfig(String sPath, String data)`

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `com.wowza.wms.server.IServer`

`addServerListener`, `getAdminInterfaceObjectList`, `getClientIdGenerator`, `getCommandInterfaceCommandHandler`, `getCommandInterfaceHostPort`, `getConnectionCounter`, `getConnectionCounter`, `getCoreHandlerPoolSize`, `getCoreTransportPoolSize`, `getDateStarted`, `getDynamicLogProperties`, `getHandlerThreadPool`, `getIoPerformanceCounter`, `getIoPerformanceCounter`, `getProperties`, `getThreadPool`, `getTimeRunning`, `getTimeRunningSeconds`, `getTransportThreadPool`, `getUDPPortManager`, `getUDPPortSharingManager`, `getUserAgents`, `getVersion`, `getVHostList`, `isAcceptWOWZConnections`, `isDynamicLogContextLoaded`, `isInitiateWOWZConnections`, `isSuspended`, `readConfig`, `reloadVHostConfig`, `removeServerListener`, `setAcceptWOWZConnections`, `setCommandInterfaceHostPort`, `setCoreHandlerPoolSize`, `setCoreTransportPoolSize`, `setDynamicLogProperties`, `setInitiateWOWZConnections`, `setUserAgents`, `startCommandInterface`, `startVHost`, `startVHosts`, `stopAdminAgent`, `stopCommandInterface`, `stopVHost`, `stopVHosts`, `suspendAllVHosts`, `suspendServer`, `unbindAllVHosts`, `writeConfig`

Fields

logNotifier

```
public static com.wowza.wms.logging.ILogNotify logNotifier
```

debugWOWZProtocol

```
public boolean debugWOWZProtocol
```

Constructors

Server

```
public Server()
```

Methods

getInstance

```
public static Server getInstance()
```

getAdminAgent

```
public com.wowza.wms.admin.AdminAgent getAdminAgent()
```

main

```
public static void main(String[] args)
```

start

```
public static void start()
```

stopServer

```
public void stopServer()
```

stopAdminAgent

```
public void stopAdminAgent()
```

isVHostRunning

```
public boolean isVHostRunning(String name)
```

suspendCommandInterface

```
public void suspendCommandInterface()
```

startCommandInterface

```
public void startCommandInterface()
```

stopCommandInterface

```
public void stopCommandInterface()
```

startServer

```
public void startServer()
```

getVersion

```
public String getVersion()
```

reloadVHostConfig

```
public void reloadVHostConfig()
```

stopVHost

```
public void stopVHost(String vhostName)
```

stopVHosts

```
public void stopVHosts()
```

decodeStorageDir

```
public String decodeStorageDir(IVHost vhost,
        String storageDir)
```

startVHost

```
public void startVHost(String vhostName)
```

isSuspended

```
public boolean isSuspended()
```

suspendServer

```
public void suspendServer()
```

suspendAllVHosts

```
public void suspendAllVHosts()
```

unbindAllVHosts

```
public void unbindAllVHosts()
```

startVHosts

```
public void startVHosts()
```

doWatchdog

```
public void doWatchdog()
```

updateIOPerformance

```
public IOPerformanceCounter updateIOPerformance()
```

getIoPerformanceCounter

public IOPerformanceCounter **getIoPerformanceCounter**()

getIoPerformanceCounter

public IOPerformanceCounter **getIoPerformanceCounter**(int counterIndex)

setIoPerformanceCounter

public void **setIoPerformanceCounter**(IOPerformanceCounter ioPerformanceCounter)

getConnectionCounter

public ConnectionCounter **getConnectionCounter**()

getConnectionCounter

public ConnectionCounterSimple **getConnectionCounter**(int counterIndex)

getConnectionValidator

public IConnectionValidator **getConnectionValidator**()

getLicenseValidator

public ILicenseValidator **getLicenseValidator**()

onNewVHost

public void **onNewVHost**(IVHost vhost)

getDateStarted

public String **getDateStarted**()

getTimeRunning

public String **getTimeRunning**()

getTimeRunningSeconds

```
public double getTimeRunningSeconds()
```

getCommandInterfaceHostPort

```
public HostPort getCommandInterfaceHostPort()
```

setCommandInterfaceHostPort

```
public void setCommandInterfaceHostPort(HostPort commandInterfaceHostPort)
```

getCommandInterface

```
public Object getCommandInterface()
```

setCommandInterface

```
public void setCommandInterface(Object commandInterface)
```

getUserAgents

```
public String[] getUserAgents()
```

setUserAgents

```
public void setUserAgents(String[] userAgents)
```

updateLoggingDuration

```
public void updateLoggingDuration()
```

addServerListener

```
public void addServerListener(IServerNotify serverListener)
```

removeServerListener

```
public void removeServerListener(IServerNotify serverListener)
```

getJmxRemoteConfig

```
public JMXRemoteConfig getJmxRemoteConfig()
```

getAdminInterfaceObjectList

```
public java.util.List getAdminInterfaceObjectList()
```

getCoreTransportPoolSize

```
public int getCoreTransportPoolSize()
```

setCoreTransportPoolSize

```
public void setCoreTransportPoolSize(int corePoolSize)
```

getCoreHandlerPoolSize

```
public int getCoreHandlerPoolSize()
```

setCoreHandlerPoolSize

```
public void setCoreHandlerPoolSize(int corePoolSize)
```

getThreadPool

```
public ThreadPool getThreadPool()
```

getTransportThreadPool

```
public ThreadPool getTransportThreadPool()
```

getHandlerThreadPool

```
public ThreadPool getHandlerThreadPool()
```

getProperties

public WMSProperties **getProperties**()

getClientIdGenerator

public RandomIdGenerator **getClientIdGenerator**()

getDynamicLogProperties

public java.util.Properties **getDynamicLogProperties**()

setDynamicLogProperties

public void **setDynamicLogProperties**(java.util.Properties dynamicLogProperties)

isDynamicLogContextLoaded

public boolean **isDynamicLogContextLoaded**(String logContext)

getVHostList

public VHostList **getVHostList**()

getSessionGUID

public String **getSessionGUID**()

getServerGUID

public String **getServerGUID**()

getGUID

public String **getGUID**()

getAdminGUID

```
public String getAdminGUID()
```

getUDPPortSharingManager

```
public com.wowza.wms.transport.udp.UDPPortSharingManager getUDPPortSharingManager()
```

getUDPPortManager

```
public com.wowza.wms.transport.udp.UDPPortManager getUDPPortManager()
```

getCryptoPoolMaxSize

```
public int getCryptoPoolMaxSize()
```

getCryptoPoolActiveCount

```
public int getCryptoPoolActiveCount()
```

getLiveThreads

```
public long getLiveThreads()
```

getPeakThreads

```
public long getPeakThreads()
```

getCurrentHeapSize

```
public long getCurrentHeapSize()
```

getMaxHeapSize

```
public long getMaxHeapSize()
```

getCommittedVirtuallMemory

```
public long getCommittedVirtuallMemory()
```

readConfig

```
public String readConfig(String sName)
```

writeConfig

```
public boolean writeConfig(String sName,
        String data)
```

readXMLConfig

```
public static String readXMLConfig(String sPath)
```

writeXMLConfig

```
public static boolean writeXMLConfig(String sPath,
        String data)
```

getClientIdGeneratorTimeout

```
public long getClientIdGeneratorTimeout()
```

getClientIdGeneratorRecycleSize

```
public int getClientIdGeneratorRecycleSize()
```

getClientIdGeneratorRecycleDelaySize

```
public int getClientIdGeneratorRecycleDelaySize()
```

getCommandInterfaceCommandHandler

```
public CommandInterfaceCommandHandler getCommandInterfaceCommandHandler()
```

getLicenseCounter

```
public LicenseCounter getLicenseCounter(int index)
```

getLicenseTracker

```
public Server.LicenseSessionTracker getLicenseTracker(int index)
```

decodeS

```
public static void decodeS(String[] ins)
```

> Deprecated.

decodeSS

```
public static boolean decodeSS(String in)
```

> Deprecated.

fS

```
public static String fS(byte[] kiIn,
        String p)
```

> Deprecated.

registerLiveStreamTranscoder

```
public void registerLiveStreamTranscoder(ILiveStreamTranscoder liveStreamTranscoder,
        byte[] license)
```

unregisterLiveStreamTranscoder

```
public void unregisterLiveStreamTranscoder(ILiveStreamTranscoder liveStreamTranscoder,
        byte[] license)
```

getProtocolUsage

```
public boolean[] getProtocolUsage()
```

getProtocolUsageTracker

```
public Server.ProtocolUsageSessionTracker getProtocolUsageTracker()
```

isAcceptWOWZConnections

```
public boolean isAcceptWOWZConnections()
```

setAcceptWOWZConnections

```
public void setAcceptWOWZConnections(boolean acceptWOWZConnections)
```

isInitiateWOWZConnections

```
public boolean isInitiateWOWZConnections()
```

setInitiateWOWZConnections

```
public void setInitiateWOWZConnections(boolean initiateWOWZConnections)
```

isAcceptWOWZConnections

```
public boolean isAcceptWOWZConnections()
```

com.wowza.wms.server
Class Server.TranscoderPollingTracker

```
java.lang.Object
    |
    +-com.wowza.wms.server.Server.TranscoderPollingTracker
```

public class **Server.TranscoderPollingTracker**
extends Object

Methods inherited from class `java.lang.Object`
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Package
com.wowza.wms.sharedobject

com.wowza.wms.sharedobject
Interface ISharedObject

All Known Implementing Classes:
> [SharedObject](#)

---

public interface **ISharedObject**
extends

ISharedObject: public interface to SharedObject class.

Field Summary

public static final	**FILEEXTENSION** Value: **rso**
public static final	**SHAREDOBJECT_CMD_CONNECT** shared object command: connect Value: **1**
public static final	**SHAREDOBJECT_CMD_CONNECTSUCCESS** shared object command: clear Value: **11**
public static final	**SHAREDOBJECT_CMD_DELETE** shared object command: delete Value: **10**
public static final	**SHAREDOBJECT_CMD_DISCONNECT** shared object command: disconnect Value: **2**
public static final	**SHAREDOBJECT_CMD_ERROR** shared object command: error Value: **7**
public static final	**SHAREDOBJECT_CMD_SEND** shared object command: send Value: **6**
public static final	**SHAREDOBJECT_CMD_SETVALUE** shared object command: setvalue Value: **3**
public static final	**SHAREDOBJECT_STATUS_CHANGE** shared object status: change Value: **4**
public static final	**SHAREDOBJECT_STATUS_CLEAR** shared object status: clear Value: **8**

public static final	SHAREDOBJECT_STATUS_DELETE	
	shared object status: delete Value: **9**	
public static final	SHAREDOBJECT_STATUS_SUCCESS	
	shared object status: success Value: **5**	

Method Summary

void	acquire() Increment the reference count to this shared object.
void	addClient(IClient client) Add a client to this shared object.
void	addSlotListener(ISharedObjectSlotNotify slotListener) Add a slot listener.
void	clear() Clear all properties from a shared object
void	close() Force close this shared object (not implemented)
boolean	containsProperty(String slotName) Returns true is slot/property name exists
boolean	containsSlot(String slotName) Returns true is slot/property name exists
void	deleteSlot(IClient client, String slotName) Remove a slot (property)
void	deleteSlot(String slotName) Remove slot (property)
void	disconnect(IClient client) Disconnect client from shared object.
void	flush() Flush (write to disk) shared object
java.util.List	getClients() Get a list of client that are connected to this shared object.
String	getName() Get shared object name
ISharedObjects	getParent() Get the shared object container to which this shared object belongs.
AMFData	getProperty(String slotName) Get slot (property) value.
int	getRefCount() Get the current reference (clients) connected to this shared object.

ISharedObjectSlot	**getSlot**(String name)	
	Get ISharedObjectSlot interface to a slot (property) by name	
java.util.List	**getSlotNames**()	
	Get a list of slot (property) names	
java.util.List	**getSlots**()	
	Get a list of active slots	
String	**getStorageDir**()	
	Get path used to store shared object.	
int	**getVersion**()	
	Get the internval version number.	
boolean	**isClient**(IClient client)	
	Is this client connected to shared object	
boolean	**isPersistent**()	
	Is this shared object being persisted.	
void	**lock**()	
	Lock a shared object for write access	
int	**purge**(int version)	
	Purge all deleted properties older than the version number	
void	**putSlot**(String name, ISharedObjectSlot slot)	
	Add a new slot (property) to a shared object.	
void	**release**()	
	Descrement the reference count to this shared object.	
void	**removeClient**(IClient client)	
	Remove a client from this shared object.	
void	**removeSlotListener**(ISharedObjectSlotNotify slotListener)	
	Remove slot listener	
void	**send**(String handlerName)	
	Call client side handler attached to shared object (no parameters).	
void	**send**(String handlerName, Object[] params)	
	Call client side handler attached to shared object.	
void	**setName**(String name)	
	Set shared object name	
void	**setPersistent**(boolean isPersistent)	
	Set is shared object persisted.	
void	**setProperty**(String slotName, AMFData data)	
	Set slot (property) value as AMFData object.	
void	**setProperty**(String slotName, boolean value)	
	Set slot (property) value as a boolean value (will be wrapped in an AMFDataItem object)	
void	**setProperty**(String slotName, java.util.Date value)	
	Set slot (property) value as a date value (will be wrapped in an AMFDataItem object)	

void		**setProperty**(String slotName, double value) Set slot (property) value as a double value (will be wrapped in an AMFDataItem object)
void		**setProperty**(String slotName, int value) Set slot (property) value as a int value (will be wrapped in an AMFDataItem object)
void		**setProperty**(String slotName, long value) Set slot (property) value as a long value (will be wrapped in an AMFDataItem object)
void		**setProperty**(String slotName, String value) Set slot (property) value as a string value (will be wrapped in an AMFDataItem object)
void		**setStorageDir**(String storageDir) Set path used to store shared object.
void		**setVersion**(int version) Set the internal version number.
int		**size**() Get the number of active slot (properties).
void		**unlock**() Unlock a shared object for write access
void		**writeDeleteError**(**IClient** client, String soName, boolean isPersistent, String slotName, String errorMsg) Write an delete error message back to the client
void		**writeSetValueError**(**IClient** client, String soName, boolean isPersistent, String slotName, String errorMsg) Write an set value error message back to the client

Fields

FILEEXTENSION

```
public static final java.lang.String FILEEXTENSION
```

Constant value: **rso**

SHAREDOBJECT_CMD_CONNECT

```
public static final byte SHAREDOBJECT_CMD_CONNECT
```

shared object command: connect
Constant value: **1**

SHAREDOBJECT_CMD_DISCONNECT

```
public static final byte SHAREDOBJECT_CMD_DISCONNECT
```

shared object command: disconnect
Constant value: **2**

SHAREDOBJECT_CMD_SETVALUE

`public static final byte` **`SHAREDOBJECT_CMD_SETVALUE`**

shared object command: setvalue
Constant value: **3**

SHAREDOBJECT_CMD_SEND

`public static final byte` **`SHAREDOBJECT_CMD_SEND`**

shared object command: send
Constant value: **6**

SHAREDOBJECT_CMD_ERROR

`public static final byte` **`SHAREDOBJECT_CMD_ERROR`**

shared object command: error
Constant value: **7**

SHAREDOBJECT_CMD_DELETE

`public static final byte` **`SHAREDOBJECT_CMD_DELETE`**

shared object command: delete
Constant value: **10**

SHAREDOBJECT_CMD_CONNECTSUCCESS

`public static final byte` **`SHAREDOBJECT_CMD_CONNECTSUCCESS`**

shared object command: clear
Constant value: **11**

SHAREDOBJECT_STATUS_CHANGE

`public static final byte` **`SHAREDOBJECT_STATUS_CHANGE`**

shared object status: change
Constant value: **4**

SHAREDOBJECT_STATUS_SUCCESS

`public static final byte` **`SHAREDOBJECT_STATUS_SUCCESS`**

shared object status: success
Constant value: **5**

SHAREDOBJECT_STATUS_CLEAR

`public static final byte` **`SHAREDOBJECT_STATUS_CLEAR`**

shared object status: clear
Constant value: **8**

SHAREDOBJECT_STATUS_DELETE

`public static final byte` **`SHAREDOBJECT_STATUS_DELETE`**

shared object status: delete
Constant value: **9**

Methods

getSlotNames

```
public java.util.List getSlotNames()
```

Get a list of slot (property) names

Returns:
list of slot (property) names

getSlot

```
public ISharedObjectSlot getSlot(String name)
```

Get ISharedObjectSlot interface to a slot (property) by name

Parameters:
name - slot (property) name

Returns:
ISharedObjectSlot interface

putSlot

```
public void putSlot(String name,
        ISharedObjectSlot slot)
```

Add a new slot (property) to a shared object.

Parameters:
name - slot (property) name
slot - new slot

getClients

```
public java.util.List getClients()
```

Get a list of client that are connected to this shared object.

Returns:
list of client that are connected to this shared object

isClient

```
public boolean isClient(IClient client)
```

Is this client connected to shared object

Parameters:
client - client

Returns:
true if client is conencted to shared object

addClient

public void **addClient**(IClient client)

Add a client to this shared object.

Parameters:
client - client

removeClient

public void **removeClient**(IClient client)

Remove a client from this shared object.

Parameters:
client - client

size

public int **size**()

Get the number of active slot (properties). Deleted slots are not counted.

Returns:
number of active slot (properties). Deleted slots are not counted

acquire

public void **acquire**()

Increment the reference count to this shared object.

release

public void **release**()

Descrement the reference count to this shared object.

close

public void **close**()

Force close this shared object (not implemented)

getRefCount

public int **getRefCount**()

Get the current reference (clients) connected to this shared object. Includes unbalanced count of calls to acquire.

Returns:
the current reference (clients) connected to this shared object

isPersistent

public boolean **isPersistent**()

Is this shared object being persisted.

Returns:
true if shared object is being persisted

---

setPersistent

`public void **setPersistent**(boolean isPersistent)`

Set is shared object persisted.

Parameters:
`isPersistent` - true if shared object is being persisted

---

getVersion

`public int **getVersion**()`

Get the internval version number.

Returns:
internval version number

---

setVersion

`public void **setVersion**(int version)`

Set the internal version number.

Parameters:
`version` - internal version number

---

flush

`public void **flush**()`

Flush (write to disk) shared object

---

deleteSlot

`public void **deleteSlot**([IClient] client,
        String slotName)`

Remove a slot (property)

Parameters:
`client` - client removing slot or null if server side code
`slotName` - slot (property) name

---

deleteSlot

`public void **deleteSlot**(String slotName)`

Remove slot (property)

Parameters:
`slotName` - slot (property) name

---

getProperty

```
public AMFData getProperty(String slotName)
```

Get slot (property) value.

Parameters:
slotName - slot (property) name

Returns:
slot (property) value as AMFData object

setProperty

```
public void setProperty(String slotName,
        String value)
```

Set slot (property) value as a string value (will be wrapped in an AMFDataItem object)

Parameters:
slotName - slot (property) name
value - string value

setProperty

```
public void setProperty(String slotName,
        double value)
```

Set slot (property) value as a double value (will be wrapped in an AMFDataItem object)

Parameters:
slotName - slot (property) name
value - double value

setProperty

```
public void setProperty(String slotName,
        int value)
```

Set slot (property) value as a int value (will be wrapped in an AMFDataItem object)

Parameters:
slotName - slot (property) name
value - int value

setProperty

```
public void setProperty(String slotName,
        long value)
```

Set slot (property) value as a long value (will be wrapped in an AMFDataItem object)

Parameters:
slotName - slot (property) name
value - long value

setProperty

```
public void setProperty(String slotName,
         java.util.Date value)
```

Set slot (property) value as a date value (will be wrapped in an AMFDataItem object)

Parameters:
slotName - slot (property) name
value - date value

setProperty

```
public void setProperty(String slotName,
         boolean value)
```

Set slot (property) value as a boolean value (will be wrapped in an AMFDataItem object)

Parameters:
slotName - slot (property) name
value - boolean value

setProperty

```
public void setProperty(String slotName,
         AMFData data)
```

Set slot (property) value as AMFData object.

Parameters:
slotName - slot (property) name
data - slot value as AMFData object. Example: new AMFDataItem((double)1.234) or new AMFDataItem()

disconnect

```
public void disconnect(IClient client)
```

Disconnect client from shared object.

Parameters:
client - client to disconnect

getName

```
public String getName()
```

Get shared object name

Returns:
shared object name

setName

```
public void setName(String name)
```

Set shared object name

Parameters:
name - shared object name

send

```
public void send(String handlerName,
                 Object[] params)
```

Call client side handler attached to shared object.

Parameters:
handlerName - handler name
params - variable argument list of parameters

send

```
public void send(String handlerName)
```

Call client side handler attached to shared object (no parameters).

Parameters:
handlerName - handler name

addSlotListener

```
public void addSlotListener(ISharedObjectSlotNotify slotListener)
```

Add a slot listener. Will receive the following events: onSlotSetValue and onSlotDelete

Parameters:
slotListener - slot listener

removeSlotListener

```
public void removeSlotListener(ISharedObjectSlotNotify slotListener)
```

Remove slot listener

Parameters:
slotListener - slot listener

getStorageDir

```
public String getStorageDir()
```

Get path used to store shared object.

Returns:
path used to store shared object

setStorageDir

```
public void setStorageDir(String storageDir)
```

Set path used to store shared object.

Parameters:
storageDir - path used to store shared object

writeSetValueError

public void **writeSetValueError**(IClient client,
        String soName,
        boolean isPersistent,
        String slotName,
        String errorMsg)

Write an set value error message back to the client

Parameters:
        client - client removing slot or null if server side code
        soName - sharedObject name
        isPersistent - is persistent
        slotName - slot name
        errorMsg - error message

writeDeleteError

public void **writeDeleteError**(IClient client,
        String soName,
        boolean isPersistent,
        String slotName,
        String errorMsg)

Write an delete error message back to the client

Parameters:
        client - client removing slot or null if server side code
        soName - sharedObject name
        isPersistent - is persistent
        slotName - slot name
        errorMsg - error message

clear

public void **clear**()

Clear all properties from a shared object

purge

public int **purge**(int version)

Purge all deleted properties older than the version number

Returns:
        number of slots purged

getSlots

public java.util.List **getSlots**()

Get a list of active slots

Returns:
        list of active slots

containsProperty

`public boolean` **`containsProperty`**`(String slotName)`

Returns true is slot/property name exists

Parameters:
`slotName` - slot/property name

Returns:
true is slot/property name exists

containsSlot

`public boolean` **`containsSlot`**`(String slotName)`

Returns true is slot/property name exists

Parameters:
`slotName` - slot/property name

Returns:
true is slot/property name exists

lock

`public void` **`lock`**`()`

Lock a shared object for write access

unlock

`public void` **`unlock`**`()`

Unlock a shared object for write access

getParent

`public` [`ISharedObjects`](ISharedObjects) **`getParent`**`()`

Get the shared object container to which this shared object belongs.

Returns:
shared object container

com.wowza.wms.sharedobject
Interface ISharedObjectNotify

public interface **ISharedObjectNotify**
extends

ISharedObjectNotify: listener interface used by IApplicationInstance addSharedObjectListener

Method Summary

void	**onSharedObjectConnect**([ISharedObject](#) sharedObject, [IClient](#) client) Triggered when client connects to sharedObject
void	**onSharedObjectCreate**([ISharedObject](#) sharedObject) Triggered when sharedObject created
void	**onSharedObjectDestroy**([ISharedObject](#) sharedObject) Triggered when sharedObject destroyed
void	**onSharedObjectDisconnect**([ISharedObject](#) sharedObject, [IClient](#) client) Triggered when client disconnects from sharedObject

Methods

onSharedObjectCreate

public void **onSharedObjectCreate**([ISharedObject](#) sharedObject)

Triggered when sharedObject created

Parameters:
    sharedObject - sharedObject

onSharedObjectDestroy

public void **onSharedObjectDestroy**([ISharedObject](#) sharedObject)

Triggered when sharedObject destroyed

Parameters:
    sharedObject - sharedObject

onSharedObjectConnect

public void **onSharedObjectConnect**([ISharedObject](#) sharedObject,
    [IClient](#) client)

Triggered when client connects to sharedObject

Parameters:
    sharedObject - sharedObject
    client - client

onSharedObjectDisconnect

```
public void onSharedObjectDisconnect(ISharedObject sharedObject,
          IClient client)
```

Triggered when client disconnects from sharedObject

Parameters:

sharedObject - sharedObject

client - client

onSharedObjectDisconnect

```
public void onSharedObjectDisconnect(ISharedObject sharedObject,
          IClient client)
```

com.wowza.wms.sharedobject
Interface ISharedObjects

public interface **ISharedObjects**
extends

ISharedObjects: public interface to SharedObjects. Represent the list of shared objects managed by IApplicationInstance.

Method Summary

void	**addSharedObjectListener**(ISharedObjectNotify sharedObjectListener) Add a shared object listener.
void	**disconnect**(IClient client) Disconnect client from all shared objects in list.
boolean	**exists**(ISharedObject sharedObject) Is sharedObject in this list (by shared object reference).
boolean	**exists**(String objectName) Is sharedObject in this list (by name).
void	**flush**() Flush all persistent shared objects to disk.
ISharedObject	**get**(String name) Get shared object by name.
java.util.List	**getObjectNames**() Get a list of shared object names.
ISharedObject	**getOrCreate**(String name) Get shared object by name if it does not exist create a new shared object with the given name.
String	**getStorageDir**() Get the storage directory for all shared objects in list.
boolean	**isPersistent**() Are shared objects in list persistent.
void	**load**() Load persistent shared objects from file system.
void	**put**(String objectName, ISharedObject sharedObject) Add or replace a shared object.
void	**remove**(String objectName) Remove a shared object.
void	**removeClient**(IClient client) Remove a client from any shared object that it is connected to in this list.
void	**removeSharedObjectListener**(ISharedObjectNotify sharedObjectListener) Remove a shared object listener.

void	**setPersistent**(boolean isPersistent) Set is shared object in list persistent
void	**setStorageDir**(String storageDir) Set the storage directory for all shared objects in list.
int	**size**() Get number of shared objects.

Methods

size

`public int **size**()`

> Get number of shared objects.
>
> #### Returns:
> > number of shared objects

get

`public ISharedObject **get**(String name)`

> Get shared object by name. If the shared object does not exists null will be returned. (see ISharedObjects.getOrCreate)
>
> #### Parameters:
> > name - shared object name
>
> #### Returns:
> > shared object

getOrCreate

`public ISharedObject **getOrCreate**(String name)`

> Get shared object by name if it does not exist create a new shared object with the given name.
>
> #### Parameters:
> > name - shared object name
>
> #### Returns:
> > shared object

getObjectNames

`public java.util.List **getObjectNames**()`

> Get a list of shared object names.
>
> #### Returns:
> > list of shared object names

put

```
public void put(String objectName,
            ISharedObject sharedObject)
```

Add or replace a shared object.

Parameters:
objectName - shared object name
sharedObject - shared object

remove

```
public void remove(String objectName)
```

Remove a shared object.

Parameters:
objectName - shared object name

exists

```
public boolean exists(String objectName)
```

Is sharedObject in this list (by name).

Parameters:
objectName - shared object name

Returns:
true if shared object in list

exists

```
public boolean exists(ISharedObject sharedObject)
```

Is sharedObject in this list (by shared object reference).

Parameters:
sharedObject - shared object

Returns:
true if shared object in list

isPersistent

```
public boolean isPersistent()
```

Are shared objects in list persistent.

Returns:
true is shared objects in list are persistent

setPersistent

```
public void setPersistent(boolean isPersistent)
```

Set is shared object in list persistent

Parameters:
    isPersistent - true is shared objects in list are persistent

---

removeClient

`public void` **`removeClient`**`(`[`IClient`](#)` client)`

Remove a client from any shared object that it is connected to in this list.

Parameters:
    client - client

---

flush

`public void` **`flush`**`()`

Flush all persistent shared objects to disk.

---

disconnect

`public void` **`disconnect`**`(`[`IClient`](#)` client)`

Disconnect client from all shared objects in list.

Parameters:
    client - client

---

addSharedObjectListener

`public void` **`addSharedObjectListener`**`(`[`ISharedObjectNotify`](#)` sharedObjectListener)`

Add a shared object listener. The listener will receive the following events: onSharedObjectCreate, onSharedObjectDestroy, onSharedObjectConnect, onSharedObjectDisconnect.

Parameters:
    sharedObjectListener

---

removeSharedObjectListener

`public void` **`removeSharedObjectListener`**`(`[`ISharedObjectNotify`](#)` sharedObjectListener)`

Remove a shared object listener.

Parameters:
    sharedObjectListener

---

getStorageDir

`public String` **`getStorageDir`**`()`

Get the storage directory for all shared objects in list.

Returns:
    storage dir

---

setStorageDir

`public void` **`setStorageDir`**`(String storageDir)`

Set the storage directory for all shared objects in list.

Parameters:
    storageDir

load

```
public void load()
```

Load persistent shared objects from file system.

com.wowza.wms.sharedobject
Interface ISharedObjectSlot

public interface **ISharedObjectSlot**
extends

ISharedObjectSlot: public interface to SharedObjectSlot class.

Method Summary

AMFData	**getData**() Get slot data as AMFData object.
int	**getLastClientId**() Get client id of client that performaned last operation on slot.
int	**getLastOperation**() Get last slot (property) operation.
String	**getName**() Get slot (property) name.
int	**getSlotVersion**() Get slot version
int	**getSoVersion**() Get parent shared object version
void	**incSlotVersion**() Increment slot version by 1.
void	**init**(String name, AMFData data, int slotVersion) Initialize shared object slot
void	**setData**(AMFData data) Set slot data as AMFData object.
void	**setData**(byte[] data) Set slot data as byte[].
void	**setData**(byte[] data, AMFDataContextDeserialize context) Set slot data as byte[].
void	**setLastClientId**(int lastClientId) Set client id of client that performaned last operation on slot.
void	**setLastOperation**(int lastOperation) Set last slot (property) operation.
void	**setName**(String name) Set slot (property) name
void	**setSlotVersion**(int slotVersion) Set slot version

void	[setSoVersion](int soVersion) Set parent shared object version

Methods

init

```
public void init(String name,
         AMFData data,
         int slotVersion)
```

Initialize shared object slot

Parameters:
name - slot (property) name
data - data
slotVersion - version

getData

```
public AMFData getData()
```

Get slot data as AMFData object.

Returns:
slot data as AMFData object

setData

```
public void setData(byte[] data,
         AMFDataContextDeserialize context)
```

Set slot data as byte[]. Data will be deserialized as AMFData object.

Parameters:
data - data as byte[]
context - deserialization context

setData

```
public void setData(byte[] data)
```

Set slot data as byte[]. Data will be deserialized as AMFData object.

Parameters:
data - data as byte[]

setData

```
public void setData(AMFData data)
```

Set slot data as AMFData object.

Parameters:
data - data as AMFData object

getName

```
public String getName()
```

Get slot (property) name.

Returns:
slot (property) name

setName

```
public void setName(String name)
```

Set slot (property) name

Parameters:
name - slot (property) name

getSlotVersion

```
public int getSlotVersion()
```

Get slot version

Returns:
slot version

setSlotVersion

```
public void setSlotVersion(int slotVersion)
```

Set slot version

Parameters:
slotVersion - slot version

incSlotVersion

```
public void incSlotVersion()
```

Increment slot version by 1.

getSoVersion

```
public int getSoVersion()
```

Get parent shared object version

Returns:
parent shared object version

setSoVersion

```
public void setSoVersion(int soVersion)
```

Set parent shared object version

Parameters:
      `soVersion` - parent shared object version

getLastOperation

`public int `**`getLastOperation`**`()`

Get last slot (property) operation. See ISharedObject.SHAREDOBJECT_CMD_*.

Returns:
      last slot (property) operation (ISharedObject.SHAREDOBJECT_CMD_*)

setLastOperation

`public void `**`setLastOperation`**`(int lastOperation)`

Set last slot (property) operation. See ISharedObject.SHAREDOBJECT_CMD_*.

Parameters:
      `lastOperation` - last slot (property) operation (ISharedObject.SHAREDOBJECT_CMD_*)

getLastClientId

`public int `**`getLastClientId`**`()`

Get client id of client that performaned last operation on slot.

Returns:
      client id of client that performaned last operation on slot

setLastClientId

`public void `**`setLastClientId`**`(int lastClientId)`

Set client id of client that performaned last operation on slot.

Parameters:
      `lastClientId` - client id of client that performaned last operation on slot

com.wowza.wms.sharedobject
Interface ISharedObjectSlotNotify

public interface **ISharedObjectSlotNotify**
extends

ISharedObjectNotify: listener interface used by ISharedObject addSlotListener

Method Summary

void	**onSlotDelete**(ISharedObject sharedObject, ISharedObjectSlot slot) Triggered when sharedObject slot value deleted
void	**onSlotSetValue**(ISharedObject sharedObject, ISharedObjectSlot slot) Triggered when sharedObject slot value set

Methods

onSlotSetValue

public void **onSlotSetValue**(ISharedObject sharedObject,
        ISharedObjectSlot slot)

   Triggered when sharedObject slot value set

   Parameters:
        sharedObject
        slot

onSlotDelete

public void **onSlotDelete**(ISharedObject sharedObject,
        ISharedObjectSlot slot)

   Triggered when sharedObject slot value deleted

   Parameters:
        sharedObject
        slot

com.wowza.wms.sharedobject
Class SharedObject

```
java.lang.Object
    |
    +-com.wowza.wms.sharedobject.SharedObject
```

All Implemented Interfaces:

ISharedObject

public class **SharedObject**
extends Object
implements ISharedObject

Field Summary

public static final	READACCESS
	Value: **0**
public static final	WRITEACCESS
	Value: **1**

Fields inherited from interface com.wowza.wms.sharedobject.ISharedObject

FILEEXTENSION, SHAREDOBJECT_CMD_CONNECT, SHAREDOBJECT_CMD_CONNECTSUCCESS,
SHAREDOBJECT_CMD_DELETE, SHAREDOBJECT_CMD_DISCONNECT, SHAREDOBJECT_CMD_ERROR,
SHAREDOBJECT_CMD_SEND, SHAREDOBJECT_CMD_SETVALUE, SHAREDOBJECT_STATUS_CHANGE,
SHAREDOBJECT_STATUS_CLEAR, SHAREDOBJECT_STATUS_DELETE, SHAREDOBJECT_STATUS_SUCCESS

Constructor Summary

public	SharedObject(String name)
	Create new shared object
public	SharedObject(String name, boolean isPersistent, String storageDir)
	Create new shared object

Method Summary

void	acquire()
void	addClient(IClient client)
void	addSlotListener(ISharedObjectSlotNotify slotListener)
void	clear()
void	close()

boolean	containsProperty(String slotName)	
boolean	containsSlot(String slotName)	
void	deleteSlot(IClient client, String slotName)	
void	deleteSlot(String slotName)	
void	disconnect(IClient client)	
void	flush()	
static boolean[]	getAccess(IClient client, String soName)	
java.util.List	getClients()	
void	getClientUpdates(IClient client)	
String	getName()	
ISharedObjects	getParent()	
AMFData	getProperty(String slotName)	
int	getRefCount()	
ISharedObjectSlot	getSlot(String name)	
java.util.List	getSlotNames()	
java.util.List	getSlots()	
String	getStorageDir()	
int	getVersion()	
boolean	isClient(IClient client)	
boolean	isPersistent()	
void	load()	
void	lock()	
void	notifySlotDelete(ISharedObjectSlot slot)	
void	notifySlotSetValue(ISharedObjectSlot slot)	

int	purge(int version)	
void	putSlot(String name, ISharedObjectSlot slot)	
void	release()	
void	removeClient(IClient client)	
void	removeSlotListener(ISharedObjectSlotNotify slotListener)	
void	send(String handlerName)	
void	send(String handlerName, Object[] params)	
void	sendInternal(IClient client, String handlerName, byte[] msgBytes)	
void	sendInternal(IClient client, String handlerName, byte[] msgBytes, AMFDataContextDeserialize context)	
void	sendInternal(String handlerName, AMFData[] params)	
void	setName(String name)	
void	setParent(ISharedObjects parent)	
void	setPersistent(boolean isPersistent)	
void	setProperty(String slotName, AMFData data)	
void	setProperty(String slotName, boolean value)	
void	setProperty(String slotName, java.util.Date value)	
void	setProperty(String slotName, double value)	
void	setProperty(String slotName, int value)	
void	setProperty(String slotName, long value)	
void	setProperty(String slotName, String value)	
void	setSlotValue(IClient client, String slotName, AMFData amfData)	
void	setSlotValue(IClient client, String slotName, byte[] byteData)	
void	setSlotValue(IClient client, String slotName, byte[] byteData, AMFData amfData)	

void	setSlotValue([IClient](#) client, String slotName, byte[] byteData, [AMFData](#) amfData, [AMFDataContextDeserialize](#) context)
void	setSlotValue([IClient](#) client, String slotName, byte[] byteData, [AMFDataContextDeserialize](#) context)
void	setStorageDir(String storageDir)
void	setVersion(int version)
int	size()
void	unlock()
void	writeDeleteError([IClient](#) client, String soName, boolean isPersistent, String slotName, String errorMsg)
static void	writeError([IClient](#) client, String soName, boolean isPersistent, String errorMsg, boolean isConnect)
void	writeSetValueError([IClient](#) client, String soName, boolean isPersistent, String slotName, String errorMsg)

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface [com.wowza.wms.sharedobject.ISharedObject](#)

[acquire](#), [addClient](#), [addSlotListener](#), [clear](#), [close](#), [containsProperty](#), [containsSlot](#), [deleteSlot](#), [deleteSlot](#), [disconnect](#), [flush](#), [getClients](#), [getName](#), [getParent](#), [getProperty](#), [getRefCount](#), [getSlot](#), [getSlotNames](#), [getSlots](#), [getStorageDir](#), [getVersion](#), [isClient](#), [isPersistent](#), [lock](#), [purge](#), [putSlot](#), [release](#), [removeClient](#), [removeSlotListener](#), [send](#), [send](#), [setName](#), [setPersistent](#), [setProperty](#), [setProperty](#), [setProperty](#), [setProperty](#), [setProperty](#), [setProperty](#), [setProperty](#), [setStorageDir](#), [setVersion](#), [size](#), [unlock](#), [writeDeleteError](#), [writeSetValueError](#)

Fields

READACCESS

public static final int **READACCESS**

Constant value: **0**

WRITEACCESS

public static final int **WRITEACCESS**

Constant value: **1**

Constructors

SharedObject

```
public SharedObject(String name)
```

Create new shared object

Parameters:
name - shared object name

SharedObject

```
public SharedObject(String name,
                    boolean isPersistent,
                    String storageDir)
```

Create new shared object

Parameters:
name - shared object name
isPersistent - is persistent
storageDir - storage directory for persistent shared object

Methods

size

```
public int size()
```

purge

```
public int purge(int version)
```

clear

```
public void clear()
```

getSlots

```
public java.util.List getSlots()
```

getSlotNames

```
public java.util.List getSlotNames()
```

getSlot

```
public ISharedObjectSlot getSlot(String name)
```

putSlot

```
public void putSlot(String name,
        ISharedObjectSlot slot)
```

getClients

```
public java.util.List getClients()
```

isClient

```
public boolean isClient(IClient client)
```

addClient

```
public void addClient(IClient client)
```

removeClient

```
public void removeClient(IClient client)
```

acquire

```
public void acquire()
```

release

```
public void release()
```

getRefCount

```
public int getRefCount()
```

isPersistent

```
public boolean isPersistent()
```

setPersistent

```
public void setPersistent(boolean isPersistent)
```

getVersion

```
public int getVersion()
```

setVersion

```
public void setVersion(int version)
```

deleteSlot

```
public void deleteSlot(String slotName)
```

containsProperty

```
public boolean containsProperty(String slotName)
```

containsSlot

```
public boolean containsSlot(String slotName)
```

deleteSlot

```
public void deleteSlot(IClient client,
        String slotName)
```

getProperty

```
public AMFData getProperty(String slotName)
```

setProperty

```
public void setProperty(String slotName,
        boolean value)
```

setProperty

```
public void setProperty(String slotName,
        java.util.Date value)
```

setProperty

```
public void setProperty(String slotName,
        double value)
```

setProperty

```
public void setProperty(String slotName,
        long value)
```

setProperty

```
public void setProperty(String slotName,
        int value)
```

setProperty

```
public void setProperty(String slotName,
        String value)
```

setProperty

```
public void setProperty(String slotName,
        AMFData data)
```

setSlotValue

```
public void setSlotValue(IClient client,
        String slotName,
        AMFData amfData)
```

setSlotValue

```
public void setSlotValue(IClient client,
        String slotName,
        byte[] byteData)
```

setSlotValue

```
public void setSlotValue(IClient client,
        String slotName,
        byte[] byteData,
        AMFDataContextDeserialize context)
```

setSlotValue

```
public void setSlotValue(IClient client,
        String slotName,
        byte[] byteData,
        AMFData amfData)
```

setSlotValue

```
public void setSlotValue(IClient client,
        String slotName,
        byte[] byteData,
        AMFData amfData,
        AMFDataContextDeserialize context)
```

writeError

```
public static void writeError(IClient client,
        String soName,
        boolean isPersistent,
        String errorMsg,
        boolean isConnect)
```

writeSetValueError

```
public void writeSetValueError(IClient client,
        String soName,
        boolean isPersistent,
        String slotName,
        String errorMsg)
```

writeDeleteError

```
public void writeDeleteError(IClient client,
        String soName,
        boolean isPersistent,
        String slotName,
        String errorMsg)
```

getClientUpdates

```
public void getClientUpdates(IClient client)
```

disconnect

```
public void disconnect(IClient client)
```

getName

```
public String getName()
```

setName

```
public void setName(String name)
```

send

```
public void send(String handlerName,
        Object[] params)
```

send

```
public void send(String handlerName)
```

sendInternal

```
public void sendInternal(String handlerName,
        AMFData[] params)
```

sendInternal

```
public void sendInternal(IClient client,
        String handlerName,
        byte[] msgBytes)
```

sendInternal

```
public void sendInternal(IClient client,
        String handlerName,
        byte[] msgBytes,
        AMFDataContextDeserialize context)
```

addSlotListener

public void **addSlotListener**([ISharedObjectSlotNotify](#) slotListener)

removeSlotListener

public void **removeSlotListener**([ISharedObjectSlotNotify](#) slotListener)

notifySlotSetValue

public void **notifySlotSetValue**([ISharedObjectSlot](#) slot)

notifySlotDelete

public void **notifySlotDelete**([ISharedObjectSlot](#) slot)

getStorageDir

public String **getStorageDir**()

setStorageDir

public void **setStorageDir**(String storageDir)

flush

public void **flush**()

load

public void **load**()

close

public void **close**()

lock

public void **lock**()

unlock

```
public void unlock()
```

setParent

```
public void setParent(ISharedObjects parent)
```

getParent

```
public ISharedObjects getParent()
```

getAccess

```
public static boolean[] getAccess(IClient client,
        String soName)
```

Package

com.wowza.wms.stream

com.wowza.wms.stream
Class FastPlaySettings

```
java.lang.Object
    |
    +-com.wowza.wms.stream.FastPlaySettings
```

public class **FastPlaySettings**
extends Object

FastPlaySettings: data container for fast play settings

Constructor Summary

public	**FastPlaySettings**() Create empty object
public	**FastPlaySettings**(double multiplier, int fps, int direction) Create object

Method Summary

int	**getDirection**() Get direction (1 forward, -1 reverse)
int	**getFps**() Get frames per second
double	**getMultiplier**() Get speed of fast play
long	**getStartTC**() Get the timecode (milliseconds) where this fast play started
long	**getStartTCOffset**() Get the timecode (milliseconds) where this fast play started (not sure why we have both values)
void	**setDirection**(int direction) Set direction (1 forward, -1 reverse)
void	**setFps**(int fps) Set frames per second
void	**setMultiplier**(double multiplier) Set speed of fast play
void	**setStartTC**(long startTC) Set the timecode (milliseconds) where this fast play started
void	**setStartTCOffset**(long startTCOffset) Set the timecode (milliseconds) where this fast play started (not sure why we have both values)

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

FastPlaySettings

public **FastPlaySettings**()

Create empty object

FastPlaySettings

public **FastPlaySettings**(double multiplier,
                            int fps,
                            int direction)

Create object

Parameters:
multiplier - speed
fps - frames per second
direction - direction (1 forward, -1 reverse)

Methods

getFps

public int **getFps**()

Get frames per second

Returns:
frames per second

setFps

public void **setFps**(int fps)

Set frames per second

Parameters:
fps - frames per second

getMultiplier

public double **getMultiplier**()

Get speed of fast play

Returns:
speed of fast play

setMultiplier

`public void` **`setMultiplier`**`(double multiplier)`

Set speed of fast play

Parameters:
`multiplier` - speed of fast play

getDirection

`public int` **`getDirection`**`()`

Get direction (1 forward, -1 reverse)

Returns:
direction (1 forward, -1 reverse)

setDirection

`public void` **`setDirection`**`(int direction)`

Set direction (1 forward, -1 reverse)

Parameters:
`direction` - direction (1 forward, -1 reverse)

getStartTC

`public long` **`getStartTC`**`()`

Get the timecode (milliseconds) where this fast play started

Returns:
timecode of start of fast play (milliseconds)

setStartTC

`public void` **`setStartTC`**`(long startTC)`

Set the timecode (milliseconds) where this fast play started

Parameters:
`startTC` - timecode of start of fast play (milliseconds)

getStartTCOffset

`public long` **`getStartTCOffset`**`()`

Get the timecode (milliseconds) where this fast play started (not sure why we have both values)

Returns:
timecode of start of fast play (milliseconds)

setStartTCOffset

`public void` **`setStartTCOffset`**`(long startTCOffset)`

Set the timecode (milliseconds) where this fast play started (not sure why we have both values)

Parameters:

startTCOffset - timecode of start of fast play (milliseconds)

com.wowza.wms.stream
Interface IMediaIndexItem

public interface **IMediaIndexItem**
extends

IMediaIndexItem: generic interface to mediaIndex

Field Summary

public static final	MISSING media file is missing Value: ****missing****

Method Summary

IMediaIndexItem	clone() Make a clone copy of media index
String	getChecksum() Get checksum for media index
int	getExtent() Get the duration (milliseconds) of media index
long	getLastAccessed() Get last time media index was accessed (milliseconds)
boolean	isHitEnd() Is media index complete
void	setChecksum(IRandomAccessReader file) Set media index checksum.
void	setChecksum(String checksum) Set media index checksum
void	setLastAccessed(long time) Set last time media index accessed (milliseconds)
void	touch() Set last time accessed to current time

Fields

MISSING

public static final java.lang.String **MISSING**

media file is missing
Constant value: ****missing****

Methods

getExtent

`public int getExtent()`

Get the duration (milliseconds) of media index

Returns:
duration (milliseconds)

getChecksum

`public String getChecksum()`

Get checksum for media index

Returns:
checksum

setChecksum

`public void setChecksum(String checksum)`

Set media index checksum

Parameters:
checksum

setChecksum

`public void setChecksum(IRandomAccessReader file)`

Set media index checksum. Extract data from File spec

Parameters:
file

clone

`public IMediaIndexItem clone()`

Make a clone copy of media index

Returns:
shallow copy of media index

getLastAccessed

`public long getLastAccessed()`

Get last time media index was accessed (milliseconds)

Returns:
time media index was accessed (milliseconds)

setLastAccessed

public void **setLastAccessed**(long time)

> Set last time media index accessed (milliseconds)

> **Parameters:**
> > time - media index was accessed (milliseconds)

isHitEnd

public boolean **isHitEnd**()

> Is media index complete

> **Returns:**
> > true if media index is complete

touch

public void **touch**()

> Set last time accessed to current time

public void **setLastAccessed**(long time)

com.wowza.wms.stream
Interface IMediaListProvider

public interface **IMediaListProvider**
extends

Method Summary

MediaList	resolveMediaList(IMediaListReader mediaListReader, IMediaStream stream, String streamName) Called to resolve a amlst:streamname to a media list

Methods

resolveMediaList

```
public MediaList resolveMediaList(IMediaListReader mediaListReader,
       IMediaStream stream,
       String streamName)
```

Called to resolve a amlst:streamname to a media list

Parameters:
mediaListReader - mediaListReader
stream - media stream
streamName - stream name

Returns:
media list

com.wowza.wms.stream
Interface IMediaListReader

public interface **IMediaListReader**
extends

Method Summary

void	**close**() close file
IHTTPStreamerSession	**getHTTPStreamerSession**() Get the HTTPStreamerSession associated with this media list reader
String	**getMediaExtension**() Get media extension
MediaList	**getMediaList**() Get the MediaList object
String	**getPath**() Get abstract path to the media item
void	**init**(IApplicationInstance appInstance, IMediaStream stream, String mediaReadType, String basePath, String mediaName, IHTTPStreamerSession httpStreamerSession) Initialize mediaReader
boolean	**isOpen**() is file open
void	**open**(String basePath, String name) Open the file for reading
void	**setHTTPStreamerSession**(IHTTPStreamerSession httpStreamerSession) Set the HTTPStreamerSession associated with this media list reader
void	**setMediaReaderItem**(MediaReaderItem mediaReaderItem) Set the mediaReader item definition
void	**setProperties**(WMSProperties properties) Set the properties for this media reader

Methods

init

```
public void init(IApplicationInstance appInstance,
        IMediaStream stream,
        String mediaReadType,
        String basePath,
        String mediaName,
        IHTTPStreamerSession httpStreamerSession)
```

Initialize mediaReader

Parameters:
stream - parent stream
mediaReadType - media reader type id. Example: flv
basePath - Base path for application instance
mediaName - name of the media item

setMediaReaderItem

public void **setMediaReaderItem**(MediaReaderItem mediaReaderItem)

Set the mediaReader item definition

Parameters:
mediaReaderItem

open

public void **open**(String basePath,
        String name)

Open the file for reading

Parameters:
basePath - base path to file
name - file name without extension

close

public void **close**()

close file

isOpen

public boolean **isOpen**()

is file open

Returns:
is file open

setProperties

public void **setProperties**(WMSProperties properties)

Set the properties for this media reader

Parameters:
properties - properties

getPath

public String **getPath**()

Get abstract path to the media item

Returns:

abstract path to the media item

getMediaExtension

`public String` **`getMediaExtension`**`()`

Get media extension

Returns:
media extension

getMediaList

`public` [`MediaList`](#) **`getMediaList`**`()`

Get the MediaList object

Returns:
MediaList object

getHTTPStreamerSession

`public` [`IHTTPStreamerSession`](#) **`getHTTPStreamerSession`**`()`

Get the HTTPStreamerSession associated with this media list reader

Returns:
HTTPStreamerSession

setHTTPStreamerSession

`public void` **`setHTTPStreamerSession`**`(`[`IHTTPStreamerSession`](#) `httpStreamerSession)`

Set the HTTPStreamerSession associated with this media list reader

Parameters:
`httpStreamerSession` - HTTPStreamerSession

com.wowza.wms.stream
Interface IMediaReader

public interface **IMediaReader**
extends

IMediaReader: generic media reader interface. All media types implement this interface to interact with PlaylistPlayer.

Field Summary

public static final	**CONTENTTYPE_MEDIA** Value: **1**
public static final	**CONTENTTYPE_MEDIALIST** Value: **2**
public static final	**DEFAULT_RANDOMACCESSREADER** Value: **com.wowza.io.DirectRandomAccessReader**
public static final	**DEFAULT_RANDOMACCESSREADEROPTIMIZER** Value: **com.wowza.io.RandomAccessReadOptimizer**
public static final	**PLAYEVENT_AFTERBUFFERFILL** Value: **5**
public static final	**PLAYEVENT_AFTERMETADATA** Value: **3**
public static final	**PLAYEVENT_BEFOREBUFFERFILL** Value: **4**
public static final	**PLAYEVENT_BEFOREMETADATA** Value: **2**
public static final	**PLAYEVENT_STARTPLAYBACK** Value: **1**
public static final	**SEEK_EXACT** Seek direction: closest frame (audio, video) (key, no-key) Value: **4**
public static final	**SEEK_KEYCLOSE** Seek direction: closest key frame Value: **3**
public static final	**SEEK_KEYDOWN** Seek direction: down to closets key frame Value: **2**

public static final	**SEEK_KEYUP** Seek direction: up to closets key frame Value: **1**	
public static final	**SEEKTARGET_AUDIO** Value: **3**	
public static final	**SEEKTARGET_ENHANCED** Value: **4**	
public static final	**SEEKTARGET_VIDEOKEYFRAME** Value: **1**	

Method Summary

void	**close**() close file
long	**getDuration**() Get duration or time (milliseconds) of the media file
long	**getLength**() Get the stream length in bytes
String	**getMediaExtension**() Get media extension
java.util.List	**getMetadata**() Get a collection of metadata packets in ByteBuffers for this file.
String	**getPath**() Get abstract path to the media item
IMediaReaderStreamPos ition	**getStreamPosition**() Get a reference to the current stream position
void	**init**(IApplicationInstance appInstance, IMediaStream stream, String mediaReadType, String basePath, String mediaName) Initialize mediaReader
boolean	**isOpen**() is file open
void	**open**(String basePath, String name) Open the file for reading
void	**rewind**() rewind file to start
PlaylistSeekResult	**seek**(long timecode, int seektype) seek to timecode in file
int	**sendZeroLengthPacket**(int type, int timecode, boolean isAbsolute, IMediaStream stream, java.io.OutputStream out, AMFObj wmsObj, PlaylistCursor flvCursor, PlaylistWriteControl control, PlaylistReaderWriteResults results, long[] sizes, boolean isForceTCZero)

void	**setMediaReaderItem**(MediaReaderItem mediaReaderItem) Set the mediaReader item definition
void	**setProperties**([WMSProperties](#) properties) Set the properties for this media reader
void	**setStreamPosition**([IMediaReaderStreamPosition](#) pos) Set the file position within the media file
void	**startPlayback**() Called each time the player being playback (before the buffer it filled)
int	**writeGeneratedKeyFrame**([IMediaStream](#) stream, java.io.OutputStream out, [AMFObj](#) wmsObjAudio, [AMFObj](#) wmsObjVideo, [AMFObj](#) wmsObjData, PlaylistCursor flvCursor, PlaylistWriteControl control, PlaylistReaderWriteResults results, long[] sizes, [FastPlaySettings](#) fastPlaySettings, boolean isForceTCZero) From current location in file generate a key frame (enhanced seek) and write it to out
int	**writePackets**([IMediaStream](#) stream, java.io.OutputStream out, [AMFObj](#) wmsObjAudio, [AMFObj](#) wmsObjVideo, [AMFObj](#) wmsObjData, PlaylistCursor flvCursor, PlaylistWriteControl control, PlaylistReaderWriteResults results, long[] sizes, [FastPlaySettings](#) fastPlaySettings, boolean isForceTCZero) From current location in file write packets to output
int	**writePackets**(java.util.List packetList, PlaylistCursor flvCursor, PlaylistWriteControl control, PlaylistReaderWriteResults results, long[] sizes, [FastPlaySettings](#) fastPlaySettings) Write packets to the packetList as AMFPackets

Fields

CONTENTTYPE_MEDIA

`public static final int **CONTENTTYPE_MEDIA**`

    Constant value: **1**

CONTENTTYPE_MEDIALIST

`public static final int **CONTENTTYPE_MEDIALIST**`

    Constant value: **2**

DEFAULT_RANDOMACCESSREADER

`public static final java.lang.String **DEFAULT_RANDOMACCESSREADER**`

    Constant value: **com.wowza.io.DirectRandomAccessReader**

DEFAULT_RANDOMACCESSREADEROPTIMIZER

`public static final java.lang.String **DEFAULT_RANDOMACCESSREADEROPTIMIZER**`

    Constant value: **com.wowza.io.RandomAccessReadOptimizer**

SEEKTARGET_VIDEOKEYFRAME

`public static final int` **`SEEKTARGET_VIDEOKEYFRAME`**

Constant value: **1**

SEEKTARGET_AUDIO

`public static final int` **`SEEKTARGET_AUDIO`**

Constant value: **3**

SEEKTARGET_ENHANCED

`public static final int` **`SEEKTARGET_ENHANCED`**

Constant value: **4**

PLAYEVENT_STARTPLAYBACK

`public static final int` **`PLAYEVENT_STARTPLAYBACK`**

Constant value: **1**

PLAYEVENT_BEFOREMETADATA

`public static final int` **`PLAYEVENT_BEFOREMETADATA`**

Constant value: **2**

PLAYEVENT_AFTERMETADATA

`public static final int` **`PLAYEVENT_AFTERMETADATA`**

Constant value: **3**

PLAYEVENT_BEFOREBUFFERFILL

`public static final int` **`PLAYEVENT_BEFOREBUFFERFILL`**

Constant value: **4**

PLAYEVENT_AFTERBUFFERFILL

`public static final int` **`PLAYEVENT_AFTERBUFFERFILL`**

Constant value: **5**

SEEK_KEYUP

```
public static final int SEEK_KEYUP
```

Seek direction: up to closets key frame
Constant value: **1**

SEEK_KEYDOWN

```
public static final int SEEK_KEYDOWN
```

Seek direction: down to closets key frame
Constant value: **2**

SEEK_KEYCLOSE

```
public static final int SEEK_KEYCLOSE
```

Seek direction: closest key frame
Constant value: **3**

SEEK_EXACT

```
public static final int SEEK_EXACT
```

Seek direction: closest frame (audio, video) (key, no-key)
Constant value: **4**

Methods

init

```
public void init(IApplicationInstance appInstance,
        IMediaStream stream,
        String mediaReadType,
        String basePath,
        String mediaName)
```

Initialize mediaReader

Parameters:
stream - parent stream
mediaReadType - media reader type id. Example: flv
basePath - Base path for application instance
mediaName - name of the media item

setMediaReaderItem

```
public void setMediaReaderItem(MediaReaderItem mediaReaderItem)
```

Set the mediaReader item definition

Parameters:
mediaReaderItem

open

```
public void open(String basePath,
        String name)
```

Open the file for reading

Parameters:
basePath - base path to file
name - file name without extension

---

getMetadata

```
public java.util.List getMetadata()
```

Get a collection of metadata packets in ByteBuffers for this file. You can use 'new AMFDataList(data)' to convert to AMF objects.

Returns:
collection of metadata packets in ByteBuffers

---

rewind

```
public void rewind()
```

rewind file to start

---

close

```
public void close()
```

close file

---

isOpen

```
public boolean isOpen()
```

is file open

Returns:
is file open

---

seek

```
public PlaylistSeekResult seek(long timecode,
        int seektype)
```

seek to timecode in file

Parameters:
timecode - timecode (milliseconds) to seek to
seektype - seek type IMediaReader.SEEK_*

Returns:
detailed results object of seek or null if failure

---

writePackets

```
public int writePackets(IMediaStream stream,
        java.io.OutputStream out,
        AMFObj wmsObjAudio,
        AMFObj wmsObjVideo,
        AMFObj wmsObjData,
        PlaylistCursor flvCursor,
        PlaylistWriteControl control,
        PlaylistReaderWriteResults results,
        long[] sizes,
        FastPlaySettings fastPlaySettings,
        boolean isForceTCZero)
```

From current location in file write packets to output

Parameters:

stream - parent mediaStream

out - output stream

wmsObjAudio - audio channel amfObj

wmsObjVideo - video channel amfObj

wmsObjData - data channel amfObj

flvCursor - current cursor that keeps track of timecodes and flags indicating position in media file

control - write control flags. Mainly used to control when it should stop writing

results - write results returned from this routine

sizes - array of values that keep track of number of bytes written and number of packets for each data type (audio, video, data). See IMediaStreamPlay.PLAYSIZES_*

fastPlaySettings - current fastPlay settings for the stream

isForceTCZero - are we forcing all timecodes to zero

Returns:

number of bytes written

writePackets

```
public int writePackets(java.util.List packetList,
        PlaylistCursor flvCursor,
        PlaylistWriteControl control,
        PlaylistReaderWriteResults results,
        long[] sizes,
        FastPlaySettings fastPlaySettings)
```

Write packets to the packetList as AMFPackets

Parameters:

packetList - list to which to write packets

flvCursor - current cursor that keeps track of timecodes and flags indicating position in media file

control - write control flags. Mainly used to control when it should stop writing

results - write results returned from this routine

sizes - array of values that keep track of number of bytes written and number of packets for each data type (audio, video, data). See IMediaStreamPlay.PLAYSIZES_*

fastPlaySettings - current fastPlay settings for the stream

Returns:

number of bytes written

writeGeneratedKeyFrame

```
public int writeGeneratedKeyFrame(IMediaStream stream,
        java.io.OutputStream out,
        AMFObj wmsObjAudio,
        AMFObj wmsObjVideo,
        AMFObj wmsObjData,
        PlaylistCursor flvCursor,
        PlaylistWriteControl control,
        PlaylistReaderWriteResults results,
        long[] sizes,
        FastPlaySettings fastPlaySettings,
        boolean isForceTCZero)
```

From current location in file generate a key frame (enhanced seek) and write it to out

Parameters:

stream - parent mediaStream

out - output stream

wmsObjAudio - audio channel amfObj

wmsObjVideo - video channel amfObj

wmsObjData - data channel amfObj

flvCursor - current cursor that keeps track of timecodes and flags indicating position in media file

control - write control flags. Mainly used to control when it should stop writing

results - write results returned from this routine

sizes - array of values that keep track of number of bytes written and number of packets for each data type (audio, video, data). See IMediaStreamPlay.PLAYSIZES_*

fastPlaySettings - current fastPlay settings for the stream

isForceTCZero - are we forcing all timecodes to zero

Returns:

number of bytes written

---

sendZeroLengthPacket

```
public int sendZeroLengthPacket(int type,
        int timecode,
        boolean isAbsolute,
        IMediaStream stream,
        java.io.OutputStream out,
        AMFObj wmsObj,
        PlaylistCursor flvCursor,
        PlaylistWriteControl control,
        PlaylistReaderWriteResults results,
        long[] sizes,
        boolean isForceTCZero)
```

---

startPlayback

```
public void startPlayback()
```

Called each time the player being playback (before the buffer it filled)

---

getDuration

```
public long getDuration()
```

Get duration or time (milliseconds) of the media file

Returns:

duration or time (milliseconds) of the media file

getLength

```
public long getLength()
```

Get the stream length in bytes

Returns:
stream length in bytes

getPath

```
public String getPath()
```

Get abstract path to the media item

Returns:
abstract path to the media item

getMediaExtension

```
public String getMediaExtension()
```

Get media extension

Returns:
media extension

getStreamPosition

```
public IMediaReaderStreamPosition getStreamPosition()
```

Get a reference to the current stream position

Returns:
stream position

setStreamPosition

```
public void setStreamPosition(IMediaReaderStreamPosition pos)
```

Set the file position within the media file

Parameters:
pos - stream position

setProperties

```
public void setProperties(WMSProperties properties)
```

Set the properties for this media reader

Parameters:
properties - properties

com.wowza.wms.stream
Interface IMediaReaderActionNotify

public interface **IMediaReaderActionNotify**
extends

IMediaReaderActionNotify: listener interface for IMediaReader actions: See
IApplicationInstance.addMediaReaderListener(IMediaReaderActionNotify mediaReaderListener)

Method Summary

void	onMediaReaderClose(IMediaReader mediaReader, IMediaStream stream) Called when media reader is closed
void	onMediaReaderCreate(IMediaReader mediaReader) Called when media reader is created
void	onMediaReaderExtractMetaData(IMediaReader mediaReader, IMediaStream stream) Called after media reader metadata is extraced from the file
void	onMediaReaderInit(IMediaReader mediaReader, IMediaStream stream) Called after media reader is initialized
void	onMediaReaderOpen(IMediaReader mediaReader, IMediaStream stream) Called after media reader is opened

Methods

onMediaReaderCreate

public void **onMediaReaderCreate**(IMediaReader mediaReader)

   Called when media reader is created

   Parameters:
        mediaReader - media reader

onMediaReaderInit

public void **onMediaReaderInit**(IMediaReader mediaReader,
        IMediaStream stream)

   Called after media reader is initialized

   Parameters:
        mediaReader - media reader
        stream - stream

onMediaReaderOpen

```
public void onMediaReaderOpen(IMediaReader mediaReader,
        IMediaStream stream)
```

Called after media reader is opened

Parameters:
mediaReader - media reader

stream - stream

onMediaReaderExtractMetaData

```
public void onMediaReaderExtractMetaData(IMediaReader mediaReader,
        IMediaStream stream)
```

Called after media reader metadata is extraced from the file

Parameters:
mediaReader - media reader

stream - stream

onMediaReaderClose

```
public void onMediaReaderClose(IMediaReader mediaReader,
        IMediaStream stream)
```

Called when media reader is closed

Parameters:
mediaReader - media reader

stream - stream

onMediaReaderOpen

```
public void onMediaReaderOpen(IMediaReader mediaReader,
        IMediaStream stream)
```

com.wowza.wms.stream
Interface IMediaReaderEncInfo

public interface **IMediaReaderEncInfo**
extends

Method Summary

MediaReaderEncInfo	getEncInfo()

Methods

getEncInfo

public MediaReaderEncInfo **getEncInfo**()

com.wowza.wms.stream
Interface IMediaReaderStreamPosition

public interface **IMediaReaderStreamPosition**
extends

IMediaReaderStreamPosition: Internal use

Method Summary

boolean	isValid()

Methods

isValid

public boolean **isValid**()

com.wowza.wms.stream
Interface IMediaStream

public interface **IMediaStream**
extends

IMediaStream: public, generic interface to mediaStream object. Upon creation of a new mediaStream, the client connection's default streamType value will be used to dynamically create a mediaStream object based on the definitions available in the vHosts.mediaStreamMap. All mediaStream implementations implement this interface.

Field Summary

public static final	**AUDIOSAMPLEACCESS** Value: **2**
public static final	**READACCESS** Value: **0**
public static final	**VIDEOSAMPLEACCESS** Value: **3**
public static final	**WRITEACCESS** Value: **1**

Method Summary

void	**addAudioCodecConfigPacket**(long timecode, **AMFPacket** packet) Set audio codec configuration packet (needed for H.264/AAC playback)
void	**addAudioData**(byte[] data, int offset, int size) Add data to current audio packet
void	**addClientListener**(**IMediaStreamActionNotify** actionListener) Add client listener.
void	**addClientListener**(**IMediaStreamActionNotify2** actionListener) Add client listener.
void	**addClientListener**(**IMediaStreamActionNotify3** actionListener) Add client listener.
void	**addDataData**(byte[] data, int offset, int size) Add data to current data packet
void	**addVideoCodecConfigPacket**(long timecode, **AMFPacket** packet) Set video codec configuration packet (needed for H.264/AAC playback)
void	**addVideoData**(byte[] data, int offset, int size) Add data to current video packet

void	**addVideoH264SEIListener**(IMediaStreamH264SEINotify h264SEIListener) Add an H.264 SEI listener.	
void	**clear**() Delete media file pointed to by this mediaStream (be careful)	
void	**clearFastPlaySettings**() Clear fastPlay settings	
void	**clearLoggingValues**()	
void	**close**() Close mediaStream	
void	**flush**() Force publishing packets to be flushed from the input buffers to the output buffers	
boolean[]	**getAccess**(IClient client, String name) Get the read/write access to this stream for this client	
AMFPacket	**getAudioCodecConfigPacket**(long timecode) Get audio codec configuration packet (needed for H.264/AAC playback)	
int	**getAudioMissing**() Get number of audio bytes missing from current audio packet	
int	**getAudioSize**() Get the size of the current audio packet that is being streamed from the client to the server	
long	**getAudioTC**() Get last absolute audio timecode (milliseconds) sent to mediaStream	
int	**getBufferTime**() Get buffer time for mediaStream (milliseconds)	
byte[]	**getBurstStartStop**(boolean isStart) Get the dynamic streaming burst start/stop AMF packet	
String	**getCacheName**() not used	
IClient	**getClient**() Get parent client connection	
int	**getClientId**() Get parent client connection (id)	
String	**getContextStr**() Returns the stream context string in the form [application]/[appInstance]/[streamName].	
int	**getDataMissing**() Get number of data bytes missing from current audio packet	
int	**getDataSize**() Get the size of the current data packet that is being streamed from the client to the server	
long	**getDataTC**() Get last absolute data timecode (milliseconds) sent to mediaStream	

int	**getDataType**()	
	Get the data packet type: (IVHost.CONTENTTYPE_DATA0 or IVHost.CONTENTTYPE_DATA3)	
String	**getDvrRecorder**()	
	Get the DVR Recorder for this stream	
ILiveStreamDvrRecorder	**getDvrRecorder**(String name)	
	Get the DVR Recorder interface to a stream by name	
String	**getDvrRecorderList**()	
	Get the comma separated list of DVR Recorder names being used by this stream (see conf/Dvr.xml)	
String	**getDvrRepeater**()	
	Get the DVR repeater name for this stream	
ElapsedTimer	**getElapsedTime**()	
	Get the interface to the elapse timer	
String	**getExt**()	
	Get media file extension	
FastPlaySettings	**getFastPlaySettings**()	
	Get current fastPlay settings	
int	**getHeaderSize**()	
	Get the last packet header size (debugging)	
IHTTPStreamerSession	**getHTTPStreamerSession**()	
	Get the HTTPStreamer session associated with this stream	
AMFPacket	**getLastKeyFrame**()	
	Get most recent video key frame	
AMFPacket	**getLastPacket**()	
	Get most recent live packet	
String	**getLiveStreamPacketizer**()	
	Get the live stream packetizer that this stream is using	
ILiveStreamPacketizer	**getLiveStreamPacketizer**(String name)	
	Get the LiveStreamPacketizer interface to a stream by name	
String	**getLiveStreamPacketizerList**()	
	Get the comma separated list of LiveStreamPacketizers names being used by this stream (see conf/LiveStreamPacketizers.xml)	
String	**getLiveStreamRepeater**()	
	Get the live stream repeater name for the stream	
ILiveStreamTranscoder	**getLiveStreamTranscoder**(String name)	
	Get a live stream transcoder for this stream by name	
String	**getLiveStreamTranscoderList**()	
	Get the comma separated list of LiveStreamTranscoders names being used by this stream (see conf/LiveStreamTranscoders.xml)	
java.util.Map	**getLiveStreamTranscoders**()	
	Get the list of transcoders for this stream.	

long	**getMaxTimecode**() Get the timecode of the latest received packet	
IOPerformanceCounter	**getMediaIOPerformance**() Get IO performance counter	
IMediaStreamMetaDataP rovider	**getMetaDataProvider**() Get the metaData provider	
String	**getName**() Get stream name	
com.wowza.wms.netconn ection.INetConnection	**getNetConnection**() Get parent netConnection (future server to server communication)	
IMediaStreamPlay	**getPlayer**() Get underlying player (IMediaStreamPlay) object	
java.util.List	**getPlayPackets**() Get all available live packets	
WMSProperties	**getProperties**() Get mediaStream properties	
int	**getPublishAudioCodecId**() Get the codec id of the most recently published audio packet	
int	**getPublishVideoCodecId**() Get the codec id of the most recently published video packet	
String	**getQueryStr**() Get play/publish name query string.	
int	**getReceiveVideoFPS**() Set frame per seconds for video (not currently implemented)	
AMFObj	**getRespAMFAudioObj**() Get audio response channel object	
AMFObj	**getRespAMFDataObj**() Get data response channel object	
AMFObj	**getRespAMFVideoObj**() Get video response channel object	
RTPStream	**getRTPStream**() Get the RTP based stream this stream is associated with	
int	**getSrc**() Get the stream id	
java.io.File	**getStreamFileForRead**() Get the File object to read from a stream (get stream name, ext and query from stream object)	
java.io.File	**getStreamFileForRead**(String name, String ext, String query) Get the File object to read from a stream (specify name, ext and query)	
java.io.File	**getStreamFileForWrite**() Get the File object to write to a stream (get stream name, ext and query from stream object)	

java.io.File	**getStreamFileForWrite**(String name, String ext, String query)	
	Get the File object to write to a stream (specify name, ext and query)	
MediaStreamMap	**getStreams**()	
	Get parent mediaStreamMap (owned by applicationInstance)	
String	**getStreamType**()	
	Get mediaStream streamType	
String	**getUniqueStreamIdStr**()	
	Get a string that uniquely identifies this stream	
AMFPacket	**getVideoCodecConfigPacket**(long timecode)	
	Get video codec configuration packet (needed for H.264/AAC playback)	
int	**getVideoMissing**()	
	Get number of video bytes missing from current audio packet	
int	**getVideoSize**()	
	Get the size of the current video packet that is being streamed from the client to the server	
long	**getVideoTC**()	
	Get last absolute video timecode (milliseconds) sent to mediaStream	
void	**handleCallback**(com.wowza.wms.request.RequestFunction function)	
	Routes request function to callback handler onStatus, onPlayStatus or [method/handler]	
boolean	**idle**()	
	Allow the mediaStream to perform idle work (not currently in use)	
long	**incrementMediaInBytes**(long increment)	
	Increment the number of mediaStream bytes received	
long	**incrementMediaLossBytes**(long bytes, long count)	
	Increment the number of mediaStream loss bytes sent and number of packets sent	
long	**incrementMediaOutBytes**(long bytes, long count)	
	Increment the number of mediaStream bytes sent and number of packets sent	
void	**init**(MediaStreamMap parent, int src, WMSProperties properties)	
	Initialize the mediaStream object after creation.	
void	**initLiveStreamRepeating**(String liveStreamPacketizer, String liveStreamRepeater)	
	Initialize this stream for live stream repeating	
boolean	**isAppend**()	
	Is append to media file (only valid if isRecord)	
boolean	**isClustered**()	
	not used	
boolean	**isMediaCasterPlay**()	
	Is MediaCaster play enabled (if true, will trigger MediaCaster startup)	
boolean	**isMergeOnMetadata**()	
	If true, merge incoming onMetadata events with the current onMetdata event data.	
boolean	**isOpen**()	
	Is mediaStream open	

boolean	**isPlay**()	
	Is the stream a play stream (vs a publish stream)	
boolean	**isPlaying**()	
	Is mediaStream playing (or paused - false)	
boolean	**isPublishStreamReady**(boolean checkAudio, boolean checkVideo)	
	Returns true if the publishing stream contains enough video/audio data to start playback	
boolean	**isReceiveAudio**()	
	Is client currently receiving audio.	
boolean	**isReceiveVideo**()	
	Is client currently receiving video.	
boolean	**isRecord**()	
	Is this stream being recorded to a file	
boolean	**isSendPlayStopLogEvent**()	
	Get need to send a log event for stop	
boolean	**isSendPublishStopLogEvent**()	
	Get need to send a log event for publishing	
boolean	**isSendRecordStopLogEvent**()	
	Get need to send a log event for recording	
boolean	**isTranscodeResult**()	
	Is this stream the result of a transcode operation.	
boolean	**isVideoH264SEIListenerEmpty**()	
	Is H.264 SEI listener list empty.	
double	**length**()	
	Get length/duration (seconds) of media file pointed to by mediaStream	
void	**notifyActionOnCodecInfoAudio**(com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio)	
	Notify client listeners of audio codec information change	
void	**notifyActionOnCodecInfoVideo**(com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)	
	Notify client listeners of video codec information change	
void	**notifyActionOnMetaData**(**AMFPacket** metaDataPacket)	
	Notify client listeners of onMetaData change	
void	**notifyActionPause**(boolean isPause, long location)	
	Notify client listeners of pause action	
void	**notifyActionPauseRaw**(boolean isPause, long location)	
	Notify client listeners of pauseRaw action	
void	**notifyActionPlay**(String streamName, double playStart, double playLen, int playReset)	
	Notify client listeners of play action	
void	**notifyActionPublish**(String streamName, boolean isRecord, boolean isAppend)	
	Notify client listeners of publish action	

void	**notifyActionSeek**(double location) Notify client listeners of seek action
void	**notifyActionStop**() Notify client listeners of stop action
void	**notifyActionUnPublish**(String streamName, boolean isRecord, boolean isAppend) Notify client listeners of unpublish action
void	**notifyVideoH264Packet**(AMFPacket packet, com.wowza.wms.media.h264.H264SEIMessages seiMessages) Notify H.264 SEI listener.
void	**packetComplete**() Invoked by requestAdapter when at the end of a set of packets
void	**publish**() Publish mediaStream
void	**putDvrRecorder**(String name, ILiveStreamDvrRecorder dvr) Add a live stream dvr to this stream
void	**putLiveStreamTranscoder**(String name, ILiveStreamTranscoder liveStreamTranscoder) Add a live stream transcoder to this stream
void	**registerCallback**(String handlerName, IMediaStreamCallback callback) Register a callback handler
void	**registerOnPlayStatus**(IMediaStreamCallback callback) Register onPlayStatus handler
void	**registerOnStatus**(IMediaStreamCallback callback) Register onStatus handler
void	**removeClientListener**(IMediaStreamActionNotify actionListener) Remove client listener.
void	**removeClientListener**(IMediaStreamActionNotify2 actionListener) Remove client listener.
void	**removeClientListener**(IMediaStreamActionNotify3 actionListener) Remove client listener.
ILiveStreamDvrRecorder	**removeDvrRecorder**(String name) Remove a live stream dvr by name
ILiveStreamTranscoder	**removeLiveStreamTranscoder**(String name) Remove a live stream transcoder by name
void	**removeVideoH264SEIListener**(IMediaStreamH264SEINotify h264SEIListener) Remove an H.264 SEI listener.
void	**send**(String handlerName) Call client side NetStream method/handler with no parameters
void	**send**(String handlerName, Object[] params) Call client side NetStream method/handler

void		`sendAMF3`(String handlerName) Call client side NetStream method/handler with no parameters.
void		`sendAMF3`(String handlerName, Object[] params) Call client side NetStream method/handler.
int		`sendControlBytes`(int controlType, java.io.OutputStream out) Send playback control bytes.
void		`sendDirect`(String handlerName) Call client side NetStream method/handler and send event to underlying stream (will record event)
void		`sendDirect`(String handlerName, Object[] params) Call client side NetStream method/handler and send event to underlying stream (will record event)
void		`sendDirectAMF3`(String handlerName) Call client side NetStream method/handler and send event to underlying stream (will record event).
void		`sendDirectAMF3`(String handlerName, Object[] params) Call client side NetStream method/handler and send event to underlying stream (will record event).
int		`sendLivePlaySeek`(java.io.OutputStream out, String name, long timecode) Send onStatus(NetStream.Seek.Notify) event
int		`sendLivePlayStart`(java.io.OutputStream out, String name, long timecode, long timecodeOffset) Send onStatus(NetStream.Play.Start) event
int		`sendLivePlaySwitch`(java.io.OutputStream out, String name, long timecode) Send onStatus(NetStream.Play.Transition) event
int		`sendPauseNotify`(long timecode, String name) Send onStatus(NetStream.Pause.Notify) event
int		`sendPauseNotify`(java.io.OutputStream out, long timecode, String name) Send onStatus(NetStream.Pause.Notify) event.
int		`sendPlayReset`(java.io.OutputStream out, String name) Send onStatus(NetStream.Play.Reset) event.
int		`sendPlayReset`(String name) Send onStatus(NetStream.Play.Reset) event
int		`sendPlaySeek`(long location, long seekLocation, String name) Send onStatus(NetStream.Seek.Notify) event.
int		`sendPlaySeek`(java.io.OutputStream out, long location, long seekLocation, String name) Send onStatus(NetStream.Seek.Notify) event.
int		`sendPlaySeek`(java.io.OutputStream out, long location, long seekLocation, String name, java.util.List seekTypes) Send onStatus(NetStream.Seek.Notify) event.

	int	`sendPlayStart`(java.io.OutputStream out, String name, boolean isSwitch, boolean isLive, long timecode, java.util.List seekTypes) Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch).
	int	`sendPlayStart`(java.io.OutputStream out, String name, boolean isSwitch, long timecode) Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch).
	int	`sendPlayStart`(java.io.OutputStream out, String name, boolean isSwitch, long timecode, java.util.List seekTypes) Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch).
	int	`sendPlayStart`(String name, long timecode) Send onStatus(NetStream.Play.Start) event
	int	`sendPlayStatus`(long timecode, int statusType, double duration, double bytesSent) Send onPlayStatus(NetStream.Play.Switch, NetStream.Play.Complete, NetStream.Play.Stop) event
	int	`sendPlayStatus`(java.io.OutputStream out, long timecode, int statusType, double duration, double bytesSent) Send onPlayStatus(NetStream.Play.Switch, NetStream.Play.Complete, NetStream.Play.Stop) event.
	int	`sendPlayStop`(long location, String name) Send onStatus(NetStream.Play.Stop) event
	int	`sendPlayStop`(java.io.OutputStream out, long location, String name) Send onStatus(NetStream.Play.Stop) event.
	int	`sendPlaySwitch`(java.io.OutputStream out, String name, boolean isSwitch, long timecode) Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch).
	int	`sendPlaySwitch`(String name, long timecode) Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch).
	int	`sendStreamNotFound`(java.io.OutputStream out, String name) Send onStatus(NetStream.Play.StreamNotFound) event.
	int	`sendStreamNotFound`(String name) Send onStatus(NetStream.Play.StreamNotFound) event
	int	`sendUnpauseNotify`(long location, String name) Send onStatus(NetStream.Unpause.Notify) event
	int	`sendUnpauseNotify`(java.io.OutputStream out, long location, String name) Send onStatus(NetStream.Unpause.Notify) event.
	int	`sendUnpauseNotify`(java.io.OutputStream out, long location, String name, java.util.List seekTypes) Send onStatus(NetStream.Unpause.Notify) event
	int	`sendVODPlaySwitch`(java.io.OutputStream out, String name, long timecode) Send onStatus(NetStream.Play.Transition) event

	void	setAppend(boolean isAppend) Set is append to media file (only valid if isRecord)
	void	setAudioSize(int audioSize) Set the size of the current audio packet that is being streamed from the client to the server
	void	setAudioTC(long audioTC) Set last absolute audio timecode (milliseconds) sent to mediaStream
	void	setAudioTC(long audioTC, boolean isAbsolute) Set last absolute audio timecode (milliseconds) sent to mediaStream
	void	setBufferTime(int bufferTime) Set buffer time for mediaStream (milliseconds)
	void	setClient(IClient client) Set parent client connection
	void	setClustered(boolean isClustered) not used
	void	setDataSize(int dataSize) Set the size of the current data packet that is being streamed from the client to the server
	void	setDataTC(long dataTC) Set last absolute data timecode (milliseconds) sent to mediaStream
	void	setDataTC(long dataTC, boolean isAbsolute) Set last absolute data timecode (milliseconds) sent to mediaStream
	void	setDataType(int dataType) Set the data packet type: (IVHost.CONTENTTYPE_DATA0 or IVHost.CONTENTTYPE_DATA3)
	void	setDvrRecorder(String recorderName) Set the DVR Recorder that this stream is using
	void	setDvrRecorderList(String recorderList) Set the comma separated list of DVR Recorder names being used by this stream (see conf/Dvr.xml)
	void	setExt(String ext) Set media file extension
	void	setFastPlaySettings(FastPlaySettings fastPlaySettings) Set fastPlay settings
	void	setHeaderSize(int headerSize) Set the last packet header size (debugging)
	void	setHTTPStreamerSession(IHTTPStreamerSession httpStreamerSession) Set the HTTPStreamer session associated with this stream
	void	setIsPlaying(boolean isPlaying) Set is mediaStream playing
	void	setLiveStreamPacketizer(String liveStreamPacketizer) Set the live stream packetizer that this stream is using

void	**setLiveStreamPacketizerList**(String liveStreamPacketizerList) Set the comma separated list of LiveStreamPacketizers names being used by this stream (see conf/LiveStreamPacketizers.xml)	
void	**setLiveStreamRepeater**(String liveStreamRepeater) Set the live stream repeater name for the stream	
void	**setLiveStreamTranscoderList**(String liveStreamTranscoderList) Set the comma separated list of LiveStreamTranscoders names being used by this stream (see conf/LiveStreamTranscoders.xml)	
void	**setMediaCasterPlay**(boolean isMediaCasterPlay) Is MediaCaster play enabled (if true, will trigger MediaCaster startup)	
void	**setMergeOnMetadata**(boolean mergeOnMetadata) If true, merge incoming onMetadata events with the current onMetdata event data.	
void	**setMetaDataProvider**(IMediaStreamMetaDataProvider metaDataProvider) Set the metaData provider	
void	**setName**(String name) Set stream name	
void	**setName**(String name, String ext) Set stream name and extension.	
void	**setName**(String name, String oldName, String ext, String queryStr, double playStart, double playLen, int playTransition) Set stream name, extension, query string, play start, play len and play reset from play command.	
void	**setNetConnection**(com.wowza.wms.netconnection.INetConnection netConnection) Set parent netConnection (future server to server communication)	
void	**setOpen**(boolean isOpen) Set mediaStream open	
void	**setPlay**(boolean isPlay) Set is the stream a play stream (vs a publish stream)	
void	**setPlayer**(IMediaStreamPlay player) Set underlying player (IMediaStreamPlay) object	
void	**setPublishAudioCodecId**(int publishAudioCodecId) Set the codec id of the most recently published audio packet	
void	**setPublishVideoCodecId**(int publishVideoCodecId) Set the codec id of the most recently published video packet	
void	**setQueryStr**(String queryStr) Set play/publish name query string.	
void	**setReceiveAudio**(boolean receiveAudio) Set receive audio	
void	**setReceiveVideo**(boolean receiveVideo) Set receive video	
void	**setReceiveVideoFPS**(int receiveVideoFPS) Set frame per second for video (not currently implemented)	

void	**setRecord**(boolean isRecord)
	Set is the stream being recorded
void	**setRTPStream**(RTPStream rtpStream)
	Set the RTP based stream this stream is associated with
void	**setSendPlayStopLogEvent**(boolean sendPlayStopLogEvent)
	Set need to send a log event for stop
void	**setSendPublishStopLogEvent**(boolean sendPlayStopLogEvent)
	Set need to send a log event for publishing
void	**setSendRecordStopLogEvent**(boolean sendPlayStopLogEvent)
	Set need to send a log event for recording
void	**setSrc**(int src)
	Set stream id
void	**setStreamType**(String streamType)
	Set mediaStream streamType.
void	**setTranscodeResult**(boolean isTranscodeResult)
	Is this stream the result of a transcode operation.
void	**setVideoSize**(int videoSize)
	Set the size of the current video packet that is being streamed from the client to the server
void	**setVideoTC**(long videoTC)
	Set last absolute video timecode (milliseconds) sent to mediaStream
void	**setVideoTC**(long videoTC, boolean isAbsolute)
	Set last absolute video timecode (milliseconds) sent to mediaStream
void	**shutdown**()
	shutdown or close this mediaStream
long	**size**()
	Get size (bytes) of media file pointed to by mediaStream
void	**startAudioPacket**()
	Called when an audio packet is first being populated with data
void	**startDataPacket**()
	Called when a data packet is first being populated with data
void	**startPublishing**()
	Start publishing live stream
void	**startVideoPacket**()
	Called when a video packet is first being populated with data
void	**stopName**(String name, String oldName, String ext, String queryStr, double playStart, double playLen, int playTransition)
	Stop stream name
void	**stopPublishing**()
	Stop publishing live stream

void	`switchName`(String name, String oldName, String ext, String queryStr, double playStart, double playLen, int playTransition) Switch to stream name	
void	`trim`() Trim mediaStream.	
void	`unregisterCallback`(String handlerName) Unregister a callback handler	
void	`unregisterOnPlayStatus`(`IMediaStreamCallback` callback) Unregister onPlayStatus handler	
void	`unregisterOnStatus`(`IMediaStreamCallback` callback) Unregister onStatus handler	
void	`updateLoggingDuration`() Update logging.MDC with mediaStream logging information	
void	`updateLoggingValues`() Update logging.MDC with mediaStream logging information	

Fields

READACCESS

`public static final int` **`READACCESS`**

Constant value: **0**

WRITEACCESS

`public static final int` **`WRITEACCESS`**

Constant value: **1**

AUDIOSAMPLEACCESS

`public static final int` **`AUDIOSAMPLEACCESS`**

Constant value: **2**

VIDEOSAMPLEACCESS

`public static final int` **`VIDEOSAMPLEACCESS`**

Constant value: **3**

Methods

init

```
public void init(MediaStreamMap parent,
        int src,
        WMSProperties properties)
```

Initialize the mediaStream object after creation. Creation and initialization are separated due to the order of the creation events.

Parameters:

parent - parent mediaStreamMap of the parent applicationInstance

src - stream id for this stream

properties - initial properties as defined in Streams.xml

getBufferTime

```
public int getBufferTime()
```

Get buffer time for mediaStream (milliseconds)

Returns:

buffer time (millseconds)

setBufferTime

```
public void setBufferTime(int bufferTime)
```

Set buffer time for mediaStream (milliseconds)

Parameters:

bufferTime - buffer time (millseconds)

isPlaying

```
public boolean isPlaying()
```

Is mediaStream playing (or paused - false)

Returns:

is playing

setIsPlaying

```
public void setIsPlaying(boolean isPlaying)
```

Set is mediaStream playing

Parameters:

isPlaying

getAudioSize

```
public int getAudioSize()
```

Get the size of the current audio packet that is being streamed from the client to the server

Returns:

size

getVideoSize

```
public int getVideoSize()
```

Get the size of the current video packet that is being streamed from the client to the server

Returns:
size

getDataSize

```
public int getDataSize()
```

Get the size of the current data packet that is being streamed from the client to the server

Returns:
size

setAudioSize

```
public void setAudioSize(int audioSize)
```

Set the size of the current audio packet that is being streamed from the client to the server

Parameters:
audioSize

setVideoSize

```
public void setVideoSize(int videoSize)
```

Set the size of the current video packet that is being streamed from the client to the server

Parameters:
videoSize

setDataSize

```
public void setDataSize(int dataSize)
```

Set the size of the current data packet that is being streamed from the client to the server

Parameters:
dataSize

getSrc

```
public int getSrc()
```

Get the stream id

Returns:
stream id

setSrc

```
public void setSrc(int src)
```

Set stream id

Parameters:
src - stream id

getName

```
public String getName()
```

Get stream name

Returns:
stream name

setName

```
public void setName(String name)
```

Set stream name

Parameters:
name - stream name

setName

```
public void setName(String name,
        String ext)
```

Set stream name and extension. Example: if play command sent flv:test name=test, ext=flv.

Parameters:
name - stream name
ext - stream extension

setName

```
public void setName(String name,
        String oldName,
        String ext,
        String queryStr,
        double playStart,
        double playLen,
        int playTransition)
```

Set stream name, extension, query string, play start, play len and play reset from play command.

Parameters:
name - stream name
oldName - old stream name
ext - stream extension
queryStr - query string
playStart - play start
playLen - play len
playTransition - play transition (see MediaBase.PLAYTRANSITION_*)

switchName

```
public void switchName(String name,
        String oldName,
        String ext,
        String queryStr,
        double playStart,
        double playLen,
        int playTransition)
```

Switch to stream name

Parameters:

name - stream name

oldName - old stream name

ext - stream extension

queryStr - query string

playStart - play start

playLen - play len

playTransition - play transition (see MediaBase.PLAYTRANSITION_*)

stopName

```
public void stopName(String name,
        String oldName,
        String ext,
        String queryStr,
        double playStart,
        double playLen,
        int playTransition)
```

Stop stream name

Parameters:

name - stream name

oldName - old stream name

ext - stream extension

queryStr - query string

playStart - play start

playLen - play len

playTransition - play transition (see MediaBase.PLAYTRANSITION_*)

shutdown

```
public void shutdown()
```

shutdown or close this mediaStream

getAudioTC

```
public long getAudioTC()
```

Get last absolute audio timecode (milliseconds) sent to mediaStream

Returns:

last absolute audio timecode (milliseconds)

setAudioTC

```
public void setAudioTC(long audioTC,
        boolean isAbsolute)
```

Set last absolute audio timecode (milliseconds) sent to mediaStream

Parameters:
audioTC - timecode (millseconds)
isAbsolute - is the timecode value relative to last timecode or absolute

setAudioTC

```
public void setAudioTC(long audioTC)
```

Set last absolute audio timecode (milliseconds) sent to mediaStream

Parameters:
audioTC - timecode (millseconds)

getVideoTC

```
public long getVideoTC()
```

Get last absolute video timecode (milliseconds) sent to mediaStream

Returns:
last absolute video timecode (milliseconds)

setVideoTC

```
public void setVideoTC(long videoTC,
        boolean isAbsolute)
```

Set last absolute video timecode (milliseconds) sent to mediaStream

Parameters:
videoTC - timecode (millseconds)
isAbsolute - is the timecode value relative to last timecode or absolute

setVideoTC

```
public void setVideoTC(long videoTC)
```

Set last absolute video timecode (milliseconds) sent to mediaStream

Parameters:
videoTC - timecode (millseconds)

getDataTC

```
public long getDataTC()
```

Get last absolute data timecode (milliseconds) sent to mediaStream

Returns:
last absolute data timecode (milliseconds)

setDataTC

```
public void setDataTC(long dataTC,
        boolean isAbsolute)
```

Set last absolute data timecode (milliseconds) sent to mediaStream

Parameters:
dataTC - timecode (millseconds)
isAbsolute - is the timecode value relative to last timecode or absolute

getDataType

```
public int getDataType()
```

Get the data packet type: (IVHost.CONTENTTYPE_DATA0 or IVHost.CONTENTTYPE_DATA3)

Returns:
data packet type

setDataType

```
public void setDataType(int dataType)
```

Set the data packet type: (IVHost.CONTENTTYPE_DATA0 or IVHost.CONTENTTYPE_DATA3)

Parameters:
dataType - data packet type

setDataTC

```
public void setDataTC(long dataTC)
```

Set last absolute data timecode (milliseconds) sent to mediaStream

Parameters:
dataTC - timecode (millseconds)

isRecord

```
public boolean isRecord()
```

Is this stream being recorded to a file

Returns:
is stream being recorded

setRecord

```
public void setRecord(boolean isRecord)
```

Set is the stream being recorded

Parameters:
isRecord

isPlay

public boolean **isPlay**()

Is the stream a play stream (vs a publish stream)

Returns:
is play stream (has nothing to do with if its playing just that its play vs publish)

setPlay

public void **setPlay**(boolean isPlay)

Set is the stream a play stream (vs a publish stream)

Parameters:
isPlay - is play stream (has nothing to do with if its playing just that its play vs publish)

idle

public boolean **idle**()

Allow the mediaStream to perform idle work (not currently in use)

Returns:
true if it did some work

getClientId

public int **getClientId**()

Get parent client connection (id)

Returns:
parent client connection (id)

getClient

public IClient **getClient**()

Get parent client connection

Returns:
parent client connection

getNetConnection

public com.wowza.wms.netconnection.INetConnection **getNetConnection**()

Get parent netConnection (future server to server communication)

Returns:
parent netConnection connection

setNetConnection

public void **setNetConnection**(com.wowza.wms.netconnection.INetConnection netConnection)

Set parent netConnection (future server to server communication)

Parameters:
netConnection - netConnection connection

setClient

public void **setClient**(IClient client)

Set parent client connection

Parameters:
client - parent client connection

getStreams

public MediaStreamMap **getStreams**()

Get parent mediaStreamMap (owned by applicationInstance)

Returns:
parent mediaStreamMap

packetComplete

public void **packetComplete**()

Invoked by requestAdapter when at the end of a set of packets

sendStreamNotFound

public int **sendStreamNotFound**(String name)

Send onStatus(NetStream.Play.StreamNotFound) event

Parameters:
name - stream name

Returns:
bytes sent to client

sendStreamNotFound

public int **sendStreamNotFound**(java.io.OutputStream out,
        String name)

Send onStatus(NetStream.Play.StreamNotFound) event. Send directly to OutputStream.

Parameters:
out - OutputStream
name - stream name

Returns:
bytes sent to client

sendLivePlayStart

```
public int sendLivePlayStart(java.io.OutputStream out,
        String name,
        long timecode,
        long timecodeOffset)
```

Send onStatus(NetStream.Play.Start) event

Parameters:
out - OutputStream
name - stream name
timecode - timecode
timecodeOffset - timecode offset

Returns:
bytes sent to client

sendVODPlaySwitch

```
public int sendVODPlaySwitch(java.io.OutputStream out,
        String name,
        long timecode)
```

Send onStatus(NetStream.Play.Transition) event

Parameters:
out - OutputStream
name - stream name
timecode - timecode

Returns:
bytes sent to client

sendLivePlaySwitch

```
public int sendLivePlaySwitch(java.io.OutputStream out,
        String name,
        long timecode)
```

Send onStatus(NetStream.Play.Transition) event

Parameters:
out - OutputStream
name - stream name
timecode - timecode

Returns:
bytes sent to client

sendLivePlaySeek

```
public int sendLivePlaySeek(java.io.OutputStream out,
        String name,
        long timecode)
```

Send onStatus(NetStream.Seek.Notify) event

Parameters:
out - OutputStream

        name - stream name
        timecode - timecode

   Returns:
        bytes sent to client

sendPlayReset

```
public int sendPlayReset(String name)
```

   Send onStatus(NetStream.Play.Reset) event

   Parameters:
        name - stream name

   Returns:
        bytes sent to client

sendPlayReset

```
public int sendPlayReset(java.io.OutputStream out,
        String name)
```

   Send onStatus(NetStream.Play.Reset) event. Send directly to OutputStream.

   Parameters:
        out - OutputStream
        name - stream name

   Returns:
        bytes sent to client

sendPlayStop

```
public int sendPlayStop(long location,
        String name)
```

   Send onStatus(NetStream.Play.Stop) event

   Parameters:
        location - timecode where play stopped
        name - stream name

   Returns:
        bytes sent to client

sendPlayStop

```
public int sendPlayStop(java.io.OutputStream out,
        long location,
        String name)
```

   Send onStatus(NetStream.Play.Stop) event. Send directly to OutputStream

   Parameters:
        out - OutputStream
        location - timecode where play stopped
        name - stream name

Returns:

bytes sent to client

sendPlaySeek

```
public int sendPlaySeek(java.io.OutputStream out,
        long location,
        long seekLocation,
        String name,
        java.util.List seekTypes)
```

Send onStatus(NetStream.Seek.Notify) event.

Parameters:

out - OutputStream

location - request location of seek

seekLocation - result location of seek

name - stream name

seekTypes - list of commands to respond to (seek, unpause, play)

Returns:

bytes sent to client

sendPlaySeek

```
public int sendPlaySeek(long location,
        long seekLocation,
        String name)
```

Send onStatus(NetStream.Seek.Notify) event.

Parameters:

location - request location of seek

seekLocation - result location of seek

name - stream name

Returns:

bytes sent to client

sendPlaySeek

```
public int sendPlaySeek(java.io.OutputStream out,
        long location,
        long seekLocation,
        String name)
```

Send onStatus(NetStream.Seek.Notify) event. Send directly to OutputStream

Parameters:

out - OutputStream

location - request location of seek

seekLocation - result location of seek

name - stream name

Returns:

bytes sent to client

sendPlayStart

```
public int sendPlayStart(String name,
        long timecode)
```

Send onStatus(NetStream.Play.Start) event

Parameters:
 name - stream name

Returns:
 bytes sent to client

---

sendPlaySwitch

```
public int sendPlaySwitch(String name,
        long timecode)
```

Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch).

Parameters:
 name - stream name
 timecode - timecode of event

Returns:
 bytes sent to client

---

sendPlaySwitch

```
public int sendPlaySwitch(java.io.OutputStream out,
        String name,
        boolean isSwitch,
        long timecode)
```

Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch). Send directly to OutputStream

Parameters:
 out - OutputStream
 name - stream name
 isSwitch - is this a switch or a start
 timecode - timecode of event

Returns:
 bytes sent to client

---

sendPlayStart

```
public int sendPlayStart(java.io.OutputStream out,
        String name,
        boolean isSwitch,
        boolean isLive,
        long timecode,
        java.util.List seekTypes)
```

Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch). Send directly to OutputStream

Parameters:
 out - OutputStream

> name - stream name
> isSwitch - is this a switch or a start
> isLive - is the stream live
> timecode - timecode of event
> seekTypes - commands to respond to (seek, unpause, play)

sendPlayStart

```
public int sendPlayStart(java.io.OutputStream out,
        String name,
        boolean isSwitch,
        long timecode,
        java.util.List seekTypes)
```

Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch). Send directly to OutputStream

Parameters:
> out - OutputStream
> name - stream name
> isSwitch - is this a switch or a start
> timecode - timecode of event
> seekTypes - commands to respond to (seek, unpause, play)

Returns:
> bytes sent to client

sendPlayStart

```
public int sendPlayStart(java.io.OutputStream out,
        String name,
        boolean isSwitch,
        long timecode)
```

Send onStatus(NetStream.Play.Start) event (it is not a typo, this also send play start but with different control codes for media switch). Send directly to OutputStream

Parameters:
> out - OutputStream
> name - stream name
> isSwitch - is this a switch or a start
> timecode - timecode of event

Returns:
> bytes sent to client

sendPlayStatus

```
public int sendPlayStatus(long timecode,
        int statusType,
        double duration,
        double bytesSent)
```

Send onPlayStatus(NetStream.Play.Switch, NetStream.Play.Complete, NetStream.Play.Stop) event

Parameters:
> timecode - timecode of event
> statusType - status type IMediaStreamPlay.PLAYSTATUSTYPE_*
> duration - (not used)
> bytesSent - (not used)

Returns:
> bytes sent to client

---

sendPlayStatus

```
public int sendPlayStatus(java.io.OutputStream out,
        long timecode,
        int statusType,
        double duration,
        double bytesSent)
```

> Send onPlayStatus(NetStream.Play.Switch, NetStream.Play.Complete, NetStream.Play.Stop) event. Send directly to OutputStream.

> **Parameters:**
> > out - OutputStream
> > timecode - timecode of event
> > statusType - status type IMediaStreamPlay.PLAYSTATUSTYPE_*
> > duration - (not used)
> > bytesSent - (not used)

> **Returns:**
> > bytes sent to client

---

sendPauseNotify

```
public int sendPauseNotify(long timecode,
        String name)
```

> Send onStatus(NetStream.Pause.Notify) event

> **Parameters:**
> > timecode - timecode of event
> > name - stream name

> **Returns:**
> > bytes sent to client

---

sendPauseNotify

```
public int sendPauseNotify(java.io.OutputStream out,
        long timecode,
        String name)
```

> Send onStatus(NetStream.Pause.Notify) event. Send directly to OutputStream.

> **Parameters:**
> > out - OutputStream
> > timecode - timecode of event
> > name - stream name

> **Returns:**
> > bytes sent to client

---

sendUnpauseNotify

```
public int sendUnpauseNotify(java.io.OutputStream out,
        long location,
        String name,
        java.util.List seekTypes)
```

Send onStatus(NetStream.Unpause.Notify) event

> **Parameters:**
> > out - OutputStream
> > `location` - timecode of event
> > `name` - stream name
> > `seekTypes` - list of operations to respond to (seek, play, unpause)

> **Returns:**
> > bytes sent to client

---

sendUnpauseNotify

```
public int sendUnpauseNotify(long location,
        String name)
```

Send onStatus(NetStream.Unpause.Notify) event

> **Parameters:**
> > `location` - timecode of event
> > `name` - stream name

> **Returns:**
> > bytes sent to client

---

sendUnpauseNotify

```
public int sendUnpauseNotify(java.io.OutputStream out,
        long location,
        String name)
```

Send onStatus(NetStream.Unpause.Notify) event. Send directly to OutputStream.

> **Parameters:**
> > out - OutputStream
> > `location` - timecode of event
> > `name` - stream name

> **Returns:**
> > bytes sent to client

---

isAppend

```
public boolean isAppend()
```

Is append to media file (only valid if isRecord)

> **Returns:**
> > is appending or rewriting media file

---

setAppend

```
public void setAppend(boolean isAppend)
```

Set is append to media file (only valid if isRecord)

> **Parameters:**
> > `isAppend` - is appending or rewriting media file

setPlayer

`public void` **`setPlayer`**`(`<u>`IMediaStreamPlay`</u>` player)`

Set underlying player (IMediaStreamPlay) object

Parameters:
`player` - underlying player (IMediaStreamPlay) object

getPlayer

`public` <u>`IMediaStreamPlay`</u> **`getPlayer`**`()`

Get underlying player (IMediaStreamPlay) object

Returns:
underlying player (IMediaStreamPlay) object

getAudioMissing

`public int` **`getAudioMissing`**`()`

Get number of audio bytes missing from current audio packet

Returns:
number of bytes missing

getVideoMissing

`public int` **`getVideoMissing`**`()`

Get number of video bytes missing from current audio packet

Returns:
number of bytes missing

getDataMissing

`public int` **`getDataMissing`**`()`

Get number of data bytes missing from current audio packet

Returns:
number of bytes missing

addVideoData

```
public void addVideoData(byte[] data,
        int offset,
        int size)
```

Add data to current video packet

Parameters:
`data` - byte array
`offset` - offset in byte array
`size` - size of data to add

addAudioData

```
public void addAudioData(byte[] data,
        int offset,
        int size)
```

Add data to current audio packet

Parameters:
data - byte array
offset - offset in byte array
size - size of data to add

addDataData

```
public void addDataData(byte[] data,
        int offset,
        int size)
```

Add data to current data packet

Parameters:
data - byte array
offset - offset in byte array
size - size of data to add

getProperties

```
public WMSProperties getProperties()
```

Get mediaStream properties

Returns:
properties

getPlayPackets

```
public java.util.List getPlayPackets()
```

Get all available live packets

Returns:
play packets

getMaxTimecode

```
public long getMaxTimecode()
```

Get the timecode of the latest received packet

Returns:
timecode of the latest received packet

getLastKeyFrame

```
public AMFPacket getLastKeyFrame()
```

Get most recent video key frame

Returns:
    play packets

getLastPacket

`public` [`AMFPacket`](#) **`getLastPacket`**`()`

    Get most recent live packet

    Returns:
        most recent live packet or null or no live packets

getStreamType

`public String` **`getStreamType`**`()`

    Get mediaStream streamType

    Returns:
        streamType

setStreamType

`public void` **`setStreamType`**`(String streamType)`

    Set mediaStream streamType. This method will not change the type of the current stream.

    Parameters:
        `streamType`

sendDirectAMF3

`public void` **`sendDirectAMF3`**`(String handlerName,`
        `Object[] params)`

    Call client side NetStream method/handler and send event to underlying stream (will record event). Force AMF3 encoding.

    Parameters:
        `handlerName` - handler name
        `params` - variable list of parameters. All parameters will be wrapped in AMFDataObj.

sendDirect

`public void` **`sendDirect`**`(String handlerName,`
        `Object[] params)`

    Call client side NetStream method/handler and send event to underlying stream (will record event)

    Parameters:
        `handlerName` - handler name
        `params` - variable list of parameters. All parameters will be wrapped in AMFDataObj.

sendDirectAMF3

`public void` **`sendDirectAMF3`**`(String handlerName)`

    Call client side NetStream method/handler and send event to underlying stream (will record event). Force AMF3 encoding.

>> **Parameters:**
>> handlerName - handler name

---

sendDirect

```
public void sendDirect(String handlerName)
```

Call client side NetStream method/handler and send event to underlying stream (will record event)

> **Parameters:**
> handlerName - handler name

---

sendAMF3

```
public void sendAMF3(String handlerName,
        Object[] params)
```

Call client side NetStream method/handler. Force AMF3 encoding.

> **Parameters:**
> handlerName - handler name
> params - variable list of parameters. All parameters will be wrapped in AMFDataObj.

---

send

```
public void send(String handlerName,
        Object[] params)
```

Call client side NetStream method/handler

> **Parameters:**
> handlerName - handler name
> params - variable list of parameters. All parameters will be wrapped in AMFDataObj.

---

sendAMF3

```
public void sendAMF3(String handlerName)
```

Call client side NetStream method/handler with no parameters. Force AMF3 encoding.

> **Parameters:**
> handlerName - handler name

---

send

```
public void send(String handlerName)
```

Call client side NetStream method/handler with no parameters

> **Parameters:**
> handlerName - handler name

---

close

```
public void close()
```

Close mediaStream

---

isOpen

`public boolean` **`isOpen`**`()`

Is mediaStream open

Returns:
is mediaStream open

setOpen

`public void` **`setOpen`**`(boolean isOpen)`

Set mediaStream open

Parameters:
`isOpen` - mediaStream open

getFastPlaySettings

`public` <u>`FastPlaySettings`</u> **`getFastPlaySettings`**`()`

Get current fastPlay settings

Returns:
fastPlay settings

setFastPlaySettings

`public void` **`setFastPlaySettings`**`(`<u>`FastPlaySettings`</u>` fastPlaySettings)`

Set fastPlay settings

Parameters:
`fastPlaySettings` - fastPlay settings

clearFastPlaySettings

`public void` **`clearFastPlaySettings`**`()`

Clear fastPlay settings

isReceiveAudio

`public boolean` **`isReceiveAudio`**`()`

Is client currently receiving audio. Controlled by client side call receiveAudio.

Returns:
receive audio

setReceiveAudio

`public void` **`setReceiveAudio`**`(boolean receiveAudio)`

Set receive audio

Parameters:

> receiveAudio - receive audio

---

isReceiveVideo

`public boolean **isReceiveVideo**()`

> Is client currently receiving video. Controlled by client side call receiveVideo

> **Returns:**
> > receive video

---

setReceiveVideo

`public void **setReceiveVideo**(boolean receiveVideo)`

> Set receive video

> **Parameters:**
> > receiveVideo - receive video

---

getReceiveVideoFPS

`public int **getReceiveVideoFPS**()`

> Set frame per seconds for video (not currently implemented)

> **Returns:**
> > video frames per second

---

setReceiveVideoFPS

`public void **setReceiveVideoFPS**(int receiveVideoFPS)`

> Set frame per second for video (not currently implemented)

> **Parameters:**
> > receiveVideoFPS - video frames per second

---

getMediaIOPerformance

`public IOPerformanceCounter **getMediaIOPerformance**()`

> Get IO performance counter

> **Returns:**
> > IO performance counter

---

incrementMediaOutBytes

`public long **incrementMediaOutBytes**(long bytes,
        long count)`

> Increment the number of mediaStream bytes sent and number of packets sent

> **Parameters:**
> > bytes - number of bytes sent
> > count - number of packets sent

> **Returns:**

---

total number of bytes sent (after increment)

incrementMediaLossBytes

```
public long incrementMediaLossBytes(long bytes,
        long count)
```

Increment the number of mediaStream loss bytes sent and number of packets sent

Parameters:
bytes - number of bytes sent
count - number of packets sent

Returns:
total number of bytes sent (after increment)

incrementMediaInBytes

```
public long incrementMediaInBytes(long increment)
```

Increment the number of mediaStream bytes received

Parameters:
increment - number of byte received

Returns:
total number of bytes received (after increment)

publish

```
public void publish()
```

Publish mediaStream

trim

```
public void trim()
```

Trim mediaStream. This method will remove live packets that are older than the live buffer size.

handleCallback

```
public void handleCallback(com.wowza.wms.request.RequestFunction function)
```

Routes request function to callback handler onStatus, onPlayStatus or [method/handler]

Parameters:
function - request function

unregisterCallback

```
public void unregisterCallback(String handlerName)
```

Unregister a callback handler

Parameters:
handlerName - handler name

registerCallback

```
public void registerCallback(String handlerName,
        IMediaStreamCallback callback)
```

Register a callback handler

Parameters:
handlerName - handler name
callback - callback object

unregisterOnStatus

```
public void unregisterOnStatus(IMediaStreamCallback callback)
```

Unregister onStatus handler

Parameters:
callback

registerOnStatus

```
public void registerOnStatus(IMediaStreamCallback callback)
```

Register onStatus handler

Parameters:
callback - callback object

unregisterOnPlayStatus

```
public void unregisterOnPlayStatus(IMediaStreamCallback callback)
```

Unregister onPlayStatus handler

Parameters:
callback - callback object

registerOnPlayStatus

```
public void registerOnPlayStatus(IMediaStreamCallback callback)
```

Register onPlayStatus handler

Parameters:
callback - callback object

addClientListener

```
public void addClientListener(IMediaStreamActionNotify actionListener)
```

Add client listener. Listens for (onPlay, onPublish, onPause, onSeek, onStop)

Parameters:
actionListener - listener

addClientListener

public void **addClientListener**(IMediaStreamActionNotify2 actionListener)

>Add client listener. Listens for (onPlay, onPublish, onPause, onSeek, onStop)

>>**Parameters:**
>>>actionListener - listener

addClientListener

public void **addClientListener**(IMediaStreamActionNotify3 actionListener)

>Add client listener. Listens for (onPlay, onPublish, onPause, onSeek, onStop)

>>**Parameters:**
>>>actionListener - listener

removeClientListener

public void **removeClientListener**(IMediaStreamActionNotify actionListener)

>Remove client listener. Listens for (onPlay, onPublish, onPause, onSeek, onStop)

>>**Parameters:**
>>>actionListener - listener

removeClientListener

public void **removeClientListener**(IMediaStreamActionNotify2 actionListener)

>Remove client listener. Listens for (onPlay, onPublish, onPause, onSeek, onStop)

>>**Parameters:**
>>>actionListener - listener

removeClientListener

public void **removeClientListener**(IMediaStreamActionNotify3 actionListener)

>Remove client listener. Listens for (onPlay, onPublish, onPause, onSeek, onStop)

>>**Parameters:**
>>>actionListener - listener

notifyActionPlay

public void **notifyActionPlay**(String streamName,
        double playStart,
        double playLen,
        int playReset)

>Notify client listeners of play action

>>**Parameters:**
>>>streamName - stream name
>>>playStart - play start
>>>playLen - play length
>>>playReset - play reset

notifyActionPauseRaw

public void **notifyActionPauseRaw**(boolean isPause,
        long location)

Notify client listeners of pauseRaw action

Parameters:
isPause - is pause or unpause
location - timecode (milliseconds) of action

notifyActionPause

public void **notifyActionPause**(boolean isPause,
        long location)

Notify client listeners of pause action

Parameters:
isPause - is pause or unpause
location - timecode (milliseconds) of action

notifyActionSeek

public void **notifyActionSeek**(double location)

Notify client listeners of seek action

Parameters:
location - timecode (milliseconds) of seek request

notifyActionPublish

public void **notifyActionPublish**(String streamName,
        boolean isRecord,
        boolean isAppend)

Notify client listeners of publish action

Parameters:
streamName - stream name
isRecord - is record or live
isAppend - is append if isRecord is true

notifyActionUnPublish

public void **notifyActionUnPublish**(String streamName,
        boolean isRecord,
        boolean isAppend)

Notify client listeners of unpublish action

Parameters:
streamName - stream name
isRecord - is record or live
isAppend - is append if isRecord is true

notifyActionOnMetaData

public void **notifyActionOnMetaData**(AMFPacket metaDataPacket)

> Notify client listeners of onMetaData change

> **Parameters:**
> > `metaDataPacket` - metaDataPacket

notifyActionOnCodecInfoVideo

public void **notifyActionOnCodecInfoVideo**(com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)

> Notify client listeners of video codec information change

> **Parameters:**
> > `codecInfoVideo` - video codec information

notifyActionOnCodecInfoAudio

public void **notifyActionOnCodecInfoAudio**(com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio)

> Notify client listeners of audio codec information change

> **Parameters:**
> > `codecInfoAudio` - audio codec information

notifyActionStop

public void **notifyActionStop**()

> Notify client listeners of stop action

isClustered

public boolean **isClustered**()

> not used

> **Returns:**
> > isClustered

setClustered

public void **setClustered**(boolean isClustered)

> not used

> **Parameters:**
> > isClustered

getCacheName

public String **getCacheName**()

> not used

>   **Returns:**
>   cache name

---

startPublishing

`public void `**`startPublishing`**`()`

>   Start publishing live stream

---

stopPublishing

`public void `**`stopPublishing`**`()`

>   Stop publishing live stream

---

getStreamFileForWrite

`public java.io.File `**`getStreamFileForWrite`**`()`

>   Get the File object to write to a stream (get stream name, ext and query from stream object)

>   **Returns:**
>   resultant File object

---

getStreamFileForWrite

`public java.io.File `**`getStreamFileForWrite`**`(String name,`
`        String ext,`
`        String query)`

>   Get the File object to write to a stream (specify name, ext and query)

>   **Parameters:**
>   name - stream name
>   ext - stream prefix (Ex. mp4:)
>   query - query part of stream name (Ex. mystream?param1=value1)

>   **Returns:**
>   resultant File object

---

getStreamFileForRead

`public java.io.File `**`getStreamFileForRead`**`()`

>   Get the File object to read from a stream (get stream name, ext and query from stream object)

>   **Returns:**
>   resultant File object

---

getStreamFileForRead

`public java.io.File `**`getStreamFileForRead`**`(String name,`
`        String ext,`
`        String query)`

>   Get the File object to read from a stream (specify name, ext and query)

>   **Parameters:**
>   name - stream name

ext - stream prefix (Ex. mp4:)
query - query part of stream name (Ex. mystream?param1=value1)

Returns:
resultant File object

sendControlBytes

```
public int sendControlBytes(int controlType,
        java.io.OutputStream out)
```

Send playback control bytes. Valid values are (0, 1, 4)

Parameters:
controlType - control types (0, 1, 4)
out - OutputStream

Returns:
bytes sent to client

getBurstStartStop

```
public byte[] getBurstStartStop(boolean isStart)
```

Get the dynamic streaming burst start/stop AMF packet

Parameters:
isStart - is start

Returns:
byte array with AMF packet

getRespAMFAudioObj

```
public AMFObj getRespAMFAudioObj()
```

Get audio response channel object

Returns:
audio response channel object

getRespAMFVideoObj

```
public AMFObj getRespAMFVideoObj()
```

Get video response channel object

Returns:
video response channel object

getRespAMFDataObj

```
public AMFObj getRespAMFDataObj()
```

Get data response channel object

Returns:
data response channel object

getQueryStr

```
public String getQueryStr()
```

Get play/publish name query string. Example: if play name is flv:test?param1=data1&param2=data2, query string is "param1=data1&param2=data2".

Returns:
query string

setQueryStr

```
public void setQueryStr(String queryStr)
```

Set play/publish name query string. Example: if play name is flv:test?param1=data1&param2=data2, query string is "param1=data1&param2=data2".

Parameters:
queryStr

updateLoggingDuration

```
public void updateLoggingDuration()
```

Update logging.MDC with mediaStream logging information

updateLoggingValues

```
public void updateLoggingValues()
```

Update logging.MDC with mediaStream logging information

clearLoggingValues

```
public void clearLoggingValues()
```

length

```
public double length()
```

Get length/duration (seconds) of media file pointed to by mediaStream

Returns:
length (seconds)

size

```
public long size()
```

Get size (bytes) of media file pointed to by mediaStream

Returns:
size (bytes)

getExt

public String **getExt**()

> Get media file extension
>
> **Returns:**
> > media file extension

setExt

public void **setExt**(String ext)

> Set media file extension
>
> **Parameters:**
> > ext

clear

public void **clear**()

> Delete media file pointed to by this mediaStream (be careful)

isSendPlayStopLogEvent

public boolean **isSendPlayStopLogEvent**()

> Get need to send a log event for stop
>
> **Returns:**
> > need to send a log event for stop

setSendPlayStopLogEvent

public void **setSendPlayStopLogEvent**(boolean sendPlayStopLogEvent)

> Set need to send a log event for stop
>
> **Parameters:**
> > sendPlayStopLogEvent - need to send a log event for stop

isSendRecordStopLogEvent

public boolean **isSendRecordStopLogEvent**()

> Get need to send a log event for recording
>
> **Returns:**
> > need to send a log event for stop

setSendRecordStopLogEvent

public void **setSendRecordStopLogEvent**(boolean sendPlayStopLogEvent)

> Set need to send a log event for recording
>
> **Parameters:**

sendPlayStopLogEvent - need to send a log event for stop

isSendPublishStopLogEvent

public boolean **isSendPublishStopLogEvent**()

Get need to send a log event for publishing

Returns:
need to send a log event for stop

setSendPublishStopLogEvent

public void **setSendPublishStopLogEvent**(boolean sendPlayStopLogEvent)

Set need to send a log event for publishing

Parameters:
sendPlayStopLogEvent - need to send a log event for stop

getAccess

public boolean[] **getAccess**([IClient](#) client,
        String name)

Get the read/write access to this stream for this client

Parameters:
client - client
name - stream name

Returns:
array of booleans read[0], write[1]

getMetaDataProvider

public [IMediaStreamMetaDataProvider](#) **getMetaDataProvider**()

Get the metaData provider

Returns:
metaData provider

setMetaDataProvider

public void **setMetaDataProvider**([IMediaStreamMetaDataProvider](#) metaDataProvider)

Set the metaData provider

Parameters:
metaDataProvider - metaData provider

getHeaderSize

public int **getHeaderSize**()

Get the last packet header size (debugging)

Returns:

last packet header size

---

setHeaderSize

public void **setHeaderSize**(int headerSize)

Set the last packet header size (debugging)

Parameters:
headerSize - last packet header size

---

getAudioCodecConfigPacket

public AMFPacket **getAudioCodecConfigPacket**(long timecode)

Get audio codec configuration packet (needed for H.264/AAC playback)

Parameters:
timecode - timecode of the packet to which you want to get the codec config information

Returns:
audio codec configuration packet (needed for H.264/AAC playback)

---

addAudioCodecConfigPacket

public void **addAudioCodecConfigPacket**(long timecode,
        AMFPacket packet)

Set audio codec configuration packet (needed for H.264/AAC playback)

Parameters:
timecode - timecode in milliseconds of first packet that uses this timecode
packet - audio codec configuration packet (needed for H.264/AAC playback)

---

getVideoCodecConfigPacket

public AMFPacket **getVideoCodecConfigPacket**(long timecode)

Get video codec configuration packet (needed for H.264/AAC playback)

Parameters:
timecode - timecode of the packet to which you want to get the codec config information

Returns:
video codec configuration packet (needed for H.264/AAC playback)

---

addVideoCodecConfigPacket

public void **addVideoCodecConfigPacket**(long timecode,
        AMFPacket packet)

Set video codec configuration packet (needed for H.264/AAC playback)

Parameters:
timecode - timecode in milliseconds of first packet that uses this timecode
packet - video codec configuration packet (needed for H.264/AAC playback)

---

getRTPStream

public RTPStream **getRTPStream**()

Get the RTP based stream this stream is associated with

Returns:
RTP based stream this stream is associated with

setRTPStream

public void **setRTPStream**(RTPStream rtpStream)

Set the RTP based stream this stream is associated with

Parameters:
rtpStream - RTP based stream this stream is associated with

flush

public void **flush**()

Force publishing packets to be flushed from the input buffers to the output buffers

startAudioPacket

public void **startAudioPacket**()

Called when an audio packet is first being populated with data

startVideoPacket

public void **startVideoPacket**()

Called when a video packet is first being populated with data

startDataPacket

public void **startDataPacket**()

Called when a data packet is first being populated with data

getLiveStreamPacketizerList

public String **getLiveStreamPacketizerList**()

Get the comma separated list of LiveStreamPacketizers names being used by this stream (see conf/LiveStreamPacketizers.xml)

Returns:
comma separated list of LiveStreamPacketizers names

setLiveStreamPacketizerList

public void **setLiveStreamPacketizerList**(String liveStreamPacketizerList)

Set the comma separated list of LiveStreamPacketizers names being used by this stream (see conf/LiveStreamPacketizers.xml)

Parameters:

liveStreamPacketizerList - comma separated list of LiveStreamPacketizers names

getLiveStreamTranscoderList

public String **getLiveStreamTranscoderList**()

Get the comma separated list of LiveStreamTranscoders names being used by this stream (see conf/LiveStreamTranscoders.xml)

Returns:

comma separated list of LiveStreamTranscoders names

setLiveStreamTranscoderList

public void **setLiveStreamTranscoderList**(String liveStreamTranscoderList)

Set the comma separated list of LiveStreamTranscoders names being used by this stream (see conf/LiveStreamTranscoders.xml)

Parameters:

liveStreamTranscoderList - comma separated list of LiveStreamTranscoders names

getLiveStreamPacketizer

public [ILiveStreamPacketizer](#) **getLiveStreamPacketizer**(String name)

Get the LiveStreamPacketizer interface to a stream by name

Parameters:

name - LiveStreamPacketizer name

Returns:

LiveStreamPacketizer interface

getDvrRecorderList

public String **getDvrRecorderList**()

Get the comma separated list of DVR Recorder names being used by this stream (see conf/Dvr.xml)

Returns:

comma separated list of DVR Recorder names

setDvrRecorderList

public void **setDvrRecorderList**(String recorderList)

Set the comma separated list of DVR Recorder names being used by this stream (see conf/Dvr.xml)

Parameters:

recorderList - comma separated list of DVR Recorder names

getDvrRecorder

public [ILiveStreamDvrRecorder](#) **getDvrRecorder**(String name)

Get the DVR Recorder interface to a stream by name

Parameters:

name - DVR Recorder name

Returns:
DVR Recorder interface

getUniqueStreamIdStr

`public String` **`getUniqueStreamIdStr`**`()`

Get a string that uniquely identifies this stream

Returns:
unique stream identifier

getHTTPStreamerSession

`public` `IHTTPStreamerSession` **`getHTTPStreamerSession`**`()`

Get the HTTPStreamer session associated with this stream

Returns:
HTTPStreamer session associated with this stream

setHTTPStreamerSession

`public void` **`setHTTPStreamerSession`**`(`IHTTPStreamerSession` httpStreamerSession)`

Set the HTTPStreamer session associated with this stream

Parameters:
`httpStreamerSession` - HTTPStreamer session associated with this stream

getElapsedTime

`public` `ElapsedTimer` **`getElapsedTime`**`()`

Get the interface to the elapse timer

Returns:
interface to the elapse timer

getLiveStreamPacketizer

`public String` **`getLiveStreamPacketizer`**`()`

Get the live stream packetizer that this stream is using

Returns:
live stream packetizer

setLiveStreamPacketizer

`public void` **`setLiveStreamPacketizer`**`(String liveStreamPacketizer)`

Set the live stream packetizer that this stream is using

Parameters:
`liveStreamPacketizer` - live stream packetizer

getLiveStreamRepeater

`public String `**`getLiveStreamRepeater`**`()`

Get the live stream repeater name for the stream

Returns:
live stream repeater name

setLiveStreamRepeater

`public void `**`setLiveStreamRepeater`**`(String liveStreamRepeater)`

Set the live stream repeater name for the stream

Parameters:
liveStreamRepeater - live stream repeater name

initLiveStreamRepeating

`public void `**`initLiveStreamRepeating`**`(String liveStreamPacketizer,`
`        String liveStreamRepeater)`

Initialize this stream for live stream repeating

Parameters:
liveStreamPacketizer - live stream packetizer
liveStreamRepeater - live stream repeater name

getPublishVideoCodecId

`public int `**`getPublishVideoCodecId`**`()`

Get the codec id of the most recently published video packet

Returns:
codec id of the most recently published video packet

setPublishVideoCodecId

`public void `**`setPublishVideoCodecId`**`(int publishVideoCodecId)`

Set the codec id of the most recently published video packet

Parameters:
publishVideoCodecId - codec id of the most recently published video packet

getPublishAudioCodecId

`public int `**`getPublishAudioCodecId`**`()`

Get the codec id of the most recently published audio packet

Returns:
codec id of the most recently published audio packet

setPublishAudioCodecId

public void **setPublishAudioCodecId**(int publishAudioCodecId)

Set the codec id of the most recently published audio packet

Parameters:
publishAudioCodecId - codec id of the most recently published audio packet

isPublishStreamReady

public boolean **isPublishStreamReady**(boolean checkAudio,
boolean checkVideo)

Returns true if the publishing stream contains enough video/audio data to start playback

Parameters:
checkAudio - check audio stream
checkVideo - check video stream

Returns:
true if the publishing stream contains enough video/audio data to start playback

getContextStr

public String **getContextStr**()

Returns the stream context string in the form [application]/[appInstance]/[streamName].

Returns:
stream context string

isMediaCasterPlay

public boolean **isMediaCasterPlay**()

Is MediaCaster play enabled (if true, will trigger MediaCaster startup)

Returns:
true if MediaCaster play enabled

setMediaCasterPlay

public void **setMediaCasterPlay**(boolean isMediaCasterPlay)

Is MediaCaster play enabled (if true, will trigger MediaCaster startup)

Parameters:
isMediaCasterPlay - true if MediaCaster play enabled

isMergeOnMetadata

public boolean **isMergeOnMetadata**()

If true, merge incoming onMetadata events with the current onMetdata event data. If false, replace.

Returns:
true, merge incoming onMetadata events with the current onMetdata event data. If false, replace.

setMergeOnMetadata

public void **setMergeOnMetadata**(boolean mergeOnMetadata)

If true, merge incoming onMetadata events with the current onMetdata event data. If false, replace.

Parameters:
mergeOnMetadata - true, merge incoming onMetadata events with the current onMetdata event data. If false, replace.

getDvrRecorder

public String **getDvrRecorder**()

Get the DVR Recorder for this stream

Returns:
DVR Recorder

getDvrRepeater

public String **getDvrRepeater**()

Get the DVR repeater name for this stream

Returns:
repeater name

setDvrRecorder

public void **setDvrRecorder**(String recorderName)

Set the DVR Recorder that this stream is using

Parameters:
recorderName - DVR Recorder

removeDvrRecorder

public ILiveStreamDvrRecorder **removeDvrRecorder**(String name)

Remove a live stream dvr by name

Parameters:
name - dvr name

Returns:
live stream dvr

putDvrRecorder

public void **putDvrRecorder**(String name,
        ILiveStreamDvrRecorder dvr)

Add a live stream dvr to this stream

Parameters:
name - dvr name
dvr - live stream dvr

getLiveStreamTranscoders

`public java.util.Map` **`getLiveStreamTranscoders`**`()`

Get the list of transcoders for this stream.

Returns:
list of transcoders for this stream

getLiveStreamTranscoder

`public` `ILiveStreamTranscoder` **`getLiveStreamTranscoder`**`(String name)`

Get a live stream transcoder for this stream by name

Parameters:
name - transcoder name

Returns:
live stream transcoder

removeLiveStreamTranscoder

`public` `ILiveStreamTranscoder` **`removeLiveStreamTranscoder`**`(String name)`

Remove a live stream transcoder by name

Parameters:
name - transcoder name

Returns:
live stream transcoder

putLiveStreamTranscoder

`public void` **`putLiveStreamTranscoder`**`(String name,`
`        ILiveStreamTranscoder liveStreamTranscoder)`

Add a live stream transcoder to this stream

Parameters:
name - transcoder name
liveStreamTranscoder - live stream transcoder

isTranscodeResult

`public boolean` **`isTranscodeResult`**`()`

Is this stream the result of a transcode operation.

Returns:
true if stream the result of a transcode operation

setTranscodeResult

`public void` **`setTranscodeResult`**`(boolean isTranscodeResult)`

Is this stream the result of a transcode operation.

Parameters:
isTranscodeResult - true if stream the result of a transcode operation

addVideoH264SEIListener

public void **addVideoH264SEIListener**(IMediaStreamH264SEINotify h264SEIListener)

Add an H.264 SEI listener. This listener will be notified of all incoming H.264 video packets and has the ability to read and/or modify SEI section of the video frame.

Parameters:
h264SEIListener - H.264 SEI listener

removeVideoH264SEIListener

public void **removeVideoH264SEIListener**(IMediaStreamH264SEINotify h264SEIListener)

Remove an H.264 SEI listener. This listener will be notified of all incoming H.264 video packets and has the ability to read and/or modify SEI section of the video frame.

Parameters:
h264SEIListener - H.264 SEI listener

isVideoH264SEIListenerEmpty

public boolean **isVideoH264SEIListenerEmpty**()

Is H.264 SEI listener list empty. This listener will be notified of all incoming H.264 video packets and has the ability to read and/or modify SEI section of the video frame.

Returns:
true if H.264 SEI listener list empty

notifyVideoH264Packet

public void **notifyVideoH264Packet**(AMFPacket packet,
        com.wowza.wms.media.h264.H264SEIMessages seiMessages)

Notify H.264 SEI listener.

Parameters:
packet - AMF Packet
seiMessages - seiMessages

com.wowza.wms.stream
Interface IMediaStreamActionNotify

All Subinterfaces:
> IMediaStreamActionNotify2,   IMediaStreamActionNotify3

All Known Implementing Classes:
> LiveStreamRecordActionNotifier

---

public interface **IMediaStreamActionNotify**
extends

IMediaStreamActionNotify: listener interface used by IMediaStream addClientListener

---

Method Summary

void	**onPause**(`IMediaStream` stream, boolean isPause, double location) Triggered on mediaStream pause
void	**onPlay**(`IMediaStream` stream, String streamName, double playStart, double playLen, int playReset) Triggered on mediaStream play
void	**onPublish**(`IMediaStream` stream, String streamName, boolean isRecord, boolean isAppend) Triggered on mediaStream publish
void	**onSeek**(`IMediaStream` stream, double location) Triggered on mediaStream seek
void	**onStop**(`IMediaStream` stream) Triggered on mediaStream stop
void	**onUnPublish**(`IMediaStream` stream, String streamName, boolean isRecord, boolean isAppend) Triggered on mediaStream unpublish

---

Methods

onPlay

```
public void onPlay(IMediaStream stream,
        String streamName,
        double playStart,
        double playLen,
        int playReset)
```

Triggered on mediaStream play

Parameters:
> stream - mediaStream
> streamName - streamName
> playStart - playStart offset
> playLen - playLen

       `playReset` - reset playlist

onPublish

```
public void onPublish(IMediaStream stream,
         String streamName,
         boolean isRecord,
         boolean isAppend)
```

    Triggered on mediaStream publish

    Parameters:

       `stream` - mediaStream

       `streamName` - streamName

       `isRecord` - recording stream

       `isAppend` - appending to file

onUnPublish

```
public void onUnPublish(IMediaStream stream,
         String streamName,
         boolean isRecord,
         boolean isAppend)
```

    Triggered on mediaStream unpublish

    Parameters:

       `stream` - mediaStream

       `streamName` - streamName

       `isRecord` - recording stream

       `isAppend` - appending to file

onPause

```
public void onPause(IMediaStream stream,
         boolean isPause,
         double location)
```

    Triggered on mediaStream pause

    Parameters:

       `stream` - mediaStream

       `isPause` - pause or unpause

       `location` - location (milliseconds)

onSeek

```
public void onSeek(IMediaStream stream,
         double location)
```

    Triggered on mediaStream seek

    Parameters:

       `stream` - mediaStream

       `location` - location (milliseconds)

onStop

```
public void onStop(IMediaStream stream)
```

Triggered on mediaStream stop

Parameters:

`stream` - mediaStream

com.wowza.wms.stream
Interface IMediaStreamActionNotify2

All Superinterfaces:
  [IMediaStreamActionNotify](#)

All Subinterfaces:
  [IMediaStreamActionNotify3](#)

---

public interface **IMediaStreamActionNotify2**
extends [IMediaStreamActionNotify](#)

Method Summary

void	[onMetaData](#)([IMediaStream](#) stream, [AMFPacket](#) metaDataPacket) Triggered when a published streams metadata is set or changes
void	[onPauseRaw](#)([IMediaStream](#) stream, boolean isPause, double location) Triggered on mediaStream pauseRaw.

Methods inherited from interface [com.wowza.wms.stream.IMediaStreamActionNotify](#)
[onPause](#), [onPlay](#), [onPublish](#), [onSeek](#), [onStop](#), [onUnPublish](#)

Methods

onMetaData

```
public void onMetaData(IMediaStream stream,
        AMFPacket metaDataPacket)
```

Triggered when a published streams metadata is set or changes

---

onPauseRaw

```
public void onPauseRaw(IMediaStream stream,
        boolean isPause,
        double location)
```

Triggered on mediaStream pauseRaw. The pauseRaw method is called when a pause occurs in the player.

Parameters:
  `stream` - mediaStream
  `isPause` - pause or unpause
  `location` - location (milliseconds)

com.wowza.wms.stream
Interface IMediaStreamActionNotify3

All Superinterfaces:
> IMediaStreamActionNotify2, IMediaStreamActionNotify

---

public interface **IMediaStreamActionNotify3**
extends IMediaStreamActionNotify2

Method Summary

void	`onCodecInfoAudio(IMediaStream stream, com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio)` Triggered when publishing stream receives codec information.
void	`onCodecInfoVideo(IMediaStream stream, com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)` Triggered when publishing stream receives codec information.

Methods inherited from interface `com.wowza.wms.stream.IMediaStreamActionNotify2`
`onMetaData`, `onPauseRaw`

Methods inherited from interface `com.wowza.wms.stream.IMediaStreamActionNotify`
`onPause`, `onPlay`, `onPublish`, `onSeek`, `onStop`, `onUnPublish`

Methods

onCodecInfoVideo

```
public void onCodecInfoVideo(IMediaStream stream,
        com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)
```

> Triggered when publishing stream receives codec information.

> **Parameters:**
> > `stream` - mediaStream
> > `codecInfoVideo` - video codec information

---

onCodecInfoAudio

```
public void onCodecInfoAudio(IMediaStream stream,
        com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio)
```

> Triggered when publishing stream receives codec information.

> **Parameters:**
> > `stream` - mediaStream
> > `codecInfoAudio` - video codec information

---

com.wowza.wms.stream
Interface IMediaStreamCallback

public interface **IMediaStreamCallback**
extends

IMediaStreamCallback: callback interface used by IMediaStream registerCallback, registerOnStatus, registerOnPlayStatus

Method Summary

void	**onCallback**(IMediaStream stream, com.wowza.wms.request.RequestFunction function, AMFDataList params) Triggered on callback event

Methods

onCallback

```
public void onCallback(IMediaStream stream,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Triggered on callback event

Parameters:
    `stream` - mediaStream
    `function` - function that triggered callback
    `params` - function parameters

com.wowza.wms.stream
Interface IMediaStreamFileMapper

public interface **IMediaStreamFileMapper**
extends

Interface for mapping a IMediaStream to the underlying file system. Implement this interface and set your class using IApplicationInstance.setStreamFileMapper(IMediaStreamFileMapper streamFileMapper). Your class will then be called each time a stream needs to be mapped to the underlying file system.

Method Summary

java.io.File	streamToFileForRead(IMediaStream stream) Get the File object to read from a stream (get stream name, ext and query from stream object)
java.io.File	streamToFileForRead(IMediaStream stream, String name, String ext, String query) Get the File object to read from a stream (specify name, ext and query)
java.io.File	streamToFileForWrite(IMediaStream stream) Get the File object to write to a stream (get stream name, ext and query from stream object)
java.io.File	streamToFileForWrite(IMediaStream stream, String name, String ext, String query) Get the File object to write to a stream (specify name, ext and query)

Methods

streamToFileForRead

```
public java.io.File streamToFileForRead(IMediaStream stream,
        String name,
        String ext,
        String query)
```

Get the File object to read from a stream (specify name, ext and query)

> **Parameters:**
> stream - stream
> name - stream name
> ext - stream prefix (Ex. mp4:)
> query - query part of stream name (Ex. mystream?param1=value1)
>
> **Returns:**
> resultant File object

streamToFileForRead

```
public java.io.File streamToFileForRead(IMediaStream stream)
```

Get the File object to read from a stream (get stream name, ext and query from stream object)

> **Parameters:**

```
stream - stream
```

Returns:
resultant File object

streamToFileForWrite

```
public java.io.File streamToFileForWrite(IMediaStream stream,
        String name,
        String ext,
        String query)
```

Get the File object to write to a stream (specify name, ext and query)

Parameters:
```
stream
``` - stream
```
name
``` - stream name
```
ext
``` - stream prefix (Ex. mp4:)
```
query
``` - query part of stream name (Ex. mystream?param1=value1)

Returns:
resultant File object

streamToFileForWrite

```
public java.io.File streamToFileForWrite(IMediaStream stream)
```

Get the File object to write to a stream (get stream name, ext and query from stream object)

Parameters:
```
stream
``` - stream

Returns:
resultant File object

com.wowza.wms.stream
Interface IMediaStreamH264SEINotify

public interface **IMediaStreamH264SEINotify**
extends

Method Summary

void	**onVideoH264Packet**(IMediaStream stream, AMFPacket packet, com.wowza.wms.media.h264.H264SEIMessages seiMessages)

Methods

onVideoH264Packet

```
public void onVideoH264Packet(IMediaStream stream,
        AMFPacket packet,
        com.wowza.wms.media.h264.H264SEIMessages seiMessages)
```

com.wowza.wms.stream
Interface IMediaStreamMediaCaster

public interface **IMediaStreamMediaCaster**
extends

IMediaStreamMediaCaster: Internal use

Method Summary

[IMediaCaster](#)	[getMediaCaster](#)()
void	[setMediaCasterItem](#)([MediaCasterItem](#) mediaCasterItem)

Methods

setMediaCasterItem

public void **setMediaCasterItem**([MediaCasterItem](#) mediaCasterItem)

getMediaCaster

public [IMediaCaster](#) **getMediaCaster**()

com.wowza.wms.stream
Interface IMediaStreamMetaDataProvider

public interface **IMediaStreamMetaDataProvider**
extends

IMediaStreamMetaDataProvider: Live streaming metadata provider.

Method Summary

void	**onStreamStart**(java.util.List metaDataList, long timecode) Called to get the onMetadata data at a particular point in time in the stream

Methods

onStreamStart

```
public void onStreamStart(java.util.List metaDataList,
        long timecode)
```

Called to get the onMetadata data at a particular point in time in the stream

Parameters:
metaDataList - list of onMetadata data (should always be one item in list)
timecode - timecode in milliseconds

com.wowza.wms.stream
Interface IMediaStreamNameAliasProvider

All Subinterfaces:
> IMediaStreamNameAliasProvider2

---

public interface **IMediaStreamNameAliasProvider**
extends

IMediaStreamNameAliasProvider: alias provider interface. See
IApplication.setStreamNameAliasProvider(IMediaStreamNameAliasProvider streamNameAliasProvider). See updated interface
IMediaStreamNameAliasProvider2 which provides more complete context information.

Method Summary

String	**resolvePlayAlias**(IApplicationInstance appInstance, String name) Called to resolve a play alias
String	**resolveStreamAlias**(IApplicationInstance appInstance, String name) Called to resolve a stream alias

Methods

resolvePlayAlias

```
public String resolvePlayAlias(IApplicationInstance appInstance,
        String name)
```

Called to resolve a play alias

Parameters:
> appInstance - applicationInstance
> name - stream name

Returns:
> resultant name, null if want to block playback

resolveStreamAlias

```
public String resolveStreamAlias(IApplicationInstance appInstance,
        String name)
```

Called to resolve a stream alias

Parameters:
> appInstance - applicationInstance
> name - stream name

Returns:
> resultant name, null if want to block playback

com.wowza.wms.stream
Interface IMediaStreamNameAliasProvider2

All Superinterfaces:
> IMediaStreamNameAliasProvider

---

public interface **IMediaStreamNameAliasProvider2**
extends IMediaStreamNameAliasProvider

IMediaStreamNameAliasProvider: alias provider interface. See
IApplication.setStreamNameAliasProvider(IMediaStreamNameAliasProvider streamNameAliasProvider).

Method Summary

String	resolvePlayAlias(IApplicationInstance appInstance, String name, IClient client) Resolve play alias for RTMP streaming
String	resolvePlayAlias(IApplicationInstance appInstance, String name, IHTTPStreamerSession httpSession) Resolve play alias for HTTP streaming.
String	resolvePlayAlias(IApplicationInstance appInstance, String name, ILiveStreamPacketizer liveStreamPacketizer) Resolve play alias for live stream packetizer
String	resolvePlayAlias(IApplicationInstance appInstance, String name, RTPSession rtpSession) Resolve play alias for RTSP/RTP streaming
String	resolveStreamAlias(IApplicationInstance appInstance, String name, IMediaCaster mediaCaster) Resolve stream alias for MediaCaster

Methods inherited from interface com.wowza.wms.stream.IMediaStreamNameAliasProvider
resolvePlayAlias, resolveStreamAlias

Methods

resolvePlayAlias

```
public String resolvePlayAlias(IApplicationInstance appInstance,
        String name,
        IClient client)
```

Resolve play alias for RTMP streaming

Parameters:
> appInstance - application instance
> name - stream name
> client - client interface

Returns:

---

resultant name, null if want to block playback

resolvePlayAlias

```
public String resolvePlayAlias(IApplicationInstance appInstance,
        String name,
        IHTTPStreamerSession httpSession)
```

Resolve play alias for HTTP streaming. This callback my be called when there is not a valid HTTP session. In this case a phantom HTTP session will be created and will be populated with information from the underlying HTTP request (such as IP address and query string) but the session Id will be null.

Parameters:

appInstance - application instance

name - name

httpSession - HTTP session

Returns:

resultant name, null if want to block playback

resolvePlayAlias

```
public String resolvePlayAlias(IApplicationInstance appInstance,
        String name,
        RTPSession rtpSession)
```

Resolve play alias for RTSP/RTP streaming

Parameters:

appInstance - application instance

name - name

rtpSession - RTP session

Returns:

resultant name, null if want to block playback

resolvePlayAlias

```
public String resolvePlayAlias(IApplicationInstance appInstance,
        String name,
        ILiveStreamPacketizer liveStreamPacketizer)
```

Resolve play alias for live stream packetizer

Parameters:

appInstance - application instance

name - name

liveStreamPacketizer - live stream packetizer

Returns:

resultant name, null if want to block playback

resolveStreamAlias

```
public String resolveStreamAlias(IApplicationInstance appInstance,
        String name,
        IMediaCaster mediaCaster)
```

Resolve stream alias for MediaCaster

Parameters:

appInstance - application instance

name - name

mediaCaster - media caster

Returns:

resultant name, null if want to block playback

com.wowza.wms.stream
Interface IMediaStreamNotify

public interface **IMediaStreamNotify**
extends

IMediaStreamNotify: listener interface used by IApplicationInstance addMediaStreamListener

Method Summary

void	**onMediaStreamCreate**(IMediaStream stream) Triggered when mediaStream created
void	**onMediaStreamDestroy**(IMediaStream stream) Triggered when mediaStream destroyed

Methods

onMediaStreamCreate

public void **onMediaStreamCreate**(IMediaStream stream)

   Triggered when mediaStream created

Parameters:
   stream - mediaStream

onMediaStreamDestroy

public void **onMediaStreamDestroy**(IMediaStream stream)

   Triggered when mediaStream destroyed

Parameters:
   stream - mediaStream

com.wowza.wms.stream
Interface IMediaStreamPlay

public interface **IMediaStreamPlay**
extends

IMediaStreamPlay: public interface of mediaStreamPlayer object.

Field Summary

public static final	**PAUSE_PAUSE** Pause type: pause Value: **1**
public static final	**PAUSE_PLAY** Pause type: play Value: **0**
public static final	**PAUSE_TOGGLE** Pause type: toggle Value: **-1**
public static final	**PLAYSIZES_AUDIO_BYTES** IMediaReader sizes array: audio byte count Value: **0**
public static final	**PLAYSIZES_AUDIO_COUNT** IMediaReader sizes array: audio packet count Value: **1**
public static final	**PLAYSIZES_DATA_BYTES** IMediaReader sizes array: data byte count Value: **4**
public static final	**PLAYSIZES_DATA_COUNT** IMediaReader sizes array: data packet count Value: **5**
public static final	**PLAYSIZES_LOSS_BYTES** IMediaReader sizes array: data byte count Value: **6**
public static final	**PLAYSIZES_LOSS_COUNT** IMediaReader sizes array: data packet count Value: **7**
public static final	**PLAYSIZES_SIZE** IMediaReader sizes array: size of sizes array long[PLAYSIZES_SIZE] Value: **8**
public static final	**PLAYSIZES_VIDEO_BYTES** IMediaReader sizes array: video byte count Value: **2**

public static final	PLAYSIZES_VIDEO_COUNT	
	IMediaReader sizes array: video packet count Value: **3**	
public static final	PLAYSTATUSTYPE_COMPLETE	
	onPlayStatus type: complete Value: **2**	
public static final	PLAYSTATUSTYPE_STOP	
	onPlayStatus type: stop Value: **3**	
public static final	PLAYSTATUSTYPE_SWITCH	
	onPlayStatus type: switch Value: **1**	

Method Summary

void	close() Close mediaStreamPlay
IMediaStream	getParent() Get the parent media stream object
void	init(IMediaStream parent, MediaStreamMap streams) Initialize mediaStreamPlayer
void	initLiveStreamRepeating(String liveStreamPacketizer, String liveStreamRepeater) Initialize this stream for live stream repeating
void	interruptPlay() Interrupt play to perform operation.
double	length() Get stream length/seconds (seconds)
void	pause(int pauseType, long timecode) pause mediaPlayStream
void	pauseRaw(int pauseType, long timecode) pauseRaw mediaPlayStream
boolean	play() Return true if there are packets to play
int	play(java.io.OutputStream out, AMFObj wmsObjAudio, AMFObj wmsObjVideo, AMFObj wmsObjData, long[] sizes) Write new packets or play packets
void	reset(boolean isReset) Reset mediaStreamPlayer
void	resetNoLookup() Reset but do not lookup current position in live stream
void	seek(int location) seek mediaPlayStream

void	**setBufferTime**(int bufferTime)	
	Set buffer time	
void	**setName**(String name, String oldName, String ext, String queryStr, double playStart, double playLen, int playTransition)	
	Set mediaPlayStream name, extension, query string, play start, play len, play reset	
void	**shutdown**()	
	Shutdown mediaStreamPlayer	
long	**size**()	
	Get stream media file size	
void	**startPlay**()	
	Start playing stream	
void	**stopName**(String name, String oldName, String ext, String queryStr, double playStart, double playLen, int playTransition)	
	Stop stream name	
void	**switchName**(String name, String oldName, String ext, String queryStr, double playStart, double playLen, int playTransition)	
	Switch to stream name	
void	**switchPlay**()	
void	**updateLoggingValues**()	
	Update internal logging values	

Fields

PAUSE_PAUSE

`public static final int` **`PAUSE_PAUSE`**

Pause type: pause
Constant value: **1**

PAUSE_TOGGLE

`public static final int` **`PAUSE_TOGGLE`**

Pause type: toggle
Constant value: **-1**

PAUSE_PLAY

`public static final int` **`PAUSE_PLAY`**

Pause type: play
Constant value: **0**

PLAYSTATUSTYPE_SWITCH

`public static final int` **`PLAYSTATUSTYPE_SWITCH`**

onPlayStatus type: switch

Constant value: **1**

PLAYSTATUSTYPE_COMPLETE

public static final int **PLAYSTATUSTYPE_COMPLETE**

onPlayStatus type: complete
Constant value: **2**

PLAYSTATUSTYPE_STOP

public static final int **PLAYSTATUSTYPE_STOP**

onPlayStatus type: stop
Constant value: **3**

PLAYSIZES_AUDIO_BYTES

public static final int **PLAYSIZES_AUDIO_BYTES**

IMediaReader sizes array: audio byte count
Constant value: **0**

PLAYSIZES_AUDIO_COUNT

public static final int **PLAYSIZES_AUDIO_COUNT**

IMediaReader sizes array: audio packet count
Constant value: **1**

PLAYSIZES_VIDEO_BYTES

public static final int **PLAYSIZES_VIDEO_BYTES**

IMediaReader sizes array: video byte count
Constant value: **2**

PLAYSIZES_VIDEO_COUNT

public static final int **PLAYSIZES_VIDEO_COUNT**

IMediaReader sizes array: video packet count
Constant value: **3**

PLAYSIZES_DATA_BYTES

public static final int **PLAYSIZES_DATA_BYTES**

IMediaReader sizes array: data byte count
Constant value: **4**

PLAYSIZES_DATA_COUNT

public static final int **PLAYSIZES_DATA_COUNT**

IMediaReader sizes array: data packet count
Constant value: **5**

PLAYSIZES_LOSS_BYTES

public static final int **PLAYSIZES_LOSS_BYTES**

> IMediaReader sizes array: data byte count
> Constant value: **6**

PLAYSIZES_LOSS_COUNT

public static final int **PLAYSIZES_LOSS_COUNT**

> IMediaReader sizes array: data packet count
> Constant value: **7**

PLAYSIZES_SIZE

public static final int **PLAYSIZES_SIZE**

> IMediaReader sizes array: size of sizes array long[PLAYSIZES_SIZE]
> Constant value: **8**

Methods

init

public void **init**(IMediaStream parent,
      MediaStreamMap streams)

> Initialize mediaStreamPlayer
>
> ### Parameters:
> > parent - parent mediaStream object
> > streams - parent mediaStreamMap

shutdown

public void **shutdown**()

> Shutdown mediaStreamPlayer

reset

public void **reset**(boolean isReset)

> Reset mediaStreamPlayer
>
> ### Parameters:
> > isReset - is this a playlist reset or addition, true if reset

resetNoLookup

public void **resetNoLookup**()

> Reset but do not lookup current position in live stream

play

```
public int play(java.io.OutputStream out,
          AMFObj wmsObjAudio,
          AMFObj wmsObjVideo,
          AMFObj wmsObjData,
          long[] sizes)
```

Write new packets or play packets

Parameters:
out - OutputStream
wmsObjAudio - audio response channel
wmsObjVideo - video response channel
wmsObjData - data response channel
sizes - sizes array. See IMediaStreamPlay.PLAYSIZES_*

Returns:
total byte output

play

```
public boolean play()
```

Return true if there are packets to play

Returns:
true if packets to play

seek

```
public void seek(int location)
```

seek mediaPlayStream

Parameters:
location - timecode (milliseconds)

pause

```
public void pause(int pauseType,
          long timecode)
```

pause mediaPlayStream

Parameters:
pauseType - pause type. See IMediaStreamPlay.PAUSE_*
timecode - timecode (milliseconds)

pauseRaw

```
public void pauseRaw(int pauseType,
          long timecode)
```

pauseRaw mediaPlayStream

Parameters:
pauseType - pause type. See IMediaStreamPlay.PAUSE_*
timecode - timecode (milliseconds)

setBufferTime

```
public void setBufferTime(int bufferTime)
```

> Set buffer time
>
> #### Parameters:
> > bufferTime

setName

```
public void setName(String name,
        String oldName,
        String ext,
        String queryStr,
        double playStart,
        double playLen,
        int playTransition)
```

> Set mediaPlayStream name, extension, query string, play start, play len, play reset
>
> #### Parameters:
> > name - stream name
> > oldName - old stream name
> > ext - extension
> > queryStr - query string
> > playStart - play start
> > playLen - play len
> > playTransition - play reset

switchName

```
public void switchName(String name,
        String oldName,
        String ext,
        String queryStr,
        double playStart,
        double playLen,
        int playTransition)
```

> Switch to stream name
>
> #### Parameters:
> > name - stream name
> > oldName - old stream name
> > ext - stream extension
> > queryStr - query string
> > playStart - play start
> > playLen - play len
> > playTransition - play transition (see MediaBase.PLAYTRANSITION_*)

stopName

```
public void stopName(String name,
        String oldName,
        String ext,
        String queryStr,
        double playStart,
        double playLen,
        int playTransition)
```

Stop stream name

Parameters:
> `name` - stream name
> `oldName` - old stream name
> `ext` - stream extension
> `queryStr` - query string
> `playStart` - play start
> `playLen` - play len
> `playTransition` - play transition (see MediaBase.PLAYTRANSITION_*)

close

public void **close**()

> Close mediaStreamPlay

interruptPlay

public void **interruptPlay**()

> Interrupt play to perform operation. Usually for seek or pause.

startPlay

public void **startPlay**()

> Start playing stream

switchPlay

public void **switchPlay**()

updateLoggingValues

public void **updateLoggingValues**()

> Update internal logging values

length

public double **length**()

> Get stream length/seconds (seconds)

> **Returns:**
> > length/duration (seconds)

size

public long **size**()

> Get stream media file size

> **Returns:**
> > media file size

getParent

`public IMediaStream getParent()`

Get the parent media stream object

Returns:

parent media stream object

initLiveStreamRepeating

`public void initLiveStreamRepeating(String liveStreamPacketizer,`
`        String liveStreamRepeater)`

Initialize this stream for live stream repeating

Parameters:

`liveStreamPacketizer` - live stream packetizer

`liveStreamRepeater` - live stream repeater name

com.wowza.wms.stream
Interface IMediaStreamTimecodeControl

public interface **IMediaStreamTimecodeControl**
extends

IMediaStreamTimecodeControl: Internal use.

Method Summary	
void	[resetTimecodes](#)()

Methods

resetTimecodes

public void **resetTimecodes**()

com.wowza.wms.stream
Interface IMediaWriter

public interface **IMediaWriter**
extends

IMediaWriter: generic media writer interface. The flv recording system using this interface to persist .flv data captured from the Flash client. These classes are referenced in **[install-dir]/conf/MediaWriters.xml**.

Example IMediaWriter implementation: MediaWriterFLVBasic

This is a basic IMediaWriter implementation that can handle record and append.

```
import java.io.*;
import java.nio.ByteBuffer;
import java.util.*;

import com.wowza.util.*;
import com.wowza.wms.stream.*;
import com.wowza.wms.amf.AMFData;
import com.wowza.wms.logging.*;

public class MediaWriterFLV implements IMediaWriter
{
        private IMediaStream parent = null;
        private MediaWriterItem mediaWriterItem = null;
        private long[] currentTCs = new long[3];
        private long duration = 0;
        private Map extraMetadata = new HashMap();
        private boolean versionFile = false;

        public void setMediaWriterItem(MediaWriterItem mediaWriterItem)
        {
                this.mediaWriterItem = mediaWriterItem;
        }

        public void setParent(IMediaStream parent)
        {
                this.parent = parent;
        }

        public void writePackets(List audioPackets, List videoPackets,
                        List dataPackets, List audioTCs, List videoTCs, List dataTCs, List
dataTypes,
                        boolean isFirst, boolean isLast)
        {
                File newFile = this.parent.getStreamFile();

                boolean localAppend = this.parent.isAppend();

                if (isFirst)
                {
                        long startTC = 0;
                        if (newFile.exists())
                        {
                                if (localAppend)
                                        startTC = FLVUtils.getLastTC(newFile);
                                else
                                {
                                        if (versionFile)
                                                FileUtils.versionFile(newFile);
                                        else
                                        {
                                                try
```

```
                                                {
                                                        newFile.delete();
                                                }
                                                catch (Exception e)
                                                {
                                                }
                                        }
                                }
                        }
                        else
                                localAppend = false;

                        this.currentTCs[FLVUtils.FLV_TCINDEXAUDIO] = startTC;
                        this.currentTCs[FLVUtils.FLV_TCINDEXVIDEO] = startTC;
                        this.currentTCs[FLVUtils.FLV_TCINDEXDATA] = startTC;
                }
                else
                        localAppend = true;

                try
                {
                        if (newFile.getParentFile() == null)

WMSLoggerFactory.getLogger(MediaWriterFLV.class).warn("MediaWriterFLV: File path does not
exist: "+newFile.getPath());
                        else if (!newFile.getParentFile().exists())

WMSLoggerFactory.getLogger(MediaWriterFLV.class).warn("MediaWriterFLV: Folder does not exist:
"+newFile.getParentFile().getPath());
                        else if (newFile.exists() && !newFile.canWrite())

WMSLoggerFactory.getLogger(MediaWriterFLV.class).warn("MediaWriterFLV: Cannot write to file
(permission error): "+newFile.getPath());

                        FileOutputStream ds = new FileOutputStream(newFile, localAppend);

                        if (isFirst)
                        {
                                if (!localAppend)
                                {
                                        FLVUtils.writeHeader(ds, 0.0, extraMetadata);

                                        boolean writeZeroPacket = true;
                                        while(true)
                                        {
                                                if (audioPackets.size() == 0)
                                                        break;

                                                ByteBuffer data =
(ByteBuffer)audioPackets.get(0);
                                                long tcA = ((Long)audioTCs.get(0)).longValue();
```

```
                                        if (tcA == 0 && data.limit() == 0)
                                                writeZeroPacket = false;

                                                break;
                                        }

                                        if (writeZeroPacket)
                                        {
                                                FLVUtils.writeChunk(ds, null, 0,
this.currentTCs[FLVUtils.FLV_TCINDEXAUDIO],
                                                                (byte) 0x08); //
write zero length audio block
                                        }
                                }
                        }

                        FLVUtils.writePackets(ds, audioPackets, videoPackets, dataPackets,
                                        audioTCs, videoTCs, dataTCs, dataTypes, currentTCs);

                        ds.flush();
                        ds.close();
                }
                catch (Exception e)
                {
                        WMSLoggerFactory.getLogger(MediaWriterFLV.class).error(
                                        "MediaWriterFLV: Error writing to file:
"+newFile.getPath()+" :"+e.toString());
                        e.printStackTrace();
                }

                if (isLast)
                {
                        duration = Math.max(Math.max(currentTCs[FLVUtils.FLV_TCINDEXAUDIO],
                                        currentTCs[FLVUtils.FLV_TCINDEXVIDEO]),
                                        currentTCs[FLVUtils.FLV_TCINDEXDATA]);
                        double durationSecs = ((double)duration) / 1000.0;

                        FLVUtils.writeDuration(newFile, durationSecs);
                }
        }

        public Map getExtraMetadata()
        {
                return extraMetadata;
        }

        public void setExtraMetadata(Map extraMetadata)
        {
                this.extraMetadata = extraMetadata;
```

```
        }

        public boolean isVersionFile()
        {
                return versionFile;
        }

        public void setVersionFile(boolean versionFile)
        {
                this.versionFile = versionFile;
        }

        public void putMetaData(String name, AMFData value)
        {
                this.extraMetadata.put(name, value);
        }

}
```

To use this class, edit [install-dir]/conf/MediaWriter and replace the definition for the **flv** MediaWriter:

```
<MediaWriter>
        <Name>flv</Name>
        <Description>FLV Media Writer</Description>
        <FileExtension>flv</FileExtension>
        <ClassBase>com.wowza.wms.plugin.mediawriter.flv.MediaWriterFLVBasic</ClassBase>
</MediaWriter>
```

Example IMediaWriter implementation: MediaWriterFLVMetadata

This example illustrates how to write custom metadata into the recorded flv file on the fly.

```
public class MediaWriterFLVMetadata implements IMediaWriter
{
        private IMediaStream parent = null;
        private MediaWriterItem mediaWriterItem = null;
        private long[] currentTCs = new long[3];
        private long duration = 0;
        private File tmpFile = null;
        private Map extraMetadata = new HashMap();
        private boolean versionFile = false;

        public void setMediaWriterItem(MediaWriterItem mediaWriterItem)
        {
                this.mediaWriterItem = mediaWriterItem;
        }

        public void setParent(IMediaStream parent)
        {
                this.parent = parent;
        }

        public void writePackets(List audioPackets, List videoPackets,
                        List dataPackets, List audioTCs, List videoTCs, List dataTCs,
                        boolean isFirst, boolean isLast)
        {
                File newFile = this.parent.getStreamFile();
                try
                {
                        if (tmpFile == null)
                                tmpFile = File.createTempFile("wowza", "flv");
                }
                catch (Exception e)
                {
                        WMSLoggerFactory.getLogger(MediaWriterFLVBasic.class).error(
                                        "MediaWriterFLVMetadata: Error createTempFile: "+
                                        tmpFile+" :"+e.toString());
                }

                boolean localAppend = this.parent.isAppend();
                if (isFirst)
                {
                        AMFDataArray keyFrames = null;

                        long startTC = 0;
                        if (newFile.exists())
                        {
                                if (localAppend)
                                {
                                        startTC = FLVUtils.getLastTC(newFile);
                                        keyFrames = getKeyFrames(newFile);
                                        copyPacketsToTmpFile(newFile, tmpFile);
                                }
```

```
                                if (versionFile)
                                        FileUtils.versionFile(newFile);
                                else
                                {
                                        try
                                        {
                                                newFile.delete();
                                        }
                                        catch (Exception e)
                                        {
                                        }
                                }
                        }
                        else
                                localAppend = false;

                        if (keyFrames == null)
                                keyFrames = new AMFDataArray();
                        extraMetadata.put("keyFrames", keyFrames);

                        this.currentTCs[FLVUtils.FLV_TCINDEXAUDIO] = startTC;
                        this.currentTCs[FLVUtils.FLV_TCINDEXVIDEO] = startTC;
                        this.currentTCs[FLVUtils.FLV_TCINDEXDATA] = startTC;
                }
                else
                        localAppend = true;

                AMFDataArray keyFrames = (AMFDataArray)extraMetadata.get("keyFrames");
        long timecode = this.currentTCs[FLVUtils.FLV_TCINDEXVIDEO];
                int size = videoPackets.size();
                for(int i=0;i<size;i++)
                {
                        ByteBuffer data = (ByteBuffer)videoPackets.get(i);
                        int firstByte = data.get(0);
                        timecode += ((Long)videoTCs.get(i)).longValue();
                        if (FLVUtils.getFrameType(firstByte) == FLVUtils.FLV_KFRAME)
                        {
                                double durationSecs = ((double)timecode) / 1000.0;
                                AMFDataObj dataObj = new AMFDataObj();
                                dataObj.put("name", new AMFDataItem("keyframe
"+durationSecs));
                                dataObj.put("time", new AMFDataItem(durationSecs));
                                keyFrames.add(dataObj);
                        }
                }

                try
                {
                        FileOutputStream ds = new FileOutputStream(tmpFile, localAppend);
                        FLVUtils.writePackets(ds, audioPackets, videoPackets, dataPackets,
```

```
                                    audioTCs, videoTCs, dataTCs, currentTCs);
                    ds.flush();
                    ds.close();
            }
            catch (Exception e)
            {
                    WMSLoggerFactory.getLogger(MediaWriterFLVBasic.class).error(
                                    "MediaWriterFLVMetadata: Error writing to tmp file:
"+
                                    newFile.getPath()+" :"+e.toString());
            }

            if (isLast)
            {
                    duration = Math.max(Math.max(currentTCs[FLVUtils.FLV_TCINDEXAUDIO],
                                    currentTCs[FLVUtils.FLV_TCINDEXVIDEO]),
                                    currentTCs[FLVUtils.FLV_TCINDEXDATA]);
                    double durationSecs = ((double)duration) / 1000.0;

                    try
                    {
                            AMFPacket packet = null;
                            FileOutputStream ds = new FileOutputStream(newFile);

                            FileInputStream di = new FileInputStream(tmpFile);
                            FLVUtils.writeHeader(ds, durationSecs, extraMetadata);
                            while((packet = FLVUtils.readChunk(di)) != null)
                            {
                                    FLVUtils.writeChunk(ds, packet.getDataBuffer(),
packet.getSize(),
                                                    packet.getTimecode(),
(byte)packet.getType());
                            }
                            di.close();

                            ds.flush();
                            ds.close();

                            tmpFile.delete();
                    }
                    catch (Exception e)
                    {
                            WMSLoggerFactory.getLogger(MediaWriterFLVBasic.class).error(
                                            "MediaWriterFLVMetadata: Error tmp writing to
file: "+
                                            newFile.getPath()+" :"+e.toString());
                    }
            }
    }

    private void copyPacketsToTmpFile(File newFile, File tmpFile)
```

```
        {
                AMFDataArray keyFrames = null;
                try
                {
                        AMFPacket packet = null;
                        FileOutputStream ds = new FileOutputStream(tmpFile);

                        FileInputStream di = new FileInputStream(newFile);
                        FLVUtils.readHeader(di);
                        FLVUtils.readChunk(di); // skip metaData packet
                        while((packet = FLVUtils.readChunk(di)) != null)
                        {
                                FLVUtils.writeChunk(ds, packet.getDataBuffer(),
packet.getSize(),
                                                packet.getTimecode(),
(byte)packet.getType());
                        }
                        di.close();

                        ds.flush();
                        ds.close();
                }
                catch (Exception e)
                {
                        WMSLoggerFactory.getLogger(MediaWriterFLVBasic.class).error(
                                        "MediaWriterFLVMetadata: Error copyPacketsToTmpFile:
"+
                                        newFile.getPath()+" :"+e.toString());
                }
        }

        private AMFDataArray getKeyFrames(File newFile)
        {
                AMFDataArray keyFrames = null;
                try
                {
                        BufferedInputStream inStream = new BufferedInputStream(new
FileInputStream(newFile));
                        FLVUtils.readHeader(inStream);
                        AMFPacket packet = FLVUtils.readChunk(inStream);
                        if (packet.getType() == IVHost.CONTENTTYPE_DATA0 || packet.getType()
== IVHost.CONTENTTYPE_DATA3)
                        {
                                byte[] mbytes = packet.getData();
                                int moffset = 0;
                                if (packet.getType() == IVHost.CONTENTTYPE_DATA3 &&
mbytes.length > 0)
                                {
                                        if (mbytes[0] == 0)
                                                moffset = 1;
                                }
```

```
                                        AMFDataList dataList = new AMFDataList(mbytes, moffset,
mbytes.length-moffset);
                                        if (dataList.size() > 1)
                                        {
                                                if (dataList.get(1).getType() ==
AMFData.DATA_TYPE_MIXED_ARRAY)
                                                {
                                                        AMFDataMixedArray metaValues =
(AMFDataMixedArray)dataList.get(1);
                                                        if (metaValues.containsKey("keyFrames"))
                                                                keyFrames =
(AMFDataArray)metaValues.get("keyFrames");
                                                }
                                        }
                        }
                        inStream.close();
                }
                catch (Exception e)
                {
                        WMSLoggerFactory.getLogger(MediaWriterFLVBasic.class).error(
                                "MediaWriterFLVMetadata: Error getKeyFrames: "+
                                newFile.getPath()+" :"+e.toString());
                }

                return keyFrames;
        }

        public boolean isVersionFile()
        {
                return versionFile;
        }

        public void setVersionFile(boolean versionFile)
        {
                this.versionFile = versionFile;
        }

        public void putMetaData(String name, AMFData value)
        {
                this.extraMetadata.put(name, value);
        }
}
```

To use this class, edit [install-dir]/conf/MediaWriter and replace the definition for the **flv** MediaWriter:

```
<MediaWriter>
        <Name>flv</Name>
        <Description>FLV Media Writer</Description>
        <FileExtension>flv</FileExtension>
        <ClassBase>com.wowza.wms.plugin.mediawriter.flv.MediaWriterFLVMetadata</ClassBase>
</MediaWriter>
```

Method Summary

long	**getDuration**() Get the recorded duration of the file in seconds
boolean	**isVersionFile**() Return true if the old file is to be versioned
boolean	**isWaitForVideoKeyFrame**() get wait for key frame
void	**putMetaData**(String name, AMFData value) Add metadata to the metadata packet.
void	**setMediaWriterItem**(MediaWriterItem mediaWriterItem) Set the media write definition
void	**setParent**(IMediaStream parent) Set the parent stream for this media write object
void	**setVersionFile**(boolean versionFile) Set to true if the old file is to be versioned
void	**setWaitForVideoKeyFrame**(boolean waitForVideoKeyFrame) Set to true if you want the recorder to skip opening frames until it hits a key frame
void	**writePackets**(java.util.List audioPackets, java.util.List videoPackets, java.util.List dataPackets, java.util.List audioTCs, java.util.List videoTCs, java.util.List dataTCs, java.util.List dataTypes, boolean isFirst, boolean isLast) Invoked each time a set of packets are ready to be presisted.

Methods

writePackets

```
public void writePackets(java.util.List audioPackets,
        java.util.List videoPackets,
        java.util.List dataPackets,
        java.util.List audioTCs,
        java.util.List videoTCs,
        java.util.List dataTCs,
        java.util.List dataTypes,
        boolean isFirst,
        boolean isLast)
```

Invoked each time a set of packets are ready to be presisted.

Parameters:
      `audioPackets` - List of audio packets
      `videoPackets` - List of video packets
      `dataPackets` - List of data packets
      `audioTCs` - List of audio timecodes
      `videoTCs` - List of video timecodes
      `dataTCs` - List of data timecodes
      `dataTypes` - list of integer packets types (IVHost.CONTENTTYPE_DATA0, IVHost.CONTENTTYPE_DATA3) - if null assumed to be IVHost.CONTENTTYPE_DATA0
      `isFirst` - true if first packet to be written
      `isLast` - false if last packet to be written

---

setMediaWriterItem

`public void `**`setMediaWriterItem`**`(MediaWriterItem mediaWriterItem)`

Set the media write definition

Parameters:
      `mediaWriterItem` - media write definition

---

setParent

`public void `**`setParent`**`(`IMediaStream` parent)`

Set the parent stream for this media write object

Parameters:
      `parent`

---

isVersionFile

`public boolean `**`isVersionFile`**`()`

Return true if the old file is to be versioned

Returns:
      true if the old file is to be versioned

---

setVersionFile

`public void `**`setVersionFile`**`(boolean versionFile)`

Set to true if the old file is to be versioned

Parameters:
      `versionFile`

---

isWaitForVideoKeyFrame

`public boolean `**`isWaitForVideoKeyFrame`**`()`

get wait for key frame

Returns:
      wait for key frame

---

setWaitForVideoKeyFrame

`public void` **`setWaitForVideoKeyFrame`**`(boolean waitForVideoKeyFrame)`

Set to true if you want the recorder to skip opening frames until it hits a key frame

Parameters:
`waitForVideoKeyFrame` - wait for key frame

putMetaData

`public void` **`putMetaData`**`(String name,`
        `AMFData value)`

Add metadata to the metadata packet. Only metadata added before the first call to writePackets will be included in the file

Parameters:
`name` - field name
`value` - metadata value

getDuration

`public long` **`getDuration`**`()`

Get the recorded duration of the file in seconds

Returns:
recorded duration of the file in seconds

com.wowza.wms.stream
Interface IMediaWriterActionNotify

public interface **IMediaWriterActionNotify**
extends

IMediaWriterActionNotify: listener interface for file writing. See
IApplicationInstance.addMediaWriterListener(IMediaWriterActionNotify listener)

Method Summary

void	**onFLVAddMetadata**(IMediaStream stream, java.util.Map extraMetadata) Called just before metadata is written to the file (FLV only)
void	**onWriteComplete**(IMediaStream stream, java.io.File file) Called when writing is complete

Methods

onWriteComplete

public void **onWriteComplete**(IMediaStream stream,
          java.io.File file)

Called when writing is complete

Parameters:
stream - stream
file - file handle

onFLVAddMetadata

public void **onFLVAddMetadata**(IMediaStream stream,
          java.util.Map extraMetadata)

Called just before metadata is written to the file (FLV only)

Parameters:
stream - stream
extraMetadata - additional metadata, add to this collection to add items to onMetadata event written to FLV file.

com.wowza.wms.stream
Class MediaReaderEncInfo

```
java.lang.Object
    │
    +-com.wowza.wms.stream.MediaReaderEncInfo
```

public class **MediaReaderEncInfo**
extends Object

Field Summary

public static final	**METHOD_NONE** Value: **0**
public static final	**METHOD_SAMPLE_PLAYREADY** Value: **1**

Constructor Summary

public	**MediaReaderEncInfo**()

Method Summary

void	**addPlayReadyDecryptorKey**(com.wowza.wms.drm.playready.PlayReadyKeyInfo decryptorKey)
int	**getEncMethod**()
com.wowza.wms.drm.playready.PlayReadyKeyInfo	**getPlayReadyDecryptorKey**()
com.wowza.wms.drm.playready.PlayReadyKeyInfo	**getPlayReadyDecryptorKey**(String keyId)
void	**setEncMethod**(int encMethod)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

METHOD_NONE

public static final int **METHOD_NONE**

Constant value: **0**

METHOD_SAMPLE_PLAYREADY

```
public static final int METHOD_SAMPLE_PLAYREADY
```

Constant value: **1**

Constructors

MediaReaderEncInfo

```
public MediaReaderEncInfo()
```

Methods

addPlayReadyDecryptorKey

```
public void addPlayReadyDecryptorKey(com.wowza.wms.drm.playready.PlayReadyKeyInfo
decryptorKey)
```

getPlayReadyDecryptorKey

```
public com.wowza.wms.drm.playready.PlayReadyKeyInfo getPlayReadyDecryptorKey()
```

getPlayReadyDecryptorKey

```
public com.wowza.wms.drm.playready.PlayReadyKeyInfo getPlayReadyDecryptorKey(String
keyId)
```

getEncMethod

```
public int getEncMethod()
```

setEncMethod

```
public void setEncMethod(int encMethod)
```

com.wowza.wms.stream
Class MediaStreamBase

```
java.lang.Object
    │
    +-com.wowza.wms.stream.MediaStream
        │
        +-com.wowza.wms.stream.MediaStreamBase
```

All Implemented Interfaces:
>   IMediaStream

---

public class **MediaStreamBase**

extends MediaStream

Field Summary

public static	**p** 　　Deprecated.
public static	**sinfo** 　　Deprecated.

Fields inherited from class com.wowza.wms.stream.MediaStream
actionListeners, audioBytes, audioSize, audioTC, BASE_STREAM_EXT, bufferTime, callbacks, client, dataBytes, dataSize, dataTC, dataType, dvrLock, dvrMap, dvrPlayer, dvrRecorder, dvrRecorderList, dvrRepeater, elapsedTime, ext, fastPlaySettings, h264SEIListeners, headerSize, httpStreamerSession, ID3_STREAM_EXT, isAppend, isClustered, isMediaCasterPlay, isOpen, isPlay, isPlaying, isRecord, isTranscodeResult, liveStreamPacketizer, liveStreamPacketizerList, liveStreamRepeater, liveStreamTranscoderList, lock, mediaIOPerformance, mergeOnMetadata, metaDataProvider, MP3_STREAM_EXT, MP4_STREAM_EXT, name, netConnection, parent, player, playLen, playStart, playTransition, properties, queryStr, receiveAudio, receiveVideo, receiveVideoFPS, rtpStream, SEND_CONTROL0, SEND_CONTROL1, SEND_CONTROL3, SEND_CONTROL4, sendDirectLock, sendDirectMessages, sendPlayStopLogEvent, sendPublishStopLogEvent, sendRecordStopLogEvent, SMIL_STREAM_EXT, src, STREAM_DEFAULTNAME, streamType, transcoderLock, transcoderMap, tss, videoBytes, videoSize, videoTC

Fields inherited from interface com.wowza.wms.stream.IMediaStream
AUDIOSAMPLEACCESS, READACCESS, VIDEOSAMPLEACCESS, WRITEACCESS

Constructor Summary

public	**MediaStreamBase**()

Method Summary

void	**init**(MediaStreamMap parent, int src, WMSProperties properties)
void	**publish**()

---

void	trim()

Methods inherited from class `com.wowza.wms.stream.MediaStream`

addAudioCodecConfigPacket, addAudioData, addClientListener, addClientListener,
addClientListener, addDataData, addVideoCodecConfigPacket, addVideoData,
addVideoH264SEIListener, clear, clearFastPlaySettings, clearLoggingValues, close,
flush, getAccess, getAudioCodecConfigPacket, getAudioMissing, getAudioSize,
getAudioTC, getBufferTime, getBurstStartStop, getCacheName, getClient, getClientId,
getContextStr, getDataMissing, getDataSize, getDataTC, getDataType, getDvrRecorder,
getDvrRecorder, getDvrRecorderList, getDvrRepeater, getElapsedTime, getExt,
getFastPlaySettings, getHeaderSize, getHTTPStreamerSession, getLastKeyFrame,
getLastPacket, getLiveStreamDvr, getLiveStreamDvrs, getLiveStreamPacketizer,
getLiveStreamPacketizer, getLiveStreamPacketizerList, getLiveStreamRepeater,
getLiveStreamTranscoder, getLiveStreamTranscoderList, getLiveStreamTranscoders,
getMaxTimecode, getMediaIOPerformance, getMetaDataProvider, getName,
getNetConnection, getPlayer, getPlayPackets, getProperties, getPublishAudioCodecId,
getPublishVideoCodecId, getQueryStr, getReceiveVideoFPS, getRespAMFAudioObj,
getRespAMFDataObj, getRespAMFVideoObj, getRTPStream, getSrc, getStreamFileForRead,
getStreamFileForRead, getStreamFileForWrite, getStreamFileForWrite, getStreams,
getStreamType, getTss, getUniqueStreamIdStr, getVideoCodecConfigPacket,
getVideoMissing, getVideoSize, getVideoTC, handleCallback, idle,
incrementMediaInBytes, incrementMediaLossBytes, incrementMediaOutBytes, init,
initDvrRepeating, initLiveStreamRepeating, isAppend, isClustered, isMediaCasterPlay,
isMergeOnMetadata, isOpen, isPlay, isPlaying, isPublishStreamReady, isReceiveAudio,
isReceiveVideo, isRecord, isSendDirectMessages, isSendPlayStopLogEvent,
isSendPublishStopLogEvent, isSendRecordStopLogEvent, isTranscodeResult,
isVideoH264SEIListenerEmpty, length, notifyActionOnCodecInfoAudio,
notifyActionOnCodecInfoVideo, notifyActionOnMetaData, notifyActionPause,
notifyActionPauseRaw, notifyActionPlay, notifyActionPublish, notifyActionSeek,
notifyActionStop, notifyActionUnPublish, notifyVideoH264Packet, packetComplete,
processSendDirectMessages, publish, putDvrRecorder, putLiveStreamTranscoder,
registerCallback, registerOnPlayStatus, registerOnStatus, removeClientListener,
removeClientListener, removeClientListener, removeDvrRecorder,
removeLiveStreamTranscoder, removeVideoH264SEIListener, reset, send, send, sendAMF3,
sendAMF3, sendControlBytes, sendDataToCallback, sendDirect, sendDirect,
sendDirectAMF3, sendDirectAMF3, sendDirectInternal, sendDirectInternal, sendInternal,
sendInternal, sendLivePlaySeek, sendLivePlayStart, sendLivePlaySwitch,
sendPauseNotify, sendPauseNotify, sendPlayReset, sendPlayReset, sendPlaySeek,
sendPlaySeek, sendPlaySeek, sendPlayStart, sendPlayStart, sendPlayStart,
sendPlayStart, sendPlayStatus, sendPlayStatus, sendPlayStop, sendPlayStop,
sendPlaySwitch, sendPlaySwitch, sendStreamNotFound, sendStreamNotFound,
sendUnpauseNotify, sendUnpauseNotify, sendUnpauseNotify, sendVODPlaySwitch,
setAppend, setAudioSize, setAudioTC, setAudioTC, setBufferTime, setClient,
setClustered, setDataSize, setDataTC, setDataTC, setDataType, setDvrRecorder,
setDvrRecorderList, setDvrRepeater, setExt, setFastPlaySettings, setHeaderSize,
setHTTPStreamerSession, setIsPlaying, setJustName, setLiveStreamPacketizer,
setLiveStreamPacketizerList, setLiveStreamRepeater, setLiveStreamTranscoderList,
setMediaCasterPlay, setMergeOnMetadata, setMetaDataProvider, setName, setName,
setName, setNetConnection, setOpen, setPlay, setPlayer, setPublishAudioCodecId,
setPublishVideoCodecId, setQueryStr, setReceiveAudio, setReceiveVideo,
setReceiveVideoFPS, setRecord, setRTPStream, setSendPlayStopLogEvent,
setSendPublishStopLogEvent, setSendRecordStopLogEvent, setSrc, setStreamType,
setTranscodeResult, setTss, setVideoSize, setVideoTC, setVideoTC, shutdown, size,
startAudioPacket, startDataPacket, startPublishing, startVideoPacket, stopName,
stopPublishing, switchName, trim, unregisterCallback, unregisterOnPlayStatus,
unregisterOnStatus, updateLoggingDuration, updateLoggingValues

---

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Methods inherited from interface `com.wowza.wms.stream.IMediaStream`

addAudioCodecConfigPacket, addAudioData, addClientListener, addClientListener, addClientListener, addDataData, addVideoCodecConfigPacket, addVideoData, addVideoH264SEIListener, clear, clearFastPlaySettings, clearLoggingValues, close, flush, getAccess, getAudioCodecConfigPacket, getAudioMissing, getAudioSize, getAudioTC, getBufferTime, getBurstStartStop, getCacheName, getClient, getClientId, getContextStr, getDataMissing, getDataSize, getDataTC, getDataType, getDvrRecorder, getDvrRecorder, getDvrRecorderList, getDvrRepeater, getElapsedTime, getExt, getFastPlaySettings, getHeaderSize, getHTTPStreamerSession, getLastKeyFrame, getLastPacket, getLiveStreamPacketizer, getLiveStreamPacketizer, getLiveStreamPacketizerList, getLiveStreamRepeater, getLiveStreamTranscoder, getLiveStreamTranscoderList, getLiveStreamTranscoders, getMaxTimecode, getMediaIOPerformance, getMetaDataProvider, getName, getNetConnection, getPlayer, getPlayPackets, getProperties, getPublishAudioCodecId, getPublishVideoCodecId, getQueryStr, getReceiveVideoFPS, getRespAMFAudioObj, getRespAMFDataObj, getRespAMFVideoObj, getRTPStream, getSrc, getStreamFileForRead, getStreamFileForRead, getStreamFileForWrite, getStreamFileForWrite, getStreams, getStreamType, getUniqueStreamIdStr, getVideoCodecConfigPacket, getVideoMissing, getVideoSize, getVideoTC, handleCallback, idle, incrementMediaInBytes, incrementMediaLossBytes, incrementMediaOutBytes, init, initLiveStreamRepeating, isAppend, isClustered, isMediaCasterPlay, isMergeOnMetadata, isOpen, isPlay, isPlaying, isPublishStreamReady, isReceiveAudio, isReceiveVideo, isRecord, isSendPlayStopLogEvent, isSendPublishStopLogEvent, isSendRecordStopLogEvent, isTranscodeResult, isVideoH264SEIListenerEmpty, length, notifyActionOnCodecInfoAudio, notifyActionOnCodecInfoVideo, notifyActionOnMetaData, notifyActionPause, notifyActionPauseRaw, notifyActionPlay, notifyActionPublish, notifyActionSeek, notifyActionStop, notifyActionUnPublish, notifyVideoH264Packet, packetComplete, publish, putDvrRecorder, putLiveStreamTranscoder, registerCallback, registerOnPlayStatus, registerOnStatus, removeClientListener, removeClientListener, removeClientListener, removeDvrRecorder, removeLiveStreamTranscoder, removeVideoH264SEIListener, send, send, sendAMF3, sendAMF3, sendControlBytes, sendDirect, sendDirect, sendDirectAMF3, sendDirectAMF3, sendLivePlaySeek, sendLivePlayStart, sendLivePlaySwitch, sendPauseNotify, sendPauseNotify, sendPlayReset, sendPlayReset, sendPlaySeek, sendPlaySeek, sendPlaySeek, sendPlayStart, sendPlayStart, sendPlayStart, sendPlayStart, sendPlayStatus, sendPlayStatus, sendPlayStop, sendPlayStop, sendPlaySwitch, sendPlaySwitch, sendStreamNotFound, sendStreamNotFound, sendUnpauseNotify, sendUnpauseNotify, sendUnpauseNotify, sendVODPlaySwitch, setAppend, setAudioSize, setAudioTC, setAudioTC, setBufferTime, setClient, setClustered, setDataSize, setDataTC, setDataTC, setDataType, setDvrRecorder, setDvrRecorderList, setExt, setFastPlaySettings, setHeaderSize, setHTTPStreamerSession, setIsPlaying, setLiveStreamPacketizer, setLiveStreamPacketizerList, setLiveStreamRepeater, setLiveStreamTranscoderList, setMediaCasterPlay, setMergeOnMetadata, setMetaDataProvider, setName, setName, setName, setNetConnection, setOpen, setPlay, setPlayer, setPublishAudioCodecId, setPublishVideoCodecId, setQueryStr, setReceiveAudio, setReceiveVideo, setReceiveVideoFPS, setRecord, setRTPStream, setSendPlayStopLogEvent, setSendPublishStopLogEvent, setSendRecordStopLogEvent, setSrc, setStreamType, setTranscodeResult, setVideoSize, setVideoTC, setVideoTC, shutdown, size, startAudioPacket, startDataPacket, startPublishing, startVideoPacket, stopName, stopPublishing, switchName, trim, unregisterCallback, unregisterOnPlayStatus, unregisterOnStatus, updateLoggingDuration, updateLoggingValues

---

Fields

sinfo

```
public static java.util.Map sinfo
```

> Deprecated.

p

```
public static java.lang.String p
```

> Deprecated.

Constructors

MediaStreamBase

```
public MediaStreamBase()
```

Methods

init

```
public void init(MediaStreamMap parent,
        int src,
        WMSProperties properties)
```

publish

```
public void publish()
```

trim

```
public void trim()
```

com.wowza.wms.stream
Class MediaStreamMap

```
java.lang.Object
    │
    +-com.wowza.wms.stream.MediaStreamMap
```

public class **MediaStreamMap**
extends Object

MediaStreamMap: collection of IMediaStream object. This collection is usually attached to an IApplicationInstance object.

Field Summary

protected	appInstance
protected	dvrRecorders
protected	liveStreamPacketizers
public static final	MAXSTREAMINDEX Value: **65536**
protected	mediaStreamListeners
protected	nameGroupId
protected	nameGroups
protected	nextStreamId
protected	packetizerLicenses
protected	streamLicenses
protected	streamLock
protected	streamNames
protected	streamNamesLock
protected	streamNameToGroup
protected	streams

Constructor Summary

public	**MediaStreamMap**(**IApplicationInstance** appInstance) Create empty MediaStreamMap collection

Method Summary

LicenseHolder	**addLicense**(**ILiveStreamPacketizer** liveStreamPacketizer, int licenseType)
LicenseHolder	**addLicense**(**IMediaStream** stream, int licenseType)
void	**addMediaStreamListener**(**IMediaStreamNotify** mediaStreamListener) Add a media stream listener.
MediaStreamMapGroup	**addNameGroup**(MediaStreamMapGroup newGroup)
void	**broadcasePlayMessage**(**IMediaStream** stream, long timecode, java.nio.ByteBuffer msg, int objectEncoding) Send a broadcast message to all play stream that are listening to this live published stream.
int	**broadcastGetObjectEncoding**(**IMediaStream** stream) Get the minimum object encoding level for the clients playing this stream.
void	**clearStreamName**(String name) Unregister a published live media stream name.
void	**clearStreamName**(String name, **IMediaStream** stream) Unregister a published live media stream name.
IApplicationInstance	**getAppInstance**() Get the parent applicationInstance.
String	**getAppInstanceName**() Get the name of the parent applicationInstance.
String	**getAppName**() Get the name of the parent application.
int	**getCount**() Get the total number of streams stored in the mediaStreamMap
ILiveStreamDvrRecorder	**getDvrRecorder**(String streamName, String recorderName, boolean doCreate) Get a DVR recorder by name and recorder name
java.util.List	**getDvrRecorders**() Returns a list of ILiveStreamDvrRecorder objects
ILiveStreamPacketizer	**getLiveStreamPacketizer**(String streamName, String packetizerName, boolean doCreate) Get a live stream packetizer by name and packetizer id
Object	**getLiveStreamPacketizerLock**() Get the lock to the live stream packetizer system
MediaStreamMapGroup	**getNameGroupByGroupName**(String groupName)
java.util.Set	**getNameGroups**()

java.util.Set	getNameGroups(String streamName)	
java.util.Set	getNameGroupStreamNames(String streamName)	
long	getNextNameGroupId(MediaStreamMapGroup newGroup)	
int	getNextStreamIndex() Reserve a clientless stream id for a new media stream.	
int	getNextStreamIndex(IClient client) Reserve a stream for a client connection.	
int	getNextStreamIndex(com.wowza.wms.netconnection.INetConnection netConnection) Reserve a stream for a netConnection connection.	
java.util.List	getPublishStreamNames() Returns a List of published stream names	
IMediaStream	getStream(IClient client, int index) Get a media stream reference by stream id.	
IMediaStream	getStream(IClient client, int index, boolean doCreate) Get a media stream reference by stream id.	
IMediaStream	getStream(com.wowza.wms.netconnection.INetConnection netConnection, int index) Get a media stream object that is owned by a server to server netConnection object (not yet implemented).	
IMediaStream	getStream(com.wowza.wms.netconnection.INetConnection netConnection, int index, boolean doCreate) Get a media stream reference by stream id.	
IMediaStream	getStream(String name) Get a media stream by stream name.	
IMediaStream	getStreamClientless(int index, String streamTypeStr) Get a media stream reference by stream id.	
edu.emory.mathcs.back port.java.util.concur rent.locks.WMSReadWri teLock	getStreamListLock() Get the underlying read/write lock associated with the list of streams	
edu.emory.mathcs.back port.java.util.concur rent.locks.WMSReadWri teLock	getStreamNameLock() Get the underlying read/write lock associated with the stream names list	
java.util.List	getStreams() Returns a list of IMediaStream objects	
IVHost	getVHost() Get the parent vHost.	
void	notifyMediaStreamCreate(IMediaStream mediaStream) Notify all media stream listeners that a new media stream object has been created.	

void	`notifyMediaStreamDestroy(`IMediaStream` mediaStream)` Notify all media stream listeners that a media stream object is being destroyed.	
void	`notifyPlayPublish(`IMediaStream` stream)` Notify all play streams that are listening to this stream that the stream is going into a state of publish (NetStream.Play.PublishNotify).	
void	`notifyPlayUnpublish(`IMediaStream` stream)` Notify all play streams that are listening to this stream that the stream is going into a state of unpublished (NetStream.Play.UnpublishNotify).	
void	`notifyPlayUnpublish(String streamName)` Notify all play streams that are listening to this stream name that the stream is going into a state of unpublished (NetStream.Play.UnpublishNotify).	
void	`removeDvrRecorder(String streamName)`	
ILiveStreamDvrRecorder	`removeDvrRecorder(String streamName, String recorderName)` Remove DVR Recorder	
void	`removeLiveStreamPacketizer(String streamName)` Remove all live stream packetizers for this stream name	
ILiveStreamPacketizer	`removeLiveStreamPacketizer(String streamName, String packetizerName)` Remove live stream packetizer	
void	`removeMediaStreamListener(`IMediaStreamNotify` mediaStreamListener)` Remove a media stream listener.	
MediaStreamMapGroup	`removeNameGroup(int groupId)`	
MediaStreamMapGroup	`removeNameGroup(MediaStreamMapGroup nameGroup)`	
void	`removeStream(`IClient` client, int index)` Remove a stream associated with a client connection	
void	`removeStream(com.wowza.wms.netconnection.INetConnection netConnection, int index)` Remove a stream associated with a netConnection object	
void	`removeStream(int index)` Remove a clientless media stream	
void	`setStreamName(`IMediaStream` stream, String name)` Insert live media stream into the mediaStreamMap by name.	
long	`streamToIndex(`IMediaStream` stream)` Get the unique stream identifier for a given stream	

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

MAXSTREAMINDEX

public static final int **MAXSTREAMINDEX**

Constant value: **65536**

streams

protected java.util.Map **streams**

streamNames

protected java.util.Map **streamNames**

streamLicenses

protected java.util.Map **streamLicenses**

packetizerLicenses

protected java.util.Map **packetizerLicenses**

streamNameToGroup

protected java.util.Map **streamNameToGroup**

nameGroups

protected java.util.List **nameGroups**

nameGroupId

protected long **nameGroupId**

streamLock

protected edu.emory.mathcs.backport.java.util.concurrent.locks.WMSReadWriteLock **streamLock**

streamNamesLock

```
protected edu.emory.mathcs.backport.java.util.concurrent.locks.WMSReadWriteLock
streamNamesLock
```

appInstance

```
protected com.wowza.wms.application.IApplicationInstance appInstance
```

mediaStreamListeners

```
protected java.util.List mediaStreamListeners
```

nextStreamId

```
protected java.util.concurrent.atomic.AtomicLong nextStreamId
```

liveStreamPacketizers

```
protected java.util.Map liveStreamPacketizers
```

dvrRecorders

```
protected java.util.Map dvrRecorders
```

Constructors

MediaStreamMap

```
public MediaStreamMap(IApplicationInstance appInstance)
```

Create empty MediaStreamMap collection

Parameters:

appInstance - parent applicationInstance

Methods

getStreamListLock

```
public edu.emory.mathcs.backport.java.util.concurrent.locks.WMSReadWriteLock
getStreamListLock()
```

Get the underlying read/write lock associated with the list of streams

Returns:

underlying read/write lock associated with the list of streams

getStreamNameLock

```
public edu.emory.mathcs.backport.java.util.concurrent.locks.WMSReadWriteLock
getStreamNameLock()
```

Get the underlying read/write lock associated with the stream names list

Returns:
underlying read/write lock associated with the stream names list

getPublishStreamNames

```
public java.util.List getPublishStreamNames()
```

Returns a List of published stream names

Returns:
List of published stream names

getStreams

```
public java.util.List getStreams()
```

Returns a list of IMediaStream objects

Returns:
list of IMediaStream objects

getStream

```
public IMediaStream getStream(IClient client,
        int index)
```

Get a media stream reference by stream id.

Parameters:
client - client
index - stream id

Returns:
media stream object or null if does not exist.

getStreamClientless

```
public IMediaStream getStreamClientless(int index,
        String streamTypeStr)
```

Get a media stream reference by stream id. If it does not exist, create a new one with the given id. This is a clientless stream that is served by the backend of the server. If creating a new media stream object, its id must first be obtained by calling getNextStreamIndex() .

Parameters:
index - stream id
streamTypeStr - stream type

Returns:
media stream object

getStream

```
public IMediaStream getStream(IClient client,
         int index,
      boolean doCreate)
```

Get a media stream reference by stream id. If it does not exist, create a new one with the given id. If creating a new media stream object, its id must first be obtained by calling getNextStreamIndex(IClient).

Parameters:
    client - client
    index - stream id
    doCreate - true to create if it does not exist

Returns:
    media stream object

getStream

```
public IMediaStream getStream(com.wowza.wms.netconnection.INetConnection
netConnection,
         int index)
```

Get a media stream object that is owned by a server to server netConnection object (not yet implemented).

Parameters:
    netConnection - netConnection to remote server
    index - stream id

Returns:
    media stream object or null if does not exist

getStream

```
public IMediaStream getStream(com.wowza.wms.netconnection.INetConnection
netConnection,
         int index,
      boolean doCreate)
```

Get a media stream reference by stream id. If it does not exist, create a new one with the given id. If creating a new media stream object, its id must first be obtained by calling getNextStreamIndex(INetConnection) .

Parameters:
    netConnection - netConnection to remote server
    index - stream id
    doCreate - true to create if it does not exist

Returns:
    media stream object

getStream

```
public IMediaStream getStream(String name)
```

Get a media stream by stream name. Only published live streams are stored in the mediaStreamMap by name. This method is used to lookup a published live stream by name.

Parameters:
    name - stream name

Returns:
> media stream object or null if does not exist

---

setStreamName

```
public void setStreamName(IMediaStream stream,
        String name)
```

Insert live media stream into the mediaStreamMap by name.

Parameters:
> stream - mediea stream object
> name - media stream name

---

clearStreamName

```
public void clearStreamName(String name)
```

Unregister a published live media stream name.

Parameters:
> name - stream name

---

streamToIndex

```
public long streamToIndex(IMediaStream stream)
```

Get the unique stream identifier for a given stream

Parameters:
> stream - stream

Returns:
> unique stream identifier

---

clearStreamName

```
public void clearStreamName(String name,
        IMediaStream stream)
```

Unregister a published live media stream name.

Parameters:
> name - stream name
> stream - stream

---

getNextStreamIndex

```
public int getNextStreamIndex(com.wowza.wms.netconnection.INetConnection
netConnection)
```

Reserve a stream for a netConnection connection. Use getStream(INetConnection, int, boolean) to create stream.

Parameters:
> netConnection

Returns:
> next stream index

getNextStreamIndex

`public int getNextStreamIndex(IClient client)`

Reserve a stream for a client connection. Use `getStream(IClient, int, boolean)` to create stream.

Parameters:
`client` - parent client

Returns:
stream index

getNextStreamIndex

`public int getNextStreamIndex()`

Reserve a clientless stream id for a new media stream. Use this method to obtain a stream id for a new media stream object that is then created with a call to getClientlessStream().

Returns:
new reserved stream id

getCount

`public int getCount()`

Get the total number of streams stored in the mediaStreamMap

Returns:
total number of streams stored in the mediaStreamMap

removeStream

`public void removeStream(com.wowza.wms.netconnection.INetConnection netConnection, int index)`

Remove a stream associated with a netConnection object

Parameters:
`netConnection` - net connection
`index` - stream index

removeStream

`public void removeStream(IClient client, int index)`

Remove a stream associated with a client connection

Parameters:
`client` - client
`index` - stream index

removeStream

`public void removeStream(int index)`

Remove a clientless media stream

Parameters:
index - stream index

getAppName

`public String getAppName()`

Get the name of the parent application.

Returns:
parent application name.

getAppInstanceName

`public String getAppInstanceName()`

Get the name of the parent applicationInstance.

Returns:
parent applicationInstance name

getVHost

`public IVHost getVHost()`

Get the parent vHost.

Returns:
parent vHost

getAppInstance

`public IApplicationInstance getAppInstance()`

Get the parent applicationInstance.

Returns:
parent applicationInstance

notifyPlayUnpublish

`public void notifyPlayUnpublish(IMediaStream stream)`

Notify all play streams that are listening to this stream that the stream is going into a state of unpublished (NetStream.Play.UnpublishNotify).

Parameters:
stream - live published stream that is being unpublished

notifyPlayUnpublish

`public void notifyPlayUnpublish(String streamName)`

Notify all play streams that are listening to this stream name that the stream is going into a state of unpublished (NetStream.Play.UnpublishNotify).

Parameters:
streamName - live published stream that is being unpublished

broadcastGetObjectEncoding

`public int` **`broadcastGetObjectEncoding`**`(`<u>`IMediaStream`</u>` stream)`

Get the minimum object encoding level for the clients playing this stream.

Parameters:
`stream` - publish stream

Returns:
object encoding level (AMF0 or AMF3)

broadcasePlayMessage

`public void` **`broadcasePlayMessage`**`(`<u>`IMediaStream`</u>` stream,`
`        long timecode,`
`        java.nio.ByteBuffer msg,`
`        int objectEncoding)`

Send a broadcast message to all play stream that are listening to this live published stream.

Parameters:
`stream` - media stream
`timecode` - timecode (milliseconds)
`msg` - byte[] of data that will be deserialized as an AMFData object.
`objectEncoding` - object encoding (AMF0 or AMF3)

notifyPlayPublish

`public void` **`notifyPlayPublish`**`(`<u>`IMediaStream`</u>` stream)`

Notify all play streams that are listening to this stream that the stream is going into a state of publish (NetStream.Play.PublishNotify).

Parameters:
`stream` - live published stream that is being published

addMediaStreamListener

`public void` **`addMediaStreamListener`**`(`<u>`IMediaStreamNotify`</u>` mediaStreamListener)`

Add a media stream listener. A media stream listener will receive the following events: onMediaStreamCreate, onMediaStreamDestroy.

Parameters:
`mediaStreamListener` - media stream listener

removeMediaStreamListener

`public void` **`removeMediaStreamListener`**`(`<u>`IMediaStreamNotify`</u>` mediaStreamListener)`

Remove a media stream listener.

Parameters:
`mediaStreamListener` - media stream listener

notifyMediaStreamCreate

public void **notifyMediaStreamCreate**([IMediaStream](#) mediaStream)

Notify all media stream listeners that a new media stream object has been created.

Parameters:
mediaStream - new media stream object

notifyMediaStreamDestroy

public void **notifyMediaStreamDestroy**([IMediaStream](#) mediaStream)

Notify all media stream listeners that a media stream object is being destroyed.

Parameters:
mediaStream - media stream object being destroyed

removeLiveStreamPacketizer

public void **removeLiveStreamPacketizer**(String streamName)

Remove all live stream packetizers for this stream name

Parameters:
streamName - streamName

removeLiveStreamPacketizer

public [ILiveStreamPacketizer](#) **removeLiveStreamPacketizer**(String streamName,
        String packetizerName)

Remove live stream packetizer

Parameters:
streamName - stream name
packetizerName - packetizer id

Returns:
live stream packetizer

getLiveStreamPacketizerLock

public Object **getLiveStreamPacketizerLock**()

Get the lock to the live stream packetizer system

Returns:
lock to the live stream packetizer system

getLiveStreamPacketizer

public [ILiveStreamPacketizer](#) **getLiveStreamPacketizer**(String streamName,
        String packetizerName,
        boolean doCreate)

Get a live stream packetizer by name and packetizer id

Parameters:

```
streamName - stream name
packetizerName - packetizer id
doCreate - create if does not exist
```

Returns:
    live stream packetizer

---

getNextNameGroupId

`public long `**`getNextNameGroupId`**`(MediaStreamMapGroup newGroup)`

---

addNameGroup

`public MediaStreamMapGroup `**`addNameGroup`**`(MediaStreamMapGroup newGroup)`

---

removeNameGroup

`public MediaStreamMapGroup `**`removeNameGroup`**`(int groupId)`

---

removeNameGroup

`public MediaStreamMapGroup `**`removeNameGroup`**`(MediaStreamMapGroup nameGroup)`

---

getNameGroups

`public java.util.Set `**`getNameGroups`**`()`

---

getNameGroupByGroupName

`public MediaStreamMapGroup `**`getNameGroupByGroupName`**`(String groupName)`

---

getNameGroups

`public java.util.Set `**`getNameGroups`**`(String streamName)`

---

getNameGroupStreamNames

`public java.util.Set `**`getNameGroupStreamNames`**`(String streamName)`

---

getDvrRecorder

```
public ILiveStreamDvrRecorder getDvrRecorder(String streamName,
        String recorderName,
        boolean doCreate)
```

Get a DVR recorder by name and recorder name

Parameters:
streamName - stream name
recorderName - packetizer id
doCreate - create if does not exist

Returns:
dvr recorder

removeDvrRecorder

```
public void removeDvrRecorder(String streamName)
```

removeDvrRecorder

```
public ILiveStreamDvrRecorder removeDvrRecorder(String streamName,
        String recorderName)
```

Remove DVR Recorder

Parameters:
streamName - stream name
recorderName - recorder name

Returns:
DVR Recorder

getDvrRecorders

```
public java.util.List getDvrRecorders()
```

Returns a list of ILiveStreamDvrRecorder objects

Returns:
list of ILiveStreamDvrRecorder objects

addLicense

```
public LicenseHolder addLicense(IMediaStream stream,
        int licenseType)
```

addLicense

```
public LicenseHolder addLicense(ILiveStreamPacketizer liveStreamPacketizer,
        int licenseType)
```

Package
com.wowza.wms.stream.livedvr

com.wowza.wms.stream.livedvr
Interface IDvrStreamManagerActionNotify

public interface **IDvrStreamManagerActionNotify**
extends

IDvrActionNotify notify interface for dvr stores. See IApplicationInstance.addDvrStoreListener(IDvrStoreActionNotify storeListener)

Method Summary

void	**onDvrStreamManagerCreate**(IDvrStreamManager dvrMgr) Called when DVR stream manager created but before it is initialized.
void	**onDvrStreamManagerDestroy**(IDvrStreamManager dvrMgr) Called when DVR stream manager destroyed.
void	**onDvrStreamManagerInit**(IDvrStreamManager dvrMgr) Called when DVR stream manager initialized.

Methods

onDvrStreamManagerCreate

public void **onDvrStreamManagerCreate**(IDvrStreamManager dvrMgr)

Called when DVR stream manager created but before it is initialized.

Parameters:
dvrMgr - DVR stream manager

onDvrStreamManagerInit

public void **onDvrStreamManagerInit**(IDvrStreamManager dvrMgr)

Called when DVR stream manager initialized.

Parameters:
dvrMgr - DVR stream manager

onDvrStreamManagerDestroy

public void **onDvrStreamManagerDestroy**(IDvrStreamManager dvrMgr)

Called when DVR stream manager destroyed.

Parameters:
dvrMgr - DVR stream manager

com.wowza.wms.stream.livedvr
Interface ILiveStreamDvrRecorder

public interface **ILiveStreamDvrRecorder**
extends

ILiveStreamDvrRecorder: DVR Recorder interface.

Method Summary

boolean	**canRecordAudio**() True if audio is being recorded
boolean	**canRecordData**() True if data is being recorded
boolean	**canRecordVideo**() True if video is being recorded
IApplicationInstance	**getAppInstance**() Get associated applicationInstance.
IDvrStreamManager	**getDvrManager**() Get DVR recorder's associated DVR stream manager
int	**getDvrRecorderId**() Get the DVR recorder id
LicenseHolder	**getLicenseHolder**()
WMSProperties	**getProperties**() Get properties
String	**getRecordingName**()
IMediaStream	**getStream**() Get the current stream that is being recorded
void	**handlePacket**(IMediaStream stream, AMFPacket packet) Called to handle an incoming packet
void	**init**(String streamName, String recorderName, IApplicationInstance appInstance, DvrRecorderItem dvrRecorderItem) Initialize DVR recorder.
boolean	**isActive**() Is the DVR recorder active
boolean	**isRecording**() Is this stream currently recording.
boolean	**isRecordingPaused**() Is this stream currently paused from recording.

boolean	**pauseRecording**()	
	Request that stream recording pause.	
void	**resetStream**(IMediaStream stream)	
	Called when something happens that forces the stream to reset	
boolean	**resumeRecording**()	
	Request that stream recording resume.	
void	**setDvrRecorderId**(int liveStreamId)	
	Set the DVR recorder id	
void	**setRecordAudio**(boolean recordAudio)	
	Set to true to record audio	
void	**setRecordData**(boolean recordVideo)	
	Set to true to record data	
void	**setRecordingName**(String name)	
void	**setRecordVideo**(boolean recordVideo)	
	Set to true to record video	
void	**setStartRecordingOnStartup**(boolean shouldStartRecordingOnStartup)	
	Set recording behavior of DVR Manager on startup.	
boolean	**shouldStartRecordingOnStartup**()	
	Should DVR start recording when packets start flowing.	
void	**shutdown**()	
	Called to shutdown the DVR recorder	
IDvrStreamManager	**startRecording**()	
	Request that stream recording start.	
void	**startStream**(IMediaStream stream)	
	Called when the stream starts	
boolean	**stopRecording**()	
	Request that stream recording stop.	
void	**touch**(long timecode)	
	Touch the stream to keep it active	

Methods

init

```
public void init(String streamName,
        String recorderName,
        IApplicationInstance appInstance,
        DvrRecorderItem dvrRecorderItem)
```

Initialize DVR recorder.

Parameters:

streamName - stream name

recorderName - DVR recorder name
appInstance - application instance
dvrRecorderItem - DVR recorder

shutdown

public void **shutdown**()

Called to shutdown the DVR recorder

getStream

public IMediaStream **getStream**()

Get the current stream that is being recorded

Returns:
stream

getAppInstance

public IApplicationInstance **getAppInstance**()

Get associated applicationInstance.

Returns:
application Instance

handlePacket

public void **handlePacket**(IMediaStream stream,
        AMFPacket packet)

Called to handle an incoming packet

Parameters:
stream - stream
packet - packet

startStream

public void **startStream**(IMediaStream stream)

Called when the stream starts

Parameters:
stream - stream

resetStream

public void **resetStream**(IMediaStream stream)

Called when something happens that forces the stream to reset

Parameters:
stream - stream

touch

```
public void touch(long timecode)
```

Touch the stream to keep it active

Parameters:
timecode - timecode of touch in milliseconds

isActive

```
public boolean isActive()
```

Is the DVR recorder active

Returns:
true if active

getProperties

```
public WMSProperties getProperties()
```

Get properties

Returns:
properties

getDvrRecorderId

```
public int getDvrRecorderId()
```

Get the DVR recorder id

Returns:
DVR recorder id

setDvrRecorderId

```
public void setDvrRecorderId(int liveStreamId)
```

Set the DVR recorder id

Parameters:
liveStreamId

getDvrManager

```
public IDvrStreamManager getDvrManager()
```

Get DVR recorder's associated DVR stream manager

Returns:
DVR manager

canRecordAudio

```
public boolean canRecordAudio()
```

True if audio is being recorded

Returns:
True if audio is being recorded

setRecordAudio

public void **setRecordAudio**(boolean recordAudio)

Set to true to record audio

Parameters:
recordAudio - true to record audio

canRecordVideo

public boolean **canRecordVideo**()

True if video is being recorded

Returns:
True if video is being recorded

setRecordVideo

public void **setRecordVideo**(boolean recordVideo)

Set to true to record video

Parameters:
recordVideo - true to record video

canRecordData

public boolean **canRecordData**()

True if data is being recorded

Returns:
True if data is being recorded

setRecordData

public void **setRecordData**(boolean recordVideo)

Set to true to record data

Parameters:
recordVideo - true to record data

startRecording

public IDvrStreamManager **startRecording**()

Request that stream recording start.

Returns:
stream manager if successful. null otherwise.

isRecording

`public boolean` **`isRecording`**`()`

Is this stream currently recording. If this stream is not recordable, the method returns false.

Returns:
true if has a recording stream and it is recording.

isRecordingPaused

`public boolean` **`isRecordingPaused`**`()`

Is this stream currently paused from recording. If this stream is not recording and not paused, the method returns false.

Returns:
true if has a recording is paused.

stopRecording

`public boolean` **`stopRecording`**`()`

Request that stream recording stop. Note that this call places the DVR stream in the *not* recording state.

A successful stop will result in registered `IDvrRecordingListener`s to have their `IDvrRecordingListener.recordingStopped(IDvrStreamStore)` method called.

Success only occurs if the stream is already in the recording state `IDvrStreamStore.isRecording()`.

Returns:
store if successful. null otherwise.

pauseRecording

`public boolean` **`pauseRecording`**`()`

Request that stream recording pause. The stream does not have to be actively recording to be paused. For example, it could be paused before packets start flowing.

A successful pause will result in registered `IDvrRecordingListener`s to have their `IDvrRecordingListener.recordingPaused(IDvrStreamStore)` method called.

Returns:
store if successful. null otherwise.

resumeRecording

`public boolean` **`resumeRecording`**`()`

Request that stream recording resume. The stream does not have to be actively recording to be resumed. For example, it could have been paused before the stream started, and this call would move it out of the paused state.

A successful resume will result in registered `IDvrRecordingListener`s to have their `IDvrRecordingListener.recordingResumed(IDvrStreamStore)` method called.

Returns:
store if successful. null otherwise.

setRecordingName

`public void` **`setRecordingName`**`(String name)`

getRecordingName

`public String` **`getRecordingName`**`()`

shouldStartRecordingOnStartup

`public boolean` **`shouldStartRecordingOnStartup`**`()`

> Should DVR start recording when packets start flowing.

> **Returns:**
> > true if should start recording initially, false otherwise

setStartRecordingOnStartup

`public void` **`setStartRecordingOnStartup`**`(boolean shouldStartRecordingOnStartup)`

> Set recording behavior of DVR Manager on startup.

> **Parameters:**
> > `shouldStartRecordingOnStartup` - should recording start when DVR manager starts.

getLicenseHolder

`public LicenseHolder` **`getLicenseHolder`**`()`

com.wowza.wms.stream.livedvr
Interface ILiveStreamDvrRecorderActionNotify

public interface **ILiveStreamDvrRecorderActionNotify**
extends

ILiveStreamDvrRecorderActionNotify: notify interface for dvr recorders.
See Also:
> IApplicationInstance.addDvrRecorderListener(ILiveStreamDvrRecorderActionNotify),

Method Summary

void	**onLiveStreamDvrRecorderCreate**(ILiveStreamDvrRecorder recorder, String streamName) Called when recorder created
void	**onLiveStreamDvrRecorderDestroy**(ILiveStreamDvrRecorder recorder) Called when recorder destroyed
void	**onLiveStreamDvrRecorderInit**(ILiveStreamDvrRecorder recorder, String streamName) Called after recorder is initialized

Methods

onLiveStreamDvrRecorderCreate

public void **onLiveStreamDvrRecorderCreate**(ILiveStreamDvrRecorder recorder,
        String streamName)

> Called when recorder created

> **Parameters:**
> > recorder - recorder
> > streamName - stream name

onLiveStreamDvrRecorderInit

public void **onLiveStreamDvrRecorderInit**(ILiveStreamDvrRecorder recorder,
        String streamName)

> Called after recorder is initialized

> **Parameters:**
> > recorder - recorder
> > streamName - stream name

onLiveStreamDvrRecorderDestroy

public void **onLiveStreamDvrRecorderDestroy**(ILiveStreamDvrRecorder recorder)

> Called when recorder destroyed

Parameters:

    `recorder` - recorder

com.wowza.wms.stream.livedvr
Interface ILiveStreamDvrRecorderControl

public interface **ILiveStreamDvrRecorderControl**
extends

ILiveStreamDvrRecorderControl: interface to control which recorders are run for which streams.
See Also:

IApplicationInstance.setLiveStreamDvrRecorderControl(ILiveStreamDvrRecorderControl)

Method Summary

boolean	shouldDvrRecord(String recorderName, IMediaStream stream)
	Returns true if given string should be recorded.;

Methods

shouldDvrRecord

public boolean **shouldDvrRecord**(String recorderName,
        IMediaStream stream)

Returns true if given string should be recorded.;

Parameters:
recorderName - recorder name
stream - stream

Returns:
true to record

Package

com.wowza.wms.stream.livepacketizer

com.wowza.wms.stream.livepacketizer
Interface ILiveStreamPacketizer

All Subinterfaces:
> IDvrStreamManager

public interface **ILiveStreamPacketizer**
extends

ILiveStreamPacketizer: live stream packetizer interface.

Method Summary

IMediaStream	**getAndSetStartStream**(IMediaStream stream) Get the current stream that is being packetized
IApplicationInstance	**getApplicationInstance**() Get the application instance associated with this live stream packetizer.
int	**getLiveStreamPacketizerId**() Get the live stream packetizer id
WMSProperties	**getProperties**() Get properties
long	**getRepeaterLastSeqence**() Get the sequence number of the last added repeater item
void	**handlePacket**(IMediaStream stream, AMFPacket packet) Called to handle an incoming packet
void	**init**(String streamName, String packetizerName, IApplicationInstance appInstance, LiveStreamPacketizerItem liveStreamPacketizerItem) Initialize live stream packetizer
boolean	**isActive**() Is the live stream packetizer active
boolean	**isPacketizeAudio**() True if audio is being packetized
boolean	**isPacketizeData**() True if data is being packetized
boolean	**isPacketizeVideo**() True if video is being packetized
boolean	**isRepeaterEdge**() Is this packetizer a live repeater edge
void	**resetStream**(IMediaStream stream) Called when something happens that forces the stream to reset
void	**setLiveStreamPacketizerId**(int id) Set the live stream packetizer id

	void	`setPacketizeAudio`(boolean packetizeAudio) Set to true to packetize audio
	void	`setPacketizeData`(boolean packetizeVideo) Set to true to packetize data
	void	`setPacketizeVideo`(boolean packetizeVideo) Set to true to packetize video
	void	`setRepeaterEdge`(boolean isRepeaterEdge) Set is live repeater edge
	void	`shutdown`() Called to shutdown the live stream packetizer
	void	`startStream`(`IMediaStream` stream) Called when the stream starts
	void	`touch`(long timecode) Touch the stream to keep it active

Methods

init

```
public void init(String streamName,
        String packetizerName,
        IApplicationInstance appInstance,
        LiveStreamPacketizerItem liveStreamPacketizerItem)
```

Initialize live stream packetizer

Parameters:
streamName - stream name
packetizerName - packetizer name
appInstance - application instance
liveStreamPacketizerItem - live stream packetizer

shutdown

```
public void shutdown()
```

Called to shutdown the live stream packetizer

isActive

```
public boolean isActive()
```

Is the live stream packetizer active

Returns:
true if active

getProperties

```
public WMSProperties getProperties()
```

Get properties

Returns:
>   properties

getRepeaterLastSeqence

```
public long getRepeaterLastSeqence()
```

>   Get the sequence number of the last added repeater item

>   **Returns:**
>   >   sequence number

getLiveStreamPacketizerId

```
public int getLiveStreamPacketizerId()
```

>   Get the live stream packetizer id

>   **Returns:**
>   >   live stream packetizer id

setLiveStreamPacketizerId

```
public void setLiveStreamPacketizerId(int id)
```

>   Set the live stream packetizer id

>   **Parameters:**
>   >   id

handlePacket

```
public void handlePacket(IMediaStream stream,
        AMFPacket packet)
```

>   Called to handle an incoming packet

>   **Parameters:**
>   >   stream - stream
>   >   packet - packet

startStream

```
public void startStream(IMediaStream stream)
```

>   Called when the stream starts

>   **Parameters:**
>   >   stream - stream

resetStream

```
public void resetStream(IMediaStream stream)
```

>   Called when something happens that forces the stream to reset

>   **Parameters:**

> stream - stream

touch

public void **touch**(long timecode)

> Touch the stream to keep it active

> ### Parameters:
> > timecode - timecode of touch in milliseconds

isRepeaterEdge

public boolean **isRepeaterEdge**()

> Is this packetizer a live repeater edge

> ### Returns:
> > true if live repeater edge

setRepeaterEdge

public void **setRepeaterEdge**(boolean isRepeaterEdge)

> Set is live repeater edge

> ### Parameters:
> > isRepeaterEdge - is live repeater edge

isPacketizeAudio

public boolean **isPacketizeAudio**()

> True if audio is being packetized

> ### Returns:
> > True if audio is being packetized

setPacketizeAudio

public void **setPacketizeAudio**(boolean packetizeAudio)

> Set to true to packetize audio

> ### Parameters:
> > packetizeAudio - true to packetize audio

isPacketizeVideo

public boolean **isPacketizeVideo**()

> True if video is being packetized

> ### Returns:
> > True if video is being packetized

setPacketizeVideo

public void **setPacketizeVideo**(boolean packetizeVideo)

Set to true to packetize video

Parameters:
packetizeVideo - true to packetize video

isPacketizeData

public boolean **isPacketizeData**()

True if data is being packetized

Returns:
True if data is being packetized

setPacketizeData

public void **setPacketizeData**(boolean packetizeVideo)

Set to true to packetize data

Parameters:
packetizeVideo - true to packetize data

getAndSetStartStream

public IMediaStream **getAndSetStartStream**(IMediaStream stream)

Get the current stream that is being packetized

Returns:
stream

getApplicationInstance

public IApplicationInstance **getApplicationInstance**()

Get the application instance associated with this live stream packetizer.

Returns:
application instance

com.wowza.wms.stream.livepacketizer
Interface ILiveStreamPacketizerActionNotify

public interface **ILiveStreamPacketizerActionNotify**
extends

ILiveStreamPacketizerActionNotify: notify interface for live stream packetizers. See
IApplicationInstance.addLiveStreamPacketizerListener(ILiveStreamPacketizerActionNotify liveStreamPacketizerListener)

Method Summary

void	onLiveStreamPacketizerCreate(ILiveStreamPacketizer liveStreamPacketizer, String streamName) Called when packetizer created
void	onLiveStreamPacketizerDestroy(ILiveStreamPacketizer liveStreamPacketizer) Called when packetizer destroyed
void	onLiveStreamPacketizerInit(ILiveStreamPacketizer liveStreamPacketizer, String streamName) Called after packetizer is initialized

Methods

onLiveStreamPacketizerCreate

public void **onLiveStreamPacketizerCreate**(ILiveStreamPacketizer liveStreamPacketizer,
          String streamName)

Called when packetizer created

Parameters:
liveStreamPacketizer - packetizer
streamName - stream name

onLiveStreamPacketizerDestroy

public void **onLiveStreamPacketizerDestroy**(ILiveStreamPacketizer liveStreamPacketizer)

Called when packetizer destroyed

Parameters:
liveStreamPacketizer - packetizer

onLiveStreamPacketizerInit

public void **onLiveStreamPacketizerInit**(ILiveStreamPacketizer liveStreamPacketizer,
          String streamName)

Called after packetizer is initialized

Parameters:

liveStreamPacketizer - packetizer
streamName - stream name

liveStreamPacketizer - packetizer
streamName - stream name

com.wowza.wms.stream.livepacketizer
Interface ILiveStreamPacketizerControl

public interface **ILiveStreamPacketizerControl**
extends

ILiveStreamPacketizerControl: interface to control which packetizers are run for which streams. See:
IApplicationInstance.setLiveStreamPacketizerControl(ILiveStreamPacketizerControl liveStreamPacketizerControl)

Method Summary

boolean	**isLiveStreamPacketize**(String packetizer, IMediaStream stream) Return true to packetize stream

Methods

isLiveStreamPacketize

public boolean **isLiveStreamPacketize**(String packetizer,
        IMediaStream stream)

Return true to packetize stream

Parameters:
packetizer - packetizer name
stream - stream

Returns:
true to packetize

Package

com.wowza.wms.stream.livetranscoder

com.wowza.wms.stream.livetranscoder
Interface ILiveStreamTranscoder

public interface **ILiveStreamTranscoder**
extends

ILiveStreamTranscoder: Interface to live stream transcoder.

Method Summary

void	**close**(`IMediaStream` stream) Called when live stream transcoder is stream is closed
`IApplicationInstance`	**getAppInstance**() Get the application instance associated with this live stream transcoder.
String	**getContextStr**() Get the streaming context for this live stream transcoder.
LicenseHolder	**getLicenseHolder**() Get license holder.
LiveStreamTranscoderItem	**getLiveStreamTranscoderItem**() Get the definition for live stream transcoder.
`WMSProperties`	**getProperties**() Get the user properties
String	**getStreamName**() Get the stream name of the source stream.
String	**getTranscoderName**() Get the live stream transcoder name
void	**handleOnMetadata**(`IMediaStream` stream, `AMFPacket` packet, long timecode, boolean isSetDataFrame) Called for each new onMetaData packet
void	**handlePacket**(`IMediaStream` stream, `AMFPacket` packet) Called for each new source packet
void	**init**(String streamName, `IMediaStream` stream, String transcoderName, `IApplicationInstance` appInstance, LiveStreamTranscoderItem liveStreamTranscoderItem) Called when live stream transcoder interface is initialized.
boolean	**isTemplateLoaded**() Is the transcoder template loaded.
boolean	**isTranscoderActive**(long currTime) Returns true if the transcoder is actively receiving packets
void	**resetStream**(`IMediaStream` stream) Called when source stream changes.

	void	setAppInstance(IApplicationInstance appInstance) Set the application instance associated with this live stream transcoder.
	void	setLiveStreamTranscoderItem(LiveStreamTranscoderItem liveStreamTranscoderItem) Set the definition for live stream transcoder.
	void	setStreamName(String streamName) Set source stream name.
	void	setTranscoderName(String transcoderName) Get the live stream transcoder name
	void	shutdown(IMediaStream stream) Called when live stream transcoder is shutdown

Methods

init

```
public void init(String streamName,
        IMediaStream stream,
        String transcoderName,
        IApplicationInstance appInstance,
        LiveStreamTranscoderItem liveStreamTranscoderItem)
```

Called when live stream transcoder interface is initialized.

Parameters:
streamName - stream name

transcoderName - transcoder name

appInstance - application instance

liveStreamTranscoderItem - live stream transcoder config item

handlePacket

```
public void handlePacket(IMediaStream stream,
        AMFPacket packet)
```

Called for each new source packet

Parameters:
stream - stream

packet - packet

handleOnMetadata

```
public void handleOnMetadata(IMediaStream stream,
        AMFPacket packet,
        long timecode,
        boolean isSetDataFrame)
```

Called for each new onMetaData packet

Parameters:
stream - stream

packet - packet

timecode - timecode (milliseconds)

      `isSetDataFrame` - is SetDataFrame call

---

resetStream

`public void` **`resetStream`**`(`[`IMediaStream`](#)` stream)`

   Called when source stream changes.

     Parameters:
        `stream` - stream interface

---

close

`public void` **`close`**`(`[`IMediaStream`](#)` stream)`

   Called when live stream transcoder is stream is closed

     Parameters:
        `stream` - stream interface

---

shutdown

`public void` **`shutdown`**`(`[`IMediaStream`](#)` stream)`

   Called when live stream transcoder is shutdown

     Parameters:
        `stream` - stream interface

---

getStreamName

`public String` **`getStreamName`**`()`

   Get the stream name of the source stream.

     Returns:
        stream name of the source stream

---

setStreamName

`public void` **`setStreamName`**`(String streamName)`

   Set source stream name.

     Parameters:
        `streamName` - source stream name

---

getTranscoderName

`public String` **`getTranscoderName`**`()`

   Get the live stream transcoder name

     Returns:
        live stream transcoder name

(continued from last page)

setTranscoderName

public void **setTranscoderName**(String transcoderName)

> Get the live stream transcoder name

> #### Parameters:
> > transcoderName - live stream transcoder name

getAppInstance

public [IApplicationInstance](#) **getAppInstance**()

> Get the application instance associated with this live stream transcoder.

> #### Returns:
> > application instance associated with this live stream transcoder

setAppInstance

public void **setAppInstance**([IApplicationInstance](#) appInstance)

> Set the application instance associated with this live stream transcoder.

> #### Parameters:
> > appInstance - application instance associated with this live stream transcoder

getLiveStreamTranscoderItem

public LiveStreamTranscoderItem **getLiveStreamTranscoderItem**()

> Get the definition for live stream transcoder.

> #### Returns:
> > definition for live stream transcoder

setLiveStreamTranscoderItem

public void **setLiveStreamTranscoderItem**(LiveStreamTranscoderItem
liveStreamTranscoderItem)

> Set the definition for live stream transcoder.

> #### Parameters:
> > liveStreamTranscoderItem - definition for live stream transcoder

getProperties

public [WMSProperties](#) **getProperties**()

> Get the user properties

> #### Returns:
> > user properties

getLicenseHolder

public LicenseHolder **getLicenseHolder**()

Get license holder.

Returns:
license holder

---

isTranscoderActive

public boolean **isTranscoderActive**(long currTime)

Returns true if the transcoder is actively receiving packets

Parameters:
currTime - current timecode in milliseconds

Returns:
true if the transcoder is actively receiving packets

---

isTemplateLoaded

public boolean **isTemplateLoaded**()

Is the transcoder template loaded.

Returns:
true if transcoder template is loaded.

---

getContextStr

public String **getContextStr**()

Get the streaming context for this live stream transcoder.

Returns:
streaming context for this live stream transcoder

com.wowza.wms.stream.livetranscoder
Interface ILiveStreamTranscoderControl

public interface **ILiveStreamTranscoderControl**
extends

Interface used to control if stream is transcoded. See
IApplicationInstance.setLiveStreamTranscoderControl(ILiveStreamTranscoderControl)

Method Summary

boolean	**isLiveStreamTranscode**(String transcoder, IMediaStream stream) Called each time a new publishing stream is started.

Methods

isLiveStreamTranscode

public boolean **isLiveStreamTranscode**(String transcoder,
        IMediaStream stream)

Called each time a new publishing stream is started. Return true if you wish stream to be transcoded. See
IApplicationInstance.setLiveStreamTranscoderControl(ILiveStreamTranscoderControl)

Parameters:
    transcoder - name of transcoder
    stream - stream interface

Returns:
    true if wish stream to be transcoded

com.wowza.wms.stream.livetranscoder
Interface ILiveStreamTranscoderNotify

public interface **ILiveStreamTranscoderNotify**
extends

ILiveStreamTranscoderNotify: Listener interface for listening for new live stream transcoders. See
IApplicationInstance.addLiveStreamTranscoderListener(ILiveStreamTranscoderNotify)

Method Summary

void	**onLiveStreamTranscoderCreate**(ILiveStreamTranscoder liveStreamTranscoder, IMediaStream stream) Triggered when live stream transcoder is created.
void	**onLiveStreamTranscoderDestroy**(ILiveStreamTranscoder liveStreamTranscoder, IMediaStream stream) Triggered when live stream transcoder is destroyed.
void	**onLiveStreamTranscoderInit**(ILiveStreamTranscoder liveStreamTranscoder, IMediaStream stream) Triggered after live stream transcoder is initialized.

Methods

onLiveStreamTranscoderCreate

public void **onLiveStreamTranscoderCreate**(ILiveStreamTranscoder liveStreamTranscoder,
        IMediaStream stream)

Triggered when live stream transcoder is created.

Parameters:
    liveStreamTranscoder - live stream transcoder
    stream - source stream

onLiveStreamTranscoderDestroy

public void **onLiveStreamTranscoderDestroy**(ILiveStreamTranscoder liveStreamTranscoder,
        IMediaStream stream)

Triggered when live stream transcoder is destroyed.

Parameters:
    liveStreamTranscoder - live stream transcoder
    stream - source stream

onLiveStreamTranscoderInit

public void **onLiveStreamTranscoderInit**(ILiveStreamTranscoder liveStreamTranscoder,
        IMediaStream stream)

Triggered after live stream transcoder is initialized.

Parameters:

    `liveStreamTranscoder` - live stream transcoder

    `stream` - source stream

Package

com.wowza.wms.stream.publish

com.wowza.wms.stream.publish
Interface IPublishingProvider

All Known Implementing Classes:
> PublishingProviderMediaReader, PublishingProviderLive

---

public interface **IPublishingProvider**
extends

IPublishingProvider: publishing provider interface.

Method Summary

void	**close**() Invoked on stream close
boolean	**isSendOnMetadata**() Get to send onMetadata event when stream starts
boolean	**play**(Publisher publisher) Invoked on play
boolean	**seek**(long timecode) Invoked on seek
boolean	**seek**(long timecode, int seekType) Invoked on seek
void	**setDuration**(long duration) Set target duration for playback (milliseconds)
void	**setRealTimeStartTime**(long realTimeStartTime) Set real start time (milliseconds)
void	**setSendOnMetadata**(boolean sendOnMetadata) Set to send onMetadata event when stream starts

---

Methods

play

public boolean **play**(Publisher publisher)

> Invoked on play

> **Parameters:**
> > `publisher` - publisher

> **Returns:**
> > true if successful

---

close

```
public void close()
```

Invoked on stream close

seek

```
public boolean seek(long timecode,
          int seekType)
```

Invoked on seek

Parameters:
timecode - target timecode
seekType - seek type, see IMediaReader.SEEKTARGET_*

Returns:
true, if seek successful

seek

```
public boolean seek(long timecode)
```

Invoked on seek

Parameters:
timecode - target timecode

Returns:
true, if seek successful

setDuration

```
public void setDuration(long duration)
```

Set target duration for playback (milliseconds)

Parameters:
duration - duration for playback (milliseconds)

setRealTimeStartTime

```
public void setRealTimeStartTime(long realTimeStartTime)
```

Set real start time (milliseconds)

Parameters:
realTimeStartTime - real start time (milliseconds)

setSendOnMetadata

```
public void setSendOnMetadata(boolean sendOnMetadata)
```

Set to send onMetadata event when stream starts

Parameters:
sendOnMetadata - true to send onMetadata event

isSendOnMetadata

```
public boolean isSendOnMetadata()
```

> Get to send onMetadata event when stream starts

> Returns:
>> true to send onMetadata event

isSendOnMetadata

```
public boolean isSendOnMetadata()
```

com.wowza.wms.stream.publish
Interface IStreamActionNotify

public interface **IStreamActionNotify**
extends

IStreamActionNotify: listener interface to Stream class for playlist items. See Stream.addListener(IStreamActionNotify listener)

Method Summary

void	onPlaylistItemStart(Stream stream, PlaylistItem playlistItem) Invoked when playlist item playback is started
void	onPlaylistItemStop(Stream stream, PlaylistItem playlistItem) Invoked when playlist item playback has ended

Methods

onPlaylistItemStart

public void **onPlaylistItemStart**(Stream stream,
        PlaylistItem playlistItem)

Invoked when playlist item playback is started

Parameters:
        stream - stream
        playlistItem - playlist item

onPlaylistItemStop

public void **onPlaylistItemStop**(Stream stream,
        PlaylistItem playlistItem)

Invoked when playlist item playback has ended

Parameters:
        stream - stream
        playlistItem - playlist item

com.wowza.wms.stream.publish
Class Playlist

```
java.lang.Object
    │
    +-com.wowza.wms.stream.publish.Playlist
```

public class **Playlist**
extends Object

Constructor Summary

public	**Playlist**(String sName) Class constructor - A simple structure that maintains a list of playlist items.

Method Summary

void	**addItem**(String sName, int start, int length) Appends an item to this playlist
java.util.List	**getItems**() Get the items in the playlist (returns a copy of the list)
String	**getName**() Returns the name of this playlist as defined in the XML definition file
boolean	**getRepeat**()
boolean	**open**(Stream s) Opens this playlist on the given stream...
void	**removeItem**(int index) Remove an item from the list
void	**setRepeat**(boolean repeat)

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

Playlist

public **Playlist**(String sName)

Class constructor - A simple structure that maintains a list of playlist items.

Parameters:
sName - - name of playlist - as defined in the XML definition file

Methods

getItems

`public java.util.List getItems()`

>   Get the items in the playlist (returns a copy of the list)

>   **Returns:**
>   >   items in the playlist (returns a copy of the list)

getRepeat

`public boolean getRepeat()`

setRepeat

`public void setRepeat(boolean repeat)`

addItem

```
public void addItem(String sName,
         int start,
         int length)
```

>   Appends an item to this playlist

>   **Parameters:**
>   >   `sName` - - item name
>   >   `start` - - start seconds
>   >   `length` - - playlength seconds

removeItem

`public void removeItem(int index)`

>   Remove an item from the list

>   **Parameters:**
>   >   `index` - index of item to remove

open

`public boolean open(`[Stream](#)` s)`

>   Opens this playlist on the given stream... stopping anything currently playing on that stream and switching over.

>   **Parameters:**
>   >   `s` - - stream to play on

>   **Returns:**
>   >   - true if successful

getName

`public String **getName**()`

Returns the name of this playlist as defined in the XML definition file

Returns:
name of this playlist

getName

`public String **getName**()`

com.wowza.wms.stream.publish
Class PlaylistItem

```
java.lang.Object
    |
    +-com.wowza.wms.stream.publish.PlaylistItem
```

public class **PlaylistItem**
extends Object

Constructor Summary

public	**PlaylistItem**(String name, int start, int length, int index) Class constructor - A simple structure to define parameters associated with a playlist item

Method Summary

int	**getIndex**()
int	**getLength**() Number of seconds of track to play
String	**getName**() Name of playlist stream
int	**getStart**() Number of seconds into track to start from
void	**setIndex**(int index)
String	**toString**()

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

PlaylistItem

```
public PlaylistItem(String name,
                    int start,
                    int length,
                    int index)
```

Class constructor - A simple structure to define parameters associated with a playlist item

Parameters:
name - - name of the playlist stream
start - - number of seconds into the track to start from (-2 means live stream)

        length - - number of seconds of track to play
        index - - index in the playlist

Methods

getName

```
public String getName()
```

> Name of playlist stream
>
> ### Returns:
> - name of stream

getStart

```
public int getStart()
```

> Number of seconds into track to start from
>
> ### Returns:
> - number of seconds

getLength

```
public int getLength()
```

> Number of seconds of track to play
>
> ### Returns:
> - number of seconds

getIndex

```
public int getIndex()
```

setIndex

```
public void setIndex(int index)
```

toString

```
public String toString()
```

com.wowza.wms.stream.publish
Class Publisher

```
java.lang.Object
    │
    +-com.wowza.wms.stream.publish.Publisher
```

public class **Publisher**
extends Object

Publisher: clientless stream publisher. This class can be used to publish raw video, audio and metadata packets to the Wowza Pro server. Here is a quick snippet of code that illustrates how to use it.

This code below will publish data the stream named "myStream". It will be streamed to the default virtual host and avaible at the rtmp address rtmp://[server-ip-address]/streamtest.

```
IVHost vhost = VHostSingleton.getInstance(VHost.VHOST_DEFAULT);
Publisher publisher = Publisher.createInstance(vhost, "streamtest");

publisher.setFileExtension("flv");
publisher.setStreamType("live");

publisher.publish("myStream", "live");

// sit in a loop adding data
boolean done = false;
while(true)
{
        AMFPacket amfPacket;

        // read packet from audio, video, data source
        // amfPacket = readPacketFromSomewhere();

        switch (amfPacket.getType())
        {
        case IVHost.CONTENTTYPE_AUDIO:
                publisher.addAudioData(amfPacket.getData(), amfPacket.getSize(),
amfPacket.getTimecode());
                break;
        case IVHost.CONTENTTYPE_VIDEO:
                publisher.addVideoData(amfPacket.getData(), amfPacket.getSize(),
amfPacket.getTimecode());
                break;
        case IVHost.CONTENTTYPE_DATA:
                publisher.addDataData(amfPacket.getData(), amfPacket.getSize(),
amfPacket.getTimecode());
                break;
        }
        if (done)
                break;
}

publisher.unpublish();
publisher.close();
```

```
Basic packet format:

Audio:

AAC
[1-byte header]
[1-byte codec config indicator (1 - audio data, 0 - codec config packet)]
[n-bytes audio content or codec config data]

All others
[1-byte header]
[n-bytes audio content]

Below is the bit
layout of the header byte of data (table goes from least significant bit to most significant
bit):

1 bit Number of channels:
   0    mono
   1    stereo

1 bit Sample size:
   0    8 bits per sample
   1    16 bits per sample

2 bits Sample rate:
   0    special or 8KHz
   1    11KHz
   2    22KHz
   3    44KHz

4 bits Audio type:
   0    PCM (big endian)
   1    PCM (swf - ADPCM)
   2    MP3
   3    PCM (little endian)
   4    Nelly Moser ASAO 16KHz Mono
   5    Nelly Moser ASAO 8KHz Mono
   6    Nelly Moser ASAO
   7    G.711 ALaw
   8    G.711 MULaw
   9    Reserved
   a    AAC
   b    Speex
   f    MP3 8Khz

Note: For AAC the codec config data is generally a two byte packet that describes the stream.
It must
be published first. Here is the basic code to fill in the codec config data.

AACFrame frame = new AACFrame();
```

```
int sampleRate = 22100;
int channels = 2;
frame.setSampleRate(sampleRate);
frame.setRateIndex(AACUtils.sampleRateToIndex(sampleRate));
frame.setChannels(channels);
frame.setChannelIndex(AACUtils.channelCountToIndex(sampleRate));
byte[] codecConfig = new byte[2];
AACUtils.encodeAACCodecConfig(frame, codecConfig, 0);


Note: For AAC the header byte is always 0xaf


Note: For Speex the audio data must be encoded as 16000Hz wide band


Video:


H.264
[1-byte header]
[1-byte codec config indicator (1 - video data, 0 - codec config packet)]
[3-byte time difference between dts and pts in milliseconds]
[n-bytes video content or codec config data]


All others
[1-byte header]
[n-bytes audio content]


Below is the bit layout of the header byte of data (table goes from least significant bit to
most significant bit):


4 bits Video type:
    2    Sorenson Spark (H.263)
    3    Screen
    4    On2 VP6
    5    On2 VP6A
    6    Screen2
    7    H.264


2 bit Frame type:
    1    K frame (key frame)
    2    P frame
    3    B frame


Note: H.264 codec config data is the same as the AVCc packet in a QuickTime container.


Note: All timecode data is in milliseconds
```

Method Summary

void	**addAudioData**(byte[] data, int offset, int len, long timecode) Add audio data	
void	**addAudioData**(byte[] data, int len, long timecode) Add audio data	
void	**addAudioData**(byte[] data, long timecode) Add audio data	
void	**addAudioDataInc**(byte[] data, int offset, int len)	
void	**addDataData**(byte[] data, int offset, int len, long timecode) Add metadata	
void	**addDataData**(byte[] data, int len, long timecode) Add metadata	
void	**addDataData**(byte[] data, long timecode) Add metadata	
void	**addDataDataInc**(byte[] data, int offset, int len)	
void	**addVideoData**(byte[] data, int offset, int len, long timecode) Add video data	
void	**addVideoData**(byte[] data, int len, long timecode) Add video data	
void	**addVideoData**(byte[] data, long timecode) Add video data	
void	**addVideoDataInc**(byte[] data, int offset, int len)	
void	**close**() Close the publisher	
static **Publisher**	**createInstance**(**IApplicationInstance** appInstance)	
static **Publisher**	**createInstance**(**IVHost** vhost, String applicationName)	
static **Publisher**	**createInstance**(**IVHost** vhost, String applicationName, String appInstanceName)	
void	**createStream**() Create underlying IMediaStream object if not already created	
void	**flush**() Flush the packets from the input buffer to the output buffer	
IApplicationInstance	**getAppInstance**()	
String	**getFileExtension**() Get the file extension (default flv)	
long	**getLastAudioTimecode**() Get last audio timecode written through this publisher (millseconds).	

long	`getLastDataTimecode()` Get last data timecode written through this publisher (millseconds).	
long	`getLastVideoTimecode()` Get last video timecode written through this publisher (millseconds).	
long	`getMaxTimecode()` Highest timecode written through this publisher (millseconds).	
[IMediaStream](#)	`getStream()` Get the media stream object	
String	`getStreamType()`	
boolean	`isPublishDataEvents()`	
void	`publish(String streamName)` Publish a stream (null to stop publishing)	
void	`publish(String streamName, String howToPublish)` Start publishing a stream (streamName = null to stop).	
void	`setFileExtension(String fileExtension)` Set the file extension	
void	`setPublishDataEvents(boolean publishDataEvents)`	
void	`setStreamType(String streamType)` Set the stream type (default live)	
void	`startAudioData(int len, long timecode)`	
void	`startDataData(int len, long timecode)`	
void	`startVideoData(int len, long timecode)`	
void	`unpublish()`	

Methods inherited from class `java.lang.Object`

`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods

createInstance

`public static` [`Publisher`](#) **`createInstance`**`(`[`IVHost`](#)` vhost,`
`        String applicationName)`

createInstance

```
public static Publisher createInstance(IVHost vhost,
        String applicationName,
        String appInstanceName)
```

createInstance

```
public static Publisher createInstance(IApplicationInstance appInstance)
```

getStream

```
public IMediaStream getStream()
```

>   Get the media stream object

>   ### Returns:
>   media stream object

getStreamType

```
public String getStreamType()
```

setStreamType

```
public void setStreamType(String streamType)
```

>   Set the stream type (default live)

>   ### Parameters:
>   streamType - stream type

publish

```
public void publish(String streamName)
```

>   Publish a stream (null to stop publishing)

>   ### Parameters:
>   streamName - stream name

getFileExtension

```
public String getFileExtension()
```

>   Get the file extension (default flv)

>   ### Returns:
>   file extension

setFileExtension

public void **setFileExtension**(String fileExtension)

Set the file extension

Parameters:
fileExtension - file extension

getAppInstance

public [IApplicationInstance](#) **getAppInstance**()

unpublish

public void **unpublish**()

createStream

public void **createStream**()

Create underlying IMediaStream object if not already created

publish

public void **publish**(String streamName,
        String howToPublish)

Start publishing a stream (streamName = null to stop). Valid howToPublish values are (live, record, append)

Parameters:
streamName - stream name
howToPublish - publish method (live, record, append)

addVideoData

public void **addVideoData**(byte[] data,
        long timecode)

Add video data

Parameters:
data - data
timecode - absolute timecode (milliseconds)

addVideoData

public void **addVideoData**(byte[] data,
        int len,
        long timecode)

Add video data

Parameters:
data - data

```
len - data length
timecode - absolute timecode (milliseconds)
```

addVideoData

```
public void addVideoData(byte[] data,
        int offset,
        int len,
        long timecode)
```

Add video data

Parameters:
```
data - data
offset - offset
len - data length
```
timecode - absolute timecode (milliseconds)

startVideoData

```
public void startVideoData(int len,
        long timecode)
```

addVideoDataInc

```
public void addVideoDataInc(byte[] data,
        int offset,
        int len)
```

startAudioData

```
public void startAudioData(int len,
        long timecode)
```

addAudioDataInc

```
public void addAudioDataInc(byte[] data,
        int offset,
        int len)
```

addAudioData

```
public void addAudioData(byte[] data,
        long timecode)
```

Add audio data

Parameters:
```
data - data
```
timecode - absolute timecode (milliseconds)

addAudioData

```
public void addAudioData(byte[] data,
        int len,
        long timecode)
```

Add audio data

Parameters:
data - data
len - data length
timecode - absolute timecode (milliseconds)

addAudioData

```
public void addAudioData(byte[] data,
        int offset,
        int len,
        long timecode)
```

Add audio data

Parameters:
data - data
len - data length
offset - offset
timecode - absolute timecode (milliseconds)

addDataData

```
public void addDataData(byte[] data,
        long timecode)
```

Add metadata

Parameters:
data - data
timecode - absolute timecode (milliseconds)

addDataData

```
public void addDataData(byte[] data,
        int len,
        long timecode)
```

Add metadata

Parameters:
data - data
len - data length
timecode - absolute timecode (milliseconds)

addDataData

```
public void addDataData(byte[] data,
        int offset,
        int len,
        long timecode)
```

Add metadata

Parameters:
data - data
offset - offset
len - data length
timecode - absolute timecode (milliseconds)

startDataData

```
public void startDataData(int len,
        long timecode)
```

addDataDataInc

```
public void addDataDataInc(byte[] data,
        int offset,
        int len)
```

flush

```
public void flush()
```

Flush the packets from the input buffer to the output buffer

close

```
public void close()
```

Close the publisher

getMaxTimecode

```
public long getMaxTimecode()
```

Highest timecode written through this publisher (millseconds).

Returns:
highest timecode written through this publisher (millseconds)

getLastAudioTimecode

```
public long getLastAudioTimecode()
```

Get last audio timecode written through this publisher (millseconds).

Returns:
last audio timecode written through this publisher (millseconds).

getLastVideoTimecode

```
public long getLastVideoTimecode()
```

Get last video timecode written through this publisher (millseconds).

Returns:

last video timecode written through this publisher (millseconds).

getLastDataTimecode

`public long` **`getLastDataTimecode`**`()`

Get last data timecode written through this publisher (millseconds).

Returns:
last data timecode written through this publisher (millseconds).

isPublishDataEvents

`public boolean` **`isPublishDataEvents`**`()`

setPublishDataEvents

`public void` **`setPublishDataEvents`**`(boolean publishDataEvents)`

com.wowza.wms.stream.publish
Class PublishingProviderBase

```
java.lang.Object
   │
   +-com.wowza.wms.stream.publish.PublishingProviderBase
```

Direct Known Subclasses:
  [PublishingProviderMediaReader](), [PublishingProviderLive]()

---

public class **PublishingProviderBase**
extends Object

PublishingProviderBase: Base class for publishing providers.

Field Summary

protected	[sendOnMetadata]()

Constructor Summary

public	[PublishingProviderBase]()

Method Summary

boolean	[isSendOnMetadata]()() True to send onMetadata event on stream start
void	[setSendOnMetadata](boolean sendOnMetadata) True to send onMetadata event on stream start

Methods inherited from class java.lang.Object
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

---

Fields

sendOnMetadata

protected boolean **sendOnMetadata**

Constructors

PublishingProviderBase

public **PublishingProviderBase**()

Methods

isSendOnMetadata

`public boolean isSendOnMetadata()`

True to send onMetadata event on stream start

Returns:
True to send onMetadata event on stream start

---

setSendOnMetadata

`public void setSendOnMetadata(boolean sendOnMetadata)`

True to send onMetadata event on stream start

Parameters:
`sendOnMetadata` - True to send onMetadata event on stream start

com.wowza.wms.stream.publish
Class PublishingProviderLive

```
java.lang.Object
   |
   +-com.wowza.wms.stream.publish.PublishingProviderBase
         |
         +-com.wowza.wms.stream.publish.PublishingProviderLive
```

All Implemented Interfaces:
>   IPublishingProvider

---

public class **PublishingProviderLive**
extends PublishingProviderBase
implements IPublishingProvider

Fields inherited from class com.wowza.wms.stream.publish.PublishingProviderBase
sendOnMetadata

Constructor Summary

public	**PublishingProviderLive**(Publisher publisher, long timeoffset, String streamName)

Method Summary

void	close()
long	getDuration()
long	getStartOnPreviousBufferTime()
boolean	isStartOnPreviousKeyFrame()
boolean	isStopIfStreamMissing()
boolean	play(Publisher publisher)
boolean	seek(long timecode)
boolean	seek(long timecode, int seekType)
void	setDuration(long duration)
void	setRealTimeStartTime(long realTimeStartTime)
void	setStartOnPreviousBufferTime(long startOnPreviousBufferTime)

void	**setStartOnPreviousKeyFrame**(boolean startOnPreviousKeyFrame)
void	**setStopIfStreamMissing**(boolean stopIfStreamMissing)

Methods inherited from class com.wowza.wms.stream.publish.PublishingProviderBase

isSendOnMetadata, setSendOnMetadata

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Methods inherited from interface com.wowza.wms.stream.publish.IPublishingProvider

close, isSendOnMetadata, play, seek, seek, setDuration, setRealTimeStartTime, setSendOnMetadata

Constructors

PublishingProviderLive

```
public PublishingProviderLive(Publisher publisher,
                              long timeoffset,
                              String streamName)
```

Methods

close

```
public void close()
```

play

```
public boolean play(Publisher publisher)
```

seek

```
public boolean seek(long timecode)
```

seek

```
public boolean seek(long timecode,
        int seekType)
```

getDuration

```
public long getDuration()
```

setDuration

```
public void setDuration(long duration)
```

setRealTimeStartTime

```
public void setRealTimeStartTime(long realTimeStartTime)
```

isStartOnPreviousKeyFrame

```
public boolean isStartOnPreviousKeyFrame()
```

setStartOnPreviousKeyFrame

```
public void setStartOnPreviousKeyFrame(boolean startOnPreviousKeyFrame)
```

getStartOnPreviousBufferTime

```
public long getStartOnPreviousBufferTime()
```

setStartOnPreviousBufferTime

```
public void setStartOnPreviousBufferTime(long startOnPreviousBufferTime)
```

isStopIfStreamMissing

```
public boolean isStopIfStreamMissing()
```

setStopIfStreamMissing

```
public void setStopIfStreamMissing(boolean stopIfStreamMissing)
```

com.wowza.wms.stream.publish
Class PublishingProviderMediaReader

```
java.lang.Object
   │
   +-com.wowza.wms.stream.publish.PublishingProviderBase
          │
          +-com.wowza.wms.stream.publish.PublishingProviderMediaReader
```

All Implemented Interfaces:
> IPublishingProvider

---

public class **PublishingProviderMediaReader**
extends PublishingProviderBase
implements IPublishingProvider

PublishingProviderMediaReader: Publishing provider for media reader based stream (vod).

Fields inherited from class com.wowza.wms.stream.publish.PublishingProviderBase
sendOnMetadata

Constructor Summary

public	**PublishingProviderMediaReader**(Publisher publisher, long timeoffset, String streamName) Constructor

Method Summary

void	close()
long	getDuration() Get the target playback duration (milliseconds)
boolean	play(Publisher publisher)
boolean	seek(long timecode)
boolean	seek(long timecode, int seekType)
void	setDuration(long duration)
void	setRealTimeStartTime(long realTimeStartTime)

Methods inherited from class com.wowza.wms.stream.publish.PublishingProviderBase
isSendOnMetadata, setSendOnMetadata

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface com.wowza.wms.stream.publish.IPublishingProvider

close, isSendOnMetadata, play, seek, seek, setDuration, setRealTimeStartTime,
setSendOnMetadata

Constructors

PublishingProviderMediaReader

```
public PublishingProviderMediaReader(Publisher publisher,
                                     long timeoffset,
                                     String streamName)
```

Constructor

Parameters:
publisher - publisher
timeoffset - timeoffset (milliseconds)
streamName - stream name

Methods

seek

```
public boolean seek(long timecode)
```

seek

```
public boolean seek(long timecode,
        int seekType)
```

play

```
public boolean play(Publisher publisher)
```

close

```
public void close()
```

getDuration

```
public long getDuration()
```

Get the target playback duration (milliseconds)

Returns:
>   playback duration (milliseconds)

setDuration

`public void `**`setDuration`**`(long duration)`

setRealTimeStartTime

`public void `**`setRealTimeStartTime`**`(long realTimeStartTime)`

com.wowza.wms.stream.publish
Class Stream

```
java.lang.Object
    │
    +-com.wowza.wms.stream.publish.Stream
```

All Implemented Interfaces:
> Runnable

public class **Stream**
extends Object
implements Runnable

Constructor Summary

public	**Stream**()

Method Summary

void	**addListener**(IStreamActionNotify listener) Add a listener
boolean	**addToPlaylist**(int index, String name, int start, int length) Inserts a media source item to this playlist at a particular index, without interruption.
boolean	**addToPlaylist**(String existing, String name, int start, int length) Insert item into playlist just after the first item in the playlist with a given name.
void	**close**() Call this method when you have finished with the playlist object.
void	**closeAndWait**() Call this method when you have finished with the playlist object.
static Stream	**createInstance**(IApplicationInstance appInstance, String sName) Use this to create a named Stream on an application instance.
static Stream	**createInstance**(IVHost vhost, String applicationName, String sName) Use this to create a named Stream on the default instance (_definst_) of an application on a particular VHost.
static Stream	**createInstance**(IVHost vhost, String applicationName, String appInstanceName, String sName) Use this to create a named Stream on the non-default instance of an application on a particular VHost.
PlaylistItem	**getCurrentItem**() Get the currently playing playlist item
Object	**getLock**() Get the synchronization lock for this interface.

String	**getName**()	
		Returns the name of the playlist stream - the client would play this stream by this name.
java.util.List	**getPlaylist**()	
		Get the current playlist
int	**getPollingInterval**()	
		Get the polling interval (milliseconds)
Publisher	**getPublisher**()	
boolean	**getRepeat**()	
		Use this to determine if the playlist is auto-repeating
long	**getStartLiveOnPreviousBufferTime**()	
		Get time in milliseconds to go back in live stream buffer to get previous key frame
int	**getTimeOffsetBetweenItems**()	
		Get time in milliseconds to add to stream time between playlist items (default is zero)
boolean	**isMoveToNextIfLiveStreamMissing**()	
		If true, will move to next playlist item if live stream is missing or is unpublished.
boolean	**isSendOnMetadata**()	
		True if sending onMetadata events
boolean	**isStartLiveOnPreviousKeyFrame**()	
		Set to true to start live streams on most recent key frame (smoother switching)
boolean	**isSwitchLog**()	
		Log when a playlist switch occurs
boolean	**isTimesInMilliseconds**()	
		If true start time and duration and are milliseconds.
void	**next**()	
void	**next**(int n)	
void	**play**(int n)	
boolean	**play**(String sPlaylist)	
		Add a media item to the playlist as defined by an XML file ..
boolean	**play**(String name, int start, int length, boolean reset)	
		Adds a media source item to this playlist -
void	**previous**()	
void	**previous**(int n)	
boolean	**removeFromPlaylist**(int index)	
		Remove item from playlist based on index.
boolean	**removeFromPlaylist**(String name)	
		Remove all items matching the given stream name from the playlist.

void	removeListener([IStreamActionNotify](#) listener) Remove a listener	
void	run() Overridden from class Runnable	
void	setMoveToNextIfLiveStreamMissing(boolean moveToNextIfLiveStreamMissing) If true, will move to next playlist item if live stream is missing or is unpublished.	
void	setPollingInterval(int pollingInterval) Set the polling interval (milliseconds)	
void	setRepeat(boolean repeat) Use this to make the playlist repeat or not...	
void	setSendOnMetadata(boolean sendOnMetadata) True if sending onMetadata events	
void	setStartLiveOnPreviousBufferTime(long startLiveOnPreviousBufferTime) Set time in milliseconds to go back in live stream buffer to get previous key frame	
void	setStartLiveOnPreviousKeyFrame(boolean startLiveOnPreviousKeyFrame) Set to true to start live streams on most recent key frame (smoother switching)	
void	setSwitchLog(boolean switchLog) Log when a playlist switch occurs	
void	setTimeOffsetBetweenItems(int timeOffsetBetweenItems) Set time in milliseconds to add to stream time between playlist items (default is zero)	
void	setTimesInMilliseconds(boolean timesInMilliseconds) If true start time and duration and are milliseconds.	

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Methods inherited from interface `java.lang.Runnable`

```
run
```

Constructors

Stream

public **Stream**()

Methods

createInstance

```
public static Stream createInstance(IVHost vhost,
        String applicationName,
        String sName)
```

Use this to create a named Stream on the default instance (_definst_) of an application on a particular VHost.

Parameters:
vhost - - Virtual Host
applicationName - - Application name
sName - - Name of Stream

Returns:
stream interface

createInstance

```
public static Stream createInstance(IVHost vhost,
        String applicationName,
        String appInstanceName,
        String sName)
```

Use this to create a named Stream on the non-default instance of an application on a particular VHost.

Parameters:
vhost - - Virtual Host
applicationName - - Application name
appInstanceName - - Instance name
sName - - Name of Stream

Returns:
stream interface

getLock

```
public Object getLock()
```

Get the synchronization lock for this interface.

Returns:
synchronization lock for this interface

createInstance

```
public static Stream createInstance(IApplicationInstance appInstance,
        String sName)
```

Use this to create a named Stream on an application instance.

Parameters:
appInstance - - Application instance
sName - - Name of Stream

Returns:
stream interface

run

```
public void run()
```

> Overridden from class Runnable .... do NOT call this directly. This method handles switching between media sources in the playlist.

getPlaylist

```
public java.util.List getPlaylist()
```

> Get the current playlist

> ### Returns:
> > current playlist

getCurrentItem

```
public PlaylistItem getCurrentItem()
```

> Get the currently playing playlist item

> ### Returns:
> > currently playing playlist item

play

```
public boolean play(String name,
        int start,
        int length,
        boolean reset)
```

> Adds a media source item to this playlist -

> ### Parameters:
> > name - - name of media item
> > start - - where to start playing the item. (-2 implies play a live stream)
> > length - - how much of the item to play (-1 implies play the entire file or live stream)
> > reset - - if true, will begin a new playlist, otherwise items are appended

> ### Returns:
> > - returns true if item was added successfully ...otherwise false.

addToPlaylist

```
public boolean addToPlaylist(int index,
        String name,
        int start,
        int length)
```

> Inserts a media source item to this playlist at a particular index, without interruption.

> ### Parameters:
> > index - - insertion index
> > name - - name of media item being inserted
> > start - - where to start playing the item. (-2 implies play a live stream)
> > length - - how much of the item to play (-1 implies play the entire file or live stream)

> ### Returns:

- returns true if item was inserted successfully ...otherwise false. this should not interrupt anything that might be currently playing.... will do nothing if existing item does not exist.. if existing == "" insert at head of list

---

addToPlaylist

```
public boolean addToPlaylist(String existing,
        String name,
        int start,
        int length)
```

Insert item into playlist just after the first item in the playlist with a given name.

Parameters:
existing - name of playlist item in which to insert the item after
name - name of new item
start - where to start playing the item. (-2 implies play a live stream)
length - how much of the item to play (-1 implies play the entire file or live stream)

Returns:
true if item inserted

---

removeFromPlaylist

```
public boolean removeFromPlaylist(int index)
```

Remove item from playlist based on index.

Parameters:
index - item index

Returns:
true if at least one item from removed

---

removeFromPlaylist

```
public boolean removeFromPlaylist(String name)
```

Remove all items matching the given stream name from the playlist. If the item is currently being played, it is not removed.

Parameters:
name - stream name

Returns:
true if at least one item from removed

---

play

```
public boolean play(String sPlaylist)
```

Add a media item to the playlist as defined by an XML file ..

Parameters:
sPlaylist - - the playlist XML definition file

Returns:
- returns true if item was added successfully ...otherwise false.

---

close

`public void close()`

> Call this method when you have finished with the playlist object. It will terminate the playlist thread. The playlist object cannot be used after this call.

closeAndWait

`public void closeAndWait()`

> Call this method when you have finished with the playlist object. It will terminate the playlist thread. The playlist object cannot be used after this call. This method will wait for the thread to exit.

getName

`public String getName()`

> Returns the name of the playlist stream - the client would play this stream by this name.

> ### Returns:
> - the name of the playlist stream

getRepeat

`public boolean getRepeat()`

> Use this to determine if the playlist is auto-repeating

> ### Returns:
> - true if repeating otherwise false.

setRepeat

`public void setRepeat(boolean repeat)`

> Use this to make the playlist repeat or not...

> ### Parameters:
> repeat - - true to repeat otherwise false

play

`public void play(int n)`

next

`public void next(int n)`

next

`public void next()`

previous

`public void` **`previous`**`()`

previous

`public void` **`previous`**`(int n)`

getPollingInterval

`public int` **`getPollingInterval`**`()`

Get the polling interval (milliseconds)

Returns:
polling interval (milliseconds)

setPollingInterval

`public void` **`setPollingInterval`**`(int pollingInterval)`

Set the polling interval (milliseconds)

Parameters:
`pollingInterval` - polling interval (milliseconds)

getPublisher

`public` [`Publisher`](#) **`getPublisher`**`()`

addListener

`public void` **`addListener`**`(`[`IStreamActionNotify`](#) `listener)`

Add a listener

Parameters:
`listener` - listener

removeListener

`public void` **`removeListener`**`(`[`IStreamActionNotify`](#) `listener)`

Remove a listener

Parameters:
`listener` - listener

isSwitchLog

`public boolean` **`isSwitchLog`**`()`

Log when a playlist switch occurs

> **Returns:**
> log when a playlist switch occurs

setSwitchLog

`public void setSwitchLog(boolean switchLog)`

Log when a playlist switch occurs

> **Parameters:**
> `switchLog` - log when a playlist switch occurs

isSendOnMetadata

`public boolean isSendOnMetadata()`

True if sending onMetadata events

> **Returns:**
> True if sending onMetadata events

setSendOnMetadata

`public void setSendOnMetadata(boolean sendOnMetadata)`

True if sending onMetadata events

> **Parameters:**
> `sendOnMetadata` - True if sending onMetadata events

isTimesInMilliseconds

`public boolean isTimesInMilliseconds()`

If true start time and duration and are milliseconds. If false startTime and duration are in seconds.

> **Returns:**
> true start time and duration and are milliseconds

setTimesInMilliseconds

`public void setTimesInMilliseconds(boolean timesInMilliseconds)`

If true start time and duration and are milliseconds. If false startTime and duration are in seconds.

> **Parameters:**
> `timesInMilliseconds` - true start time and duration and are milliseconds

isStartLiveOnPreviousKeyFrame

`public boolean isStartLiveOnPreviousKeyFrame()`

Set to true to start live streams on most recent key frame (smoother switching)

> **Returns:**
> true to start live streams on most recent key frame

setStartLiveOnPreviousKeyFrame

`public void **setStartLiveOnPreviousKeyFrame**(boolean startLiveOnPreviousKeyFrame)`

Set to true to start live streams on most recent key frame (smoother switching)

Parameters:

`startLiveOnPreviousKeyFrame` - true to start live streams on most recent key frame

getStartLiveOnPreviousBufferTime

`public long **getStartLiveOnPreviousBufferTime**()`

Get time in milliseconds to go back in live stream buffer to get previous key frame

Returns:

time in milliseconds to go back in live stream buffer to get previous key frame

setStartLiveOnPreviousBufferTime

`public void **setStartLiveOnPreviousBufferTime**(long startLiveOnPreviousBufferTime)`

Set time in milliseconds to go back in live stream buffer to get previous key frame

Parameters:

`startLiveOnPreviousBufferTime` - time in milliseconds to go back in live stream buffer to get previous key frame

getTimeOffsetBetweenItems

`public int **getTimeOffsetBetweenItems**()`

Get time in milliseconds to add to stream time between playlist items (default is zero)

Returns:

time in milliseconds to add to stream time between playlist items

setTimeOffsetBetweenItems

`public void **setTimeOffsetBetweenItems**(int timeOffsetBetweenItems)`

Set time in milliseconds to add to stream time between playlist items (default is zero)

Parameters:

`timeOffsetBetweenItems` - time in milliseconds to add to stream time between playlist items

isMoveToNextIfLiveStreamMissing

`public boolean **isMoveToNextIfLiveStreamMissing**()`

If true, will move to next playlist item if live stream is missing or is unpublished.

Returns:

move to next playlist item if live stream is missing or is unpublished

setMoveToNextIfLiveStreamMissing

`public void **setMoveToNextIfLiveStreamMissing**(boolean moveToNextIfLiveStreamMissing)`

(continued from last page)

If true, will move to next playlist item if live stream is missing or is unpublished.

Parameters:

    `moveToNextIfLiveStreamMissing` - move to next playlist item if live stream is missing or is unpublished

Package

com.wowza.wms.timedtext.cea608

com.wowza.wms.timedtext.cea608
Class ClosedCaptionCEA608Utils

```
java.lang.Object
    |
    +-com.wowza.wms.timedtext.cea608.ClosedCaptionCEA608Utils
```

public class **ClosedCaptionCEA608Utils**
extends Object

Field Summary

public static final	CEA608_EXTENDED_FR_SP_MAP
public static final	CEA608_EXTENDED_NA_MAP
public static final	CEA608_EXTENDED_PORT_GERMAN_DANISH_MAP
public static	CEA608_MUSICAL_NOTE
public static	CEA608_SOLID_BLOCK
public static final	CHANNEL1 Value: **0**
public static final	CHANNEL2 Value: **1**
public static final	COL_0 Value: **0**
public static final	COL_12 Value: **6**
public static final	COL_16 Value: **8**
public static final	COL_20 Value: **10**
public static final	COL_24 Value: **12**
public static final	COL_28 Value: **14**

public static final	COL_4	
	Value: **2**	
public static final	COL_5	
	Value: **4**	
public static final	COL0_BLUE	
	Value: **4**	
public static final	COL0_CYAN	
	Value: **6**	
public static final	COL0_GREEN	
	Value: **2**	
public static final	COL0_HIBYTE	
	Move to set color (high-byte) [channel][row]	
public static final	COL0_LOWBYTE	
	Move to set color (low-byte) [color][row]	
public static final	COL0_MAGENTA	
	Value: **12**	
public static final	COL0_RED	
	Value: **8**	
public static final	COL0_WHITE	
	Value: **0**	
public static final	COL0_YELLOW	
	Value: **10**	
public static final	COLN_LOWBYTE	
public static final	CONTROLCODES_AOF	
	AOF Reserved (formerly Alarm Off) [channel]	
public static final	CONTROLCODES_AON	
	AON Reserved (formerly Alarm On) [channel]	
public static final	CONTROLCODES_BAO	
	BAO Background Black, Opaque [channel]	
public static final	CONTROLCODES_BAS	
	BAS Background Black, Semi-transparent [channel]	
public static final	CONTROLCODES_BBO	
	BBO Background Blue, Opaque [channel]	
public static final	CONTROLCODES_BBS	
	BBS Background Blue, Semi-transparent [channel]	

public static final	CONTROLCODES_BCO BCO Background Cyan, Opaque [channel]
public static final	CONTROLCODES_BCS BCS Background Cyan, Semi-transparent [channel]
public static final	CONTROLCODES_BGO BGO Background Green, Opaque [channel]
public static final	CONTROLCODES_BGS BGS Background Green, Semi-transparent [channel]
public static final	CONTROLCODES_BMO BMO Background Magenta, Opaque [channel]
public static final	CONTROLCODES_BMS BMS Background Magenta, Semi-transparent [channel]
public static final	CONTROLCODES_BRO BRO Background Red, Opaque [channel]
public static final	CONTROLCODES_BRS BRS Background Red, Semi-transparent [channel]
public static final	CONTROLCODES_BS BS Backspace [channel]
public static final	CONTROLCODES_BT BT Background Transparent [channel]
public static final	CONTROLCODES_BWO BWO Background White, Opaque [channel]
public static final	CONTROLCODES_BWS BWS Background White, Semi-transparent [channel]
public static final	CONTROLCODES_BYO BYO Background Yellow, Opaque [channel]
public static final	CONTROLCODES_BYS BYS Background Yellow, Semi-transparent [channel]
public static final	CONTROLCODES_CR CR Carriage Return [channel]
public static final	CONTROLCODES_DER DER Delete to End of Row [channel]
public static final	CONTROLCODES_EDM EDM Erase Displayed Memory [channel]
public static final	CONTROLCODES_ENM ENM Erase Non-Displayed Memory [channel]
public static final	CONTROLCODES_EOC EOC End of Caption (Flip Memories) [channel]
public static final	CONTROLCODES_FA FA Foreground Black [channel]

public static final	**CONTROLCODES_FAU** FAU Foreground Black Underline [channel]
public static final	**CONTROLCODES_FON** FON Flash On [channel]
public static final	**CONTROLCODES_RCL** RCL Resume caption loading [channel]
public static final	**CONTROLCODES_RDC** RDC Resume Direct Captioning [channel]
public static final	**CONTROLCODES_RTD** RTD Resume Text Display [channel]
public static final	**CONTROLCODES_RU2** RU2 Roll-Up Captions-2 Rows [channel]
public static final	**CONTROLCODES_RU3** RU3 Roll-Up Captions-3 Rows [channel]
public static final	**CONTROLCODES_RU4** RU4 Roll-Up Captions-4 Rows [channel]
public static final	**CONTROLCODES_TO1** TO1 Tab Offset 1 Column [channel]
public static final	**CONTROLCODES_TO2** TO2 Tab Offset 2 Columns [channel]
public static final	**CONTROLCODES_TO3** TO3 Tab Offset 3 Columns [channel]
public static final	**CONTROLCODES_TR** TR Text Restart [channel]
public static final	**COUNT_COLS** Total number of columns per frame Value: **31**
public static final	**COUNT_ROWS** Total number of rows of characters per frame Value: **15**
public static final	**DONOTHING_BYTE** Value: **-128**
public static final	**DONOTHING_SHORT** Value: **-32640**
public static final	**FIELD1** Value: **0**
public static final	**FIELD2** Value: **1**

public static final	FORMAT_COLOR	
public static final	FORMAT_FLASH Value: **-27480**	
public static final	FORMAT_ITALICS Value: **-28242**	
public static final	FORMAT_ITALICS_UNDERLINE Value: **-28369**	
public static final	LANG_ASCII Select the standard line 21 character set in normal size.	
public static final	LANG_ASCII_DBL Select the standard line 21 character set in double size.	
public static final	LANG_GB231280 Select the People's Republic of China character set: GB 2312-80.	
public static final	LANG_KSC56011987 Select the Korean Standard character set: KSC 5601-1987.	
public static final	LANG_PRIV1 Select the first private character set.	
public static final	LANG_PRIV2 Select the second private character set.	
public static final	LANG_REG1 Select the first registered character set.	
public static final	MAX_CCCOUNT Maximum number of closed caption codes per SEI packet Value: **31**	
public static final	ODDPARITY Odd parity calculator	
public static final	SEI_PAYLOADTYPE Value: **4**	
public static final	SEI_STARTCODE SEI start code	
public static final	SEI_USERDATATYPECODE Value: **3**	
public static final	UTF8_BRITISH_POUND Value: **163**	
public static final	UTF8_BULLET Value: **8226**	

public static final	UTF8_CENTS	
	Value: **162**	
public static final	UTF8_CLOSING_DOUBLE_QUOTE	
	Value: **8221**	
public static final	UTF8_CLOSING_GUILLEMETS	
	Value: **187**	
public static final	UTF8_CONNECTING_VERTICAL_BAR	
	Value: **9474**	
public static final	UTF8_COPYRIGHT	
	Value: **169**	
public static final	UTF8_CURRENCY	
	Value: **164**	
public static final	UTF8_DASH	
	Value: **45**	
public static final	UTF8_DEGREE	
	Value: **176**	
public static final	UTF8_DOUBLEQUOTE	
	Value: **34**	
public static final	UTF8_EM_DASH	
	Value: **8212**	
public static final	UTF8_EXCLAMATION	
	Value: **33**	
public static final	UTF8_GREATERTHAN	
	Value: **62**	
public static final	UTF8_INVERTED_EXCLAMATION	
	Value: **161**	
public static final	UTF8_LEFT_SINGLE_QUOTATION	
	Value: **8216**	
public static final	UTF8_LEFTPAREN	
	Value: **40**	
public static final	UTF8_LESSTHAN	
	Value: **60**	

public static final	UTF8_LOWER_A Value: **97**
public static final	UTF8_LOWER_A_WITH_CIRCUMFLEX Value: **226**
public static final	UTF8_LOWER_A_WITH_DIAERESIS Value: **228**
public static final	UTF8_LOWER_A_WITH_GRAVE Value: **224**
public static final	UTF8_LOWER_A_WITH_RING Value: **229**
public static final	UTF8_LOWER_A_WITH_TILDE Value: **227**
public static final	UTF8_LOWER_B Value: **98**
public static final	UTF8_LOWER_C Value: **99**
public static final	UTF8_LOWER_D Value: **100**
public static final	UTF8_LOWER_E Value: **101**
public static final	UTF8_LOWER_E_WITH_CIRCUMFLEX Value: **234**
public static final	UTF8_LOWER_E_WITH_DIAERESIS Value: **235**
public static final	UTF8_LOWER_E_WITH_GRAVE Value: **232**
public static final	UTF8_LOWER_F Value: **102**
public static final	UTF8_LOWER_G Value: **103**
public static final	UTF8_LOWER_H Value: **104**

public static final	UTF8_LOWER_I	
	Value: **105**	
public static final	UTF8_LOWER_I_WITH_CIRCUMFLEX	
	Value: **238**	
public static final	UTF8_LOWER_I_WITH_DIAERESIS	
	Value: **239**	
public static final	UTF8_LOWER_I_WITH_GRAVE	
	Value: **236**	
public static final	UTF8_LOWER_J	
	Value: **106**	
public static final	UTF8_LOWER_K	
	Value: **107**	
public static final	UTF8_LOWER_L	
	Value: **108**	
public static final	UTF8_LOWER_M	
	Value: **109**	
public static final	UTF8_LOWER_N	
	Value: **110**	
public static final	UTF8_LOWER_O	
	Value: **111**	
public static final	UTF8_LOWER_O_WITH_CIRCUMFLEX	
	Value: **244**	
public static final	UTF8_LOWER_O_WITH_DIAERESIS	
	Value: **246**	
public static final	UTF8_LOWER_O_WITH_GRAVE	
	Value: **242**	
public static final	UTF8_LOWER_O_WITH_STROKE	
	Value: **248**	
public static final	UTF8_LOWER_O_WITH_TILDE	
	Value: **245**	
public static final	UTF8_LOWER_P	
	Value: **112**	

public static final	UTF8_LOWER_Q
	Value: **113**
public static final	UTF8_LOWER_R
	Value: **114**
public static final	UTF8_LOWER_S
	Value: **115**
public static final	UTF8_LOWER_T
	Value: **116**
public static final	UTF8_LOWER_U
	Value: **117**
public static final	UTF8_LOWER_U_WITH_CIRCUMFLEX
	Value: **251**
public static final	UTF8_LOWER_U_WITH_DIAERESIS
	Value: **252**
public static final	UTF8_LOWER_U_WITH_GRAVE
	Value: **249**
public static final	UTF8_LOWER_V
	Value: **118**
public static final	UTF8_LOWER_W
	Value: **119**
public static final	UTF8_LOWER_X
	Value: **120**
public static final	UTF8_LOWER_Y
	Value: **121**
public static final	UTF8_LOWER_Z
	Value: **122**
public static final	UTF8_MINUSHYPHEN
	Value: **45**
public static final	UTF8_MUSICAL_NOTE
	Value: **9834**
public static final	UTF8_NBSP
	Value: **160**

public static final	UTF8_NOTMATCH	
public static final	UTF8_ONE_HALF Value: **189**	
public static final	UTF8_OPENING_DOUBLE_QUOTE Value: **8220**	
public static final	UTF8_OPENING_GUILLEMETS Value: **171**	
public static final	UTF8_PERIOD Value: **46**	
public static final	UTF8_PIPE Value: **124**	
public static final	UTF8_QUESTION Value: **63**	
public static final	UTF8_REGISTERED_MARK Value: **174**	
public static final	UTF8_REVERSE_QUERY Value: **191**	
public static final	UTF8_RIGHTPAREN Value: **41**	
public static final	UTF8_SERVICE_MARK Value: **8480**	
public static final	UTF8_SINGLEQUOTE Value: **39**	
public static final	UTF8_SPACE Value: **32**	
public static final	UTF8_TRADEMARK Value: **8482**	
public static final	UTF8_UNDERSCORE Value: **84**	
public static final	UTF8_UPPER_A Value: **65**	

public static final	UTF8_UPPER_A_WITH_ACUTE Value: **193**	
public static final	UTF8_UPPER_A_WITH_CURCUMFLEX Value: **194**	
public static final	UTF8_UPPER_A_WITH_DIAERESIS Value: **196**	
public static final	UTF8_UPPER_A_WITH_GRAVE Value: **192**	
public static final	UTF8_UPPER_A_WITH_RING Value: **197**	
public static final	UTF8_UPPER_A_WITH_TILDE Value: **195**	
public static final	UTF8_UPPER_B Value: **66**	
public static final	UTF8_UPPER_C Value: **67**	
public static final	UTF8_UPPER_C_WITH_CEDILLA Value: **199**	
public static final	UTF8_UPPER_D Value: **68**	
public static final	UTF8_UPPER_E Value: **69**	
public static final	UTF8_UPPER_E_WITH_ACUTE Value: **201**	
public static final	UTF8_UPPER_E_WITH_CIRCUMFLEX Value: **202**	
public static final	UTF8_UPPER_E_WITH_DIAERESIS Value: **203**	
public static final	UTF8_UPPER_E_WITH_GRAVE Value: **200**	
public static final	UTF8_UPPER_F Value: **70**	

public static final	UTF8_UPPER_G	
	Value: **71**	
public static final	UTF8_UPPER_H	
	Value: **72**	
public static final	UTF8_UPPER_I	
	Value: **73**	
public static final	UTF8_UPPER_I_WITH_CIRCUMFLEX	
	Value: **206**	
public static final	UTF8_UPPER_I_WITH_DIAERESIS	
	Value: **207**	
public static final	UTF8_UPPER_I_WITH_GRAVE	
	Value: **204**	
public static final	UTF8_UPPER_I_WITH_TILDE	
	Value: **205**	
public static final	UTF8_UPPER_J	
	Value: **74**	
public static final	UTF8_UPPER_K	
	Value: **75**	
public static final	UTF8_UPPER_L	
	Value: **76**	
public static final	UTF8_UPPER_M	
	Value: **77**	
public static final	UTF8_UPPER_N	
	Value: **78**	
public static final	UTF8_UPPER_O	
	Value: **79**	
public static final	UTF8_UPPER_O_WITH_ACUTE	
	Value: **211**	
public static final	UTF8_UPPER_O_WITH_CIRCUMFLEX	
	Value: **212**	
public static final	UTF8_UPPER_O_WITH_DIAERESIS	
	Value: **214**	

public static final	UTF8_UPPER_O_WITH_GRAVE Value: **210**
public static final	UTF8_UPPER_O_WITH_STROKE Value: **216**
public static final	UTF8_UPPER_O_WITH_TILDE Value: **213**
public static final	UTF8_UPPER_P Value: **80**
public static final	UTF8_UPPER_Q Value: **81**
public static final	UTF8_UPPER_R Value: **82**
public static final	UTF8_UPPER_S Value: **83**
public static final	UTF8_UPPER_T Value: **84**
public static final	UTF8_UPPER_U Value: **85**
public static final	UTF8_UPPER_U_WITH_ACUTE Value: **218**
public static final	UTF8_UPPER_U_WITH_CIRCUMFLEX Value: **219**
public static final	UTF8_UPPER_U_WITH_DIAERESIS Value: **220**
public static final	UTF8_UPPER_U_WITH_GRAVE Value: **217**
public static final	UTF8_UPPER_V Value: **86**
public static final	UTF8_UPPER_W Value: **87**
public static final	UTF8_UPPER_X Value: **88**

public static final	UTF8_UPPER_Y	
	Value: **89**	
public static final	UTF8_UPPER_Z	
	Value: **90**	
public static final	UTF8_YEN	
	Value: **165**	
public static final	UTF8MAP	
public static final	UTF8MAP_INDEX_OFFSET	
	Value: **32**	

Constructor Summary

public	ClosedCaptionCEA608Utils()

Method Summary

static byte	calcParity(byte inByte)
static short	calcParity(short inShort)
static char	cea608CharToCharUTF8(short b)
static Character	cea608ExtendedCharacterToUTF8(short command)
static byte[]	charUTF8ToCAE608(String text, int pos, String charaterSet, int channel)
static boolean	checkParity(byte inByte)
static boolean	checkParity(short inShort)

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Fields

SEI_PAYLOADTYPE

public static final byte **SEI_PAYLOADTYPE**

Constant value: **4**

SEI_USERDATATYPECODE

`public static final byte` **`SEI_USERDATATYPECODE`**

Constant value: **3**

UTF8_BULLET

`public static final char` **`UTF8_BULLET`**

Constant value: **8226**

UTF8_CLOSING_DOUBLE_QUOTE

`public static final char` **`UTF8_CLOSING_DOUBLE_QUOTE`**

Constant value: **8221**

UTF8_CLOSING_GUILLEMETS

`public static final char` **`UTF8_CLOSING_GUILLEMETS`**

Constant value: **187**

UTF8_CONNECTING_VERTICAL_BAR

`public static final char` **`UTF8_CONNECTING_VERTICAL_BAR`**

Constant value: **9474**

UTF8_COPYRIGHT

`public static final char` **`UTF8_COPYRIGHT`**

Constant value: **169**

UTF8_CURRENCY

`public static final char` **`UTF8_CURRENCY`**

Constant value: **164**

UTF8_DEGREE

`public static final char` **`UTF8_DEGREE`**

Constant value: **176**

UTF8_EM_DASH

`public static final char` **`UTF8_EM_DASH`**

Constant value: **8212**

UTF8_INVERTED_EXCLAMATION

`public static final char` **`UTF8_INVERTED_EXCLAMATION`**

Constant value: **161**

UTF8_LEFT_SINGLE_QUOTATION

`public static final char` **`UTF8_LEFT_SINGLE_QUOTATION`**

Constant value: **8216**

UTF8_OPENING_DOUBLE_QUOTE

`public static final char` **`UTF8_OPENING_DOUBLE_QUOTE`**

Constant value: **8220**

UTF8_OPENING_GUILLEMETS

`public static final char` **`UTF8_OPENING_GUILLEMETS`**

Constant value: **171**

UTF8_REGISTERED_MARK

`public static final char` **`UTF8_REGISTERED_MARK`**

Constant value: **174**

UTF8_SERVICE_MARK

`public static final char` **`UTF8_SERVICE_MARK`**

Constant value: **8480**

UTF8_YEN

`public static final char` **`UTF8_YEN`**

Constant value: **165**

UTF8_LOWER_A_WITH_DIAERESIS

`public static final char` **`UTF8_LOWER_A_WITH_DIAERESIS`**

Constant value: **228**

UTF8_LOWER_A_WITH_RING

`public static final char` **`UTF8_LOWER_A_WITH_RING`**

Constant value: **229**

UTF8_LOWER_A_WITH_TILDE

`public static final char` **`UTF8_LOWER_A_WITH_TILDE`**

Constant value: **227**

UTF8_LOWER_E_WITH_DIAERESIS

`public static final char` **`UTF8_LOWER_E_WITH_DIAERESIS`**

Constant value: **235**

UTF8_LOWER_I_WITH_DIAERESIS

`public static final char` **`UTF8_LOWER_I_WITH_DIAERESIS`**

Constant value: **239**

UTF8_LOWER_I_WITH_GRAVE

`public static final char` **`UTF8_LOWER_I_WITH_GRAVE`**

Constant value: **236**

UTF8_LOWER_O_WITH_DIAERESIS

`public static final char` **`UTF8_LOWER_O_WITH_DIAERESIS`**

Constant value: **246**

UTF8_LOWER_O_WITH_GRAVE

`public static final char` **`UTF8_LOWER_O_WITH_GRAVE`**

Constant value: **242**

UTF8_LOWER_O_WITH_STROKE

`public static final char` **`UTF8_LOWER_O_WITH_STROKE`**

Constant value: **248**

(continued from last page)

UTF8_LOWER_O_WITH_TILDE

`public static final char` **`UTF8_LOWER_O_WITH_TILDE`**

Constant value: **245**

UTF8_LOWER_U_WITH_DIAERESIS

`public static final char` **`UTF8_LOWER_U_WITH_DIAERESIS`**

Constant value: **252**

UTF8_LOWER_U_WITH_GRAVE

`public static final char` **`UTF8_LOWER_U_WITH_GRAVE`**

Constant value: **249**

UTF8_UPPER_A_WITH_ACUTE

`public static final char` **`UTF8_UPPER_A_WITH_ACUTE`**

Constant value: **193**

UTF8_UPPER_A_WITH_CURCUMFLEX

`public static final char` **`UTF8_UPPER_A_WITH_CURCUMFLEX`**

Constant value: **194**

UTF8_UPPER_A_WITH_DIAERESIS

`public static final char` **`UTF8_UPPER_A_WITH_DIAERESIS`**

Constant value: **196**

UTF8_UPPER_A_WITH_GRAVE

`public static final char` **`UTF8_UPPER_A_WITH_GRAVE`**

Constant value: **192**

UTF8_UPPER_A_WITH_RING

`public static final char` **`UTF8_UPPER_A_WITH_RING`**

Constant value: **197**

UTF8_UPPER_A_WITH_TILDE

`public static final char` **`UTF8_UPPER_A_WITH_TILDE`**

Constant value: **195**

UTF8_UPPER_C_WITH_CEDILLA

`public static final char` **`UTF8_UPPER_C_WITH_CEDILLA`**

Constant value: **199**

UTF8_UPPER_E_WITH_ACUTE

`public static final char` **`UTF8_UPPER_E_WITH_ACUTE`**

Constant value: **201**

UTF8_UPPER_E_WITH_CIRCUMFLEX

`public static final char` **`UTF8_UPPER_E_WITH_CIRCUMFLEX`**

Constant value: **202**

UTF8_UPPER_E_WITH_DIAERESIS

`public static final char` **`UTF8_UPPER_E_WITH_DIAERESIS`**

Constant value: **203**

UTF8_UPPER_E_WITH_GRAVE

`public static final char` **`UTF8_UPPER_E_WITH_GRAVE`**

Constant value: **200**

UTF8_UPPER_I_WITH_CIRCUMFLEX

`public static final char` **`UTF8_UPPER_I_WITH_CIRCUMFLEX`**

Constant value: **206**

UTF8_UPPER_I_WITH_DIAERESIS

`public static final char` **`UTF8_UPPER_I_WITH_DIAERESIS`**

Constant value: **207**

UTF8_UPPER_I_WITH_GRAVE

`public static final char` **`UTF8_UPPER_I_WITH_GRAVE`**

Constant value: **204**

UTF8_UPPER_I_WITH_TILDE

`public static final char` **`UTF8_UPPER_I_WITH_TILDE`**

Constant value: **205**

UTF8_UPPER_O_WITH_ACUTE

`public static final char` **`UTF8_UPPER_O_WITH_ACUTE`**

Constant value: **211**

UTF8_UPPER_O_WITH_CIRCUMFLEX

`public static final char` **`UTF8_UPPER_O_WITH_CIRCUMFLEX`**

Constant value: **212**

UTF8_UPPER_O_WITH_DIAERESIS

`public static final char` **`UTF8_UPPER_O_WITH_DIAERESIS`**

Constant value: **214**

UTF8_UPPER_O_WITH_GRAVE

`public static final char` **`UTF8_UPPER_O_WITH_GRAVE`**

Constant value: **210**

UTF8_UPPER_O_WITH_STROKE

`public static final char` **`UTF8_UPPER_O_WITH_STROKE`**

Constant value: **216**

UTF8_UPPER_O_WITH_TILDE

`public static final char` **`UTF8_UPPER_O_WITH_TILDE`**

Constant value: **213**

UTF8_UPPER_U_WITH_ACUTE

`public static final char` **`UTF8_UPPER_U_WITH_ACUTE`**

Constant value: **218**

UTF8_UPPER_U_WITH_CIRCUMFLEX

`public static final char` **`UTF8_UPPER_U_WITH_CIRCUMFLEX`**

Constant value: **219**

UTF8_UPPER_U_WITH_DIAERESIS

`public static final char` **`UTF8_UPPER_U_WITH_DIAERESIS`**

Constant value: **220**

UTF8_UPPER_U_WITH_GRAVE

`public static final char` **`UTF8_UPPER_U_WITH_GRAVE`**

Constant value: **217**

MAX_CCCOUNT

`public static final int` **`MAX_CCCOUNT`**

Maximum number of closed caption codes per SEI packet
Constant value: **31**

SEI_STARTCODE

`public static final byte` **`SEI_STARTCODE`**

SEI start code

ODDPARITY

`public static final byte` **`ODDPARITY`**

Odd parity calculator

COL0_WHITE

`public static final int` **`COL0_WHITE`**

Constant value: **0**

COL0_GREEN

`public static final int` **`COL0_GREEN`**

Constant value: **2**

COL0_BLUE

`public static final int` **`COL0_BLUE`**

(continued from last page)

Constant value: **4**

COL0_CYAN

`public static final int` **`COL0_CYAN`**

Constant value: **6**

COL0_RED

`public static final int` **`COL0_RED`**

Constant value: **8**

COL0_YELLOW

`public static final int` **`COL0_YELLOW`**

Constant value: **10**

COL0_MAGENTA

`public static final int` **`COL0_MAGENTA`**

Constant value: **12**

CHANNEL1

`public static final int` **`CHANNEL1`**

Constant value: **0**

CHANNEL2

`public static final int` **`CHANNEL2`**

Constant value: **1**

FIELD1

`public static final int` **`FIELD1`**

Constant value: **0**

FIELD2

`public static final int` **`FIELD2`**

Constant value: **1**

DONOTHING_SHORT

`public static final short` **`DONOTHING_SHORT`**

Constant value: **`-32640`**

DONOTHING_BYTE

`public static final byte` **`DONOTHING_BYTE`**

Constant value: **`-128`**

CONTROLCODES_RCL

`public static final short` **`CONTROLCODES_RCL`**

RCL Resume caption loading [channel]

CONTROLCODES_BS

`public static final short` **`CONTROLCODES_BS`**

BS Backspace [channel]

CONTROLCODES_AOF

`public static final short` **`CONTROLCODES_AOF`**

AOF Reserved (formerly Alarm Off) [channel]

CONTROLCODES_AON

`public static final short` **`CONTROLCODES_AON`**

AON Reserved (formerly Alarm On) [channel]

CONTROLCODES_DER

`public static final short` **`CONTROLCODES_DER`**

DER Delete to End of Row [channel]

CONTROLCODES_RU2

`public static final short` **`CONTROLCODES_RU2`**

RU2 Roll-Up Captions-2 Rows [channel]

CONTROLCODES_RU3

`public static final short` **`CONTROLCODES_RU3`**

RU3 Roll-Up Captions-3 Rows [channel]

CONTROLCODES_RU4

`public static final short` **`CONTROLCODES_RU4`**

RU4 Roll-Up Captions-4 Rows [channel]

CONTROLCODES_FON

`public static final short` **`CONTROLCODES_FON`**

FON Flash On [channel]

CONTROLCODES_RDC

`public static final short` **`CONTROLCODES_RDC`**

RDC Resume Direct Captioning [channel]

CONTROLCODES_TR

`public static final short` **`CONTROLCODES_TR`**

TR Text Restart [channel]

CONTROLCODES_RTD

`public static final short` **`CONTROLCODES_RTD`**

RTD Resume Text Display [channel]

CONTROLCODES_EDM

`public static final short` **`CONTROLCODES_EDM`**

EDM Erase Displayed Memory [channel]

CONTROLCODES_CR

`public static final short` **`CONTROLCODES_CR`**

CR Carriage Return [channel]

CONTROLCODES_ENM

`public static final short` **`CONTROLCODES_ENM`**

ENM Erase Non-Displayed Memory [channel]

CONTROLCODES_EOC

`public static final short` **`CONTROLCODES_EOC`**

EOC End of Caption (Flip Memories) [channel]

CONTROLCODES_TO1

`public static final short` **`CONTROLCODES_TO1`**

TO1 Tab Offset 1 Column [channel]

CONTROLCODES_TO2

`public static final short` **`CONTROLCODES_TO2`**

TO2 Tab Offset 2 Columns [channel]

CONTROLCODES_TO3

`public static final short` **`CONTROLCODES_TO3`**

TO3 Tab Offset 3 Columns [channel]

CONTROLCODES_BWO

`public static final short` **`CONTROLCODES_BWO`**

BWO Background White, Opaque [channel]

CONTROLCODES_BWS

`public static final short` **`CONTROLCODES_BWS`**

BWS Background White, Semi-transparent [channel]

CONTROLCODES_BGO

`public static final short` **`CONTROLCODES_BGO`**

BGO Background Green, Opaque [channel]

CONTROLCODES_BGS

`public static final short` **`CONTROLCODES_BGS`**

BGS Background Green, Semi-transparent [channel]

CONTROLCODES_BBO

`public static final short` **`CONTROLCODES_BBO`**

BBO Background Blue, Opaque [channel]

CONTROLCODES_BBS

`public static final short` **`CONTROLCODES_BBS`**

BBS Background Blue, Semi-transparent [channel]

CONTROLCODES_BCO

`public static final short` **`CONTROLCODES_BCO`**

BCO Background Cyan, Opaque [channel]

CONTROLCODES_BCS

`public static final short` **`CONTROLCODES_BCS`**

BCS Background Cyan, Semi-transparent [channel]

CONTROLCODES_BRO

`public static final short` **`CONTROLCODES_BRO`**

BRO Background Red, Opaque [channel]

CONTROLCODES_BRS

`public static final short` **`CONTROLCODES_BRS`**

BRS Background Red, Semi-transparent [channel]

CONTROLCODES_BYO

`public static final short` **`CONTROLCODES_BYO`**

BYO Background Yellow, Opaque [channel]

CONTROLCODES_BYS

`public static final short` **`CONTROLCODES_BYS`**

BYS Background Yellow, Semi-transparent [channel]

CONTROLCODES_BMO

`public static final short` **`CONTROLCODES_BMO`**

BMO Background Magenta, Opaque [channel]

CONTROLCODES_BMS

`public static final short` **`CONTROLCODES_BMS`**

BMS Background Magenta, Semi-transparent [channel]

CONTROLCODES_BAO

`public static final short` **`CONTROLCODES_BAO`**

BAO Background Black, Opaque [channel]

CONTROLCODES_BAS

`public static final short` **`CONTROLCODES_BAS`**

BAS Background Black, Semi-transparent [channel]

CONTROLCODES_BT

`public static final short` **`CONTROLCODES_BT`**

BT Background Transparent [channel]

CONTROLCODES_FA

public static final short **CONTROLCODES_FA**

FA Foreground Black [channel]

CONTROLCODES_FAU

public static final short **CONTROLCODES_FAU**

FAU Foreground Black Underline [channel]

LANG_ASCII

public static final short **LANG_ASCII**

Select the standard line 21 character set in normal size. [channel]

LANG_ASCII_DBL

public static final short **LANG_ASCII_DBL**

Select the standard line 21 character set in double size. [channel]

LANG_PRIV1

public static final short **LANG_PRIV1**

Select the first private character set. [channel]

LANG_PRIV2

public static final short **LANG_PRIV2**

Select the second private character set. [channel]

LANG_GB231280

public static final short **LANG_GB231280**

Select the People's Republic of China character set: GB 2312-80. [channel]

LANG_KSC56011987

public static final short **LANG_KSC56011987**

Select the Korean Standard character set: KSC 5601-1987. [channel]

LANG_REG1

public static final short **LANG_REG1**

Select the first registered character set. [channel]

COUNT_ROWS

```
public static final int COUNT_ROWS
```

Total number of rows of characters per frame
Constant value: **15**

COUNT_COLS

```
public static final int COUNT_COLS
```

Total number of columns per frame
Constant value: **31**

COL0_HIBYTE

```
public static final short COL0_HIBYTE
```

Move to set color (high-byte) [channel][row]

COL0_LOWBYTE

```
public static final short COL0_LOWBYTE
```

Move to set color (low-byte) [color][row]

COL_0

```
public static final int COL_0
```

Constant value: **0**

COL_4

```
public static final int COL_4
```

Constant value: **2**

COL_5

```
public static final int COL_5
```

Constant value: **4**

COL_12

```
public static final int COL_12
```

Constant value: **6**

COL_16

```
public static final int COL_16
```

Constant value: **8**

COL_20

public static final int **COL_20**

Constant value: **10**

COL_24

public static final int **COL_24**

Constant value: **12**

COL_28

public static final int **COL_28**

Constant value: **14**

COLN_LOWBYTE

public static final short **COLN_LOWBYTE**

FORMAT_COLOR

public static final short **FORMAT_COLOR**

FORMAT_ITALICS

public static final short **FORMAT_ITALICS**

Constant value: **-28242**

FORMAT_ITALICS_UNDERLINE

public static final short **FORMAT_ITALICS_UNDERLINE**

Constant value: **-28369**

FORMAT_FLASH

public static final short **FORMAT_FLASH**

Constant value: **-27480**

UTF8_NOTMATCH

public static final byte **UTF8_NOTMATCH**

UTF8_PERIOD

public static final byte **UTF8_PERIOD**

Constant value: **46**

UTF8_SINGLEQUOTE

public static final byte **UTF8_SINGLEQUOTE**

Constant value: **39**

UTF8_DOUBLEQUOTE

public static final byte **UTF8_DOUBLEQUOTE**

Constant value: **34**

UTF8_DASH

public static final byte **UTF8_DASH**

Constant value: **45**

UTF8_UNDERSCORE

public static final byte **UTF8_UNDERSCORE**

Constant value: **84**

UTF8_LEFTPAREN

public static final byte **UTF8_LEFTPAREN**

Constant value: **40**

UTF8_RIGHTPAREN

public static final byte **UTF8_RIGHTPAREN**

Constant value: **41**

UTF8_SPACE

public static final byte **UTF8_SPACE**

Constant value: **32**

UTF8_EXCLAMATION

`public static final byte` **`UTF8_EXCLAMATION`**

Constant value: **33**

UTF8_QUESTION

`public static final byte` **`UTF8_QUESTION`**

Constant value: **63**

UTF8_LESSTHAN

`public static final byte` **`UTF8_LESSTHAN`**

Constant value: **60**

UTF8_GREATERTHAN

`public static final byte` **`UTF8_GREATERTHAN`**

Constant value: **62**

UTF8_MINUSHYPHEN

`public static final byte` **`UTF8_MINUSHYPHEN`**

Constant value: **45**

UTF8_PIPE

`public static final byte` **`UTF8_PIPE`**

Constant value: **124**

UTF8_LOWER_A

`public static final byte` **`UTF8_LOWER_A`**

Constant value: **97**

UTF8_LOWER_B

`public static final byte` **`UTF8_LOWER_B`**

Constant value: **98**

UTF8_LOWER_C

`public static final byte` **`UTF8_LOWER_C`**

Constant value: **99**

UTF8_LOWER_D

`public static final byte` **`UTF8_LOWER_D`**

Constant value: **100**

UTF8_LOWER_E

`public static final byte` **`UTF8_LOWER_E`**

Constant value: **101**

UTF8_LOWER_F

`public static final byte` **`UTF8_LOWER_F`**

Constant value: **102**

UTF8_LOWER_G

`public static final byte` **`UTF8_LOWER_G`**

Constant value: **103**

UTF8_LOWER_H

`public static final byte` **`UTF8_LOWER_H`**

Constant value: **104**

UTF8_LOWER_I

`public static final byte` **`UTF8_LOWER_I`**

Constant value: **105**

UTF8_LOWER_J

`public static final byte` **`UTF8_LOWER_J`**

Constant value: **106**

UTF8_LOWER_K

`public static final byte` **`UTF8_LOWER_K`**

Constant value: **107**

UTF8_LOWER_L

```
public static final byte UTF8_LOWER_L
```

Constant value: **108**

UTF8_LOWER_M

```
public static final byte UTF8_LOWER_M
```

Constant value: **109**

UTF8_LOWER_N

```
public static final byte UTF8_LOWER_N
```

Constant value: **110**

UTF8_LOWER_O

```
public static final byte UTF8_LOWER_O
```

Constant value: **111**

UTF8_LOWER_P

```
public static final byte UTF8_LOWER_P
```

Constant value: **112**

UTF8_LOWER_Q

```
public static final byte UTF8_LOWER_Q
```

Constant value: **113**

UTF8_LOWER_R

```
public static final byte UTF8_LOWER_R
```

Constant value: **114**

UTF8_LOWER_S

```
public static final byte UTF8_LOWER_S
```

Constant value: **115**

UTF8_LOWER_T

`public static final byte` **`UTF8_LOWER_T`**

Constant value: **116**

UTF8_LOWER_U

`public static final byte` **`UTF8_LOWER_U`**

Constant value: **117**

UTF8_LOWER_V

`public static final byte` **`UTF8_LOWER_V`**

Constant value: **118**

UTF8_LOWER_W

`public static final byte` **`UTF8_LOWER_W`**

Constant value: **119**

UTF8_LOWER_X

`public static final byte` **`UTF8_LOWER_X`**

Constant value: **120**

UTF8_LOWER_Y

`public static final byte` **`UTF8_LOWER_Y`**

Constant value: **121**

UTF8_LOWER_Z

`public static final byte` **`UTF8_LOWER_Z`**

Constant value: **122**

UTF8_UPPER_A

`public static final byte` **`UTF8_UPPER_A`**

Constant value: **65**

UTF8_UPPER_B

`public static final byte` **`UTF8_UPPER_B`**

Constant value: **66**

UTF8_UPPER_C

`public static final byte `**`UTF8_UPPER_C`**

Constant value: **67**

UTF8_UPPER_D

`public static final byte `**`UTF8_UPPER_D`**

Constant value: **68**

UTF8_UPPER_E

`public static final byte `**`UTF8_UPPER_E`**

Constant value: **69**

UTF8_UPPER_F

`public static final byte `**`UTF8_UPPER_F`**

Constant value: **70**

UTF8_UPPER_G

`public static final byte `**`UTF8_UPPER_G`**

Constant value: **71**

UTF8_UPPER_H

`public static final byte `**`UTF8_UPPER_H`**

Constant value: **72**

UTF8_UPPER_I

`public static final byte `**`UTF8_UPPER_I`**

Constant value: **73**

UTF8_UPPER_J

`public static final byte `**`UTF8_UPPER_J`**

Constant value: **74**

UTF8_UPPER_K

```
public static final byte UTF8_UPPER_K
```

Constant value: **75**

UTF8_UPPER_L

```
public static final byte UTF8_UPPER_L
```

Constant value: **76**

UTF8_UPPER_M

```
public static final byte UTF8_UPPER_M
```

Constant value: **77**

UTF8_UPPER_N

```
public static final byte UTF8_UPPER_N
```

Constant value: **78**

UTF8_UPPER_O

```
public static final byte UTF8_UPPER_O
```

Constant value: **79**

UTF8_UPPER_P

```
public static final byte UTF8_UPPER_P
```

Constant value: **80**

UTF8_UPPER_Q

```
public static final byte UTF8_UPPER_Q
```

Constant value: **81**

UTF8_UPPER_R

```
public static final byte UTF8_UPPER_R
```

Constant value: **82**

UTF8_UPPER_S

`public static final byte` **`UTF8_UPPER_S`**

Constant value: **83**

UTF8_UPPER_T

`public static final byte` **`UTF8_UPPER_T`**

Constant value: **84**

UTF8_UPPER_U

`public static final byte` **`UTF8_UPPER_U`**

Constant value: **85**

UTF8_UPPER_V

`public static final byte` **`UTF8_UPPER_V`**

Constant value: **86**

UTF8_UPPER_W

`public static final byte` **`UTF8_UPPER_W`**

Constant value: **87**

UTF8_UPPER_X

`public static final byte` **`UTF8_UPPER_X`**

Constant value: **88**

UTF8_UPPER_Y

`public static final byte` **`UTF8_UPPER_Y`**

Constant value: **89**

UTF8_UPPER_Z

`public static final byte` **`UTF8_UPPER_Z`**

Constant value: **90**

UTF8_LOWER_A_WITH_CIRCUMFLEX

`public static final char` **`UTF8_LOWER_A_WITH_CIRCUMFLEX`**

Constant value: **226**

UTF8_LOWER_E_WITH_CIRCUMFLEX

public static final char **UTF8_LOWER_E_WITH_CIRCUMFLEX**

Constant value: **234**

UTF8_LOWER_I_WITH_CIRCUMFLEX

public static final char **UTF8_LOWER_I_WITH_CIRCUMFLEX**

Constant value: **238**

UTF8_LOWER_O_WITH_CIRCUMFLEX

public static final char **UTF8_LOWER_O_WITH_CIRCUMFLEX**

Constant value: **244**

UTF8_LOWER_U_WITH_CIRCUMFLEX

public static final char **UTF8_LOWER_U_WITH_CIRCUMFLEX**

Constant value: **251**

UTF8_LOWER_A_WITH_GRAVE

public static final char **UTF8_LOWER_A_WITH_GRAVE**

Constant value: **224**

UTF8_LOWER_E_WITH_GRAVE

public static final char **UTF8_LOWER_E_WITH_GRAVE**

Constant value: **232**

UTF8_NBSP

public static final char **UTF8_NBSP**

Constant value: **160**

UTF8_MUSICAL_NOTE

public static final char **UTF8_MUSICAL_NOTE**

Constant value: **9834**

UTF8_BRITISH_POUND

`public static final char` **`UTF8_BRITISH_POUND`**

Constant value: **163**

UTF8_CENTS

`public static final char` **`UTF8_CENTS`**

Constant value: **162**

UTF8_TRADEMARK

`public static final char` **`UTF8_TRADEMARK`**

Constant value: **8482**

UTF8_REVERSE_QUERY

`public static final char` **`UTF8_REVERSE_QUERY`**

Constant value: **191**

UTF8_ONE_HALF

`public static final char` **`UTF8_ONE_HALF`**

Constant value: **189**

CEA608_MUSICAL_NOTE

`public static byte` **`CEA608_MUSICAL_NOTE`**

CEA608_SOLID_BLOCK

`public static byte` **`CEA608_SOLID_BLOCK`**

UTF8MAP_INDEX_OFFSET

`public static final int` **`UTF8MAP_INDEX_OFFSET`**

Constant value: **32**

UTF8MAP

`public static final byte` **`UTF8MAP`**

CEA608_EXTENDED_NA_MAP

public static final char **CEA608_EXTENDED_NA_MAP**

CEA608_EXTENDED_FR_SP_MAP

public static final char **CEA608_EXTENDED_FR_SP_MAP**

CEA608_EXTENDED_PORT_GERMAN_DANISH_MAP

public static final char **CEA608_EXTENDED_PORT_GERMAN_DANISH_MAP**

Constructors

ClosedCaptionCEA608Utils

public **ClosedCaptionCEA608Utils**()

Methods

charUTF8ToCAE608

```
public static byte[] charUTF8ToCAE608(String text,
        int pos,
        String charaterSet,
        int channel)
```

cea608CharToCharUTF8

public static char **cea608CharToCharUTF8**(short b)

calcParity

public static byte **calcParity**(byte inByte)

calcParity

public static short **calcParity**(short inShort)

checkParity

```
public static boolean checkParity(byte inByte)
```

checkParity

```
public static boolean checkParity(short inShort)
```

cea608ExtendedCharacterToUTF8

```
public static Character cea608ExtendedCharacterToUTF8(short command)
```

```
public static boolean checkParity(byte inByte)
```

Package

com.wowza.wms.timedtext.model

com.wowza.wms.timedtext.model
Interface ITimedTextConstants

public interface **ITimedTextConstants**
extends ITimedTextPrivateConstants

Field Summary

public static final	AMF_TEXTTYPE_ON_TEXT_DATA Value: **onTextData**
public static final	DEFAULT_AMF_CONVERTER_TEXT_TYPE Value: **onTextData**
public static final	DEFAULT_AMF_CONVERTER_TRACK_INDEX Value: **99**
public static final	DEFAULT_CAPTION_CHARACTER_SET Default value for Timed Text Property "captionCharacterSet". Value: **UTF-8**
public static final	DEFAULT_MAXIMUM_CAPTION_DURATION Default value for Timed Text Property "maximumCaptionDuration". Value: **10000**
public static final	DEFAULT_PROPERTY_CAPION_LANGUAGES Default value for Timed Text Property "captionLanguages". Value: *****
public static final	DEFAULT_PROPERTY_CAPTION_FILE_NAMING_RULE Default value for Timed Text Property "captionFileNamingRule". Value: **${SourceStreamName}.${FileExtension}**
public static final	DEFAULT_PROPERTY_CAPTION_PATH_NAMING_RULE Default value for Timed Text Property "captionFileNamingRule". Value: **${SourceBasePath}**
public static final	LANGUAGE_ID_ENGLISH Value: **eng**
public static final	LANGUAGE_LOCALE Value: **locale**
public static final	OUTPUT_TYPE_AMF Value: **AMF**
public static final	OUTPUT_TYPE_CEA608 Value: **CEA608**

public static final	**OUTPUT_TYPE_TTML**	
	Value: **TTML**	
public static final	**PROP_3GPP_CAPTION_CHARACTER_SET**	
	Timed Text Property "reader3GPPCaptionCharacterSet": used to determine character set when ingesting TTML captions Overrides general property "captionCharacterSet"	
	Value: **reader3GPPCaptionCharacterSet**	
public static final	**PROP_AMF_CONVERTER_INSERT_ERASES_IN_GAPS**	
	Timed Text Property "amfCaptionConverterInsertErases": insert erase captions if gaps between captions are greater than PROP_MAXIMUM_CAPTION_DURATION	
	Value: **amfCaptionConverterInsertErases**	
public static final	**PROP_AMF_CONVERTER_TEXT_TYPE**	
	Timed Text Property "amfCaptionConverterTextType":AMF text type used in conversion	
	Value: **amfCaptionConverterTextType**	
public static final	**PROP_AMF_CONVERTER_TRACK_INDEX**	
	Timed Text Property "amfCaptionConverterTrackIndex": track index used for captions	
	Value: **amfCaptionConverterTrackIndex**	
public static final	**PROP_CAPTION_CHARACTER_SET**	
	Timed Text Property "captionCharacterSet": used to determine character set when ingesting captions	
	Value: **captionCharacterSet**	
public static final	**PROP_CAPTION_FILE_NAMING_RULE**	
	Timed Text Property "captionFileNamingRule": to change logic determining the caption companion file naming scheme	
	Value: **captionFileNamingRule**	
public static final	**PROP_CAPTION_FILENAME_QUERY_PARAMETER**	
	HTTP Streamer Property "captionFilenameQueryParameter": used for changing query string param used for caption file selection.	
	Value: **captionFilenameQueryParameter**	
public static final	**PROP_CAPTION_LANGUAGE_QUERY_PARAMETER**	
	HTTP Streamer Property "captionLanguageQueryParameter": used for changing query string param used for caption language selection.	
	Value: **captionLanguageQueryParameter**	
public static final	**PROP_CAPTION_LANGUAGES**	
	Timed Text Property "captionLanguages": used to select presented caption Language.	
	Value: **captionLanguages**	
public static final	**PROP_CAPTION_PATH_NAMING_RULE**	
	Timed Text Property "captionPathNamingRule": to change logic determining the caption companion path	
	Value: **captionPathNamingRule**	
public static final	**PROP_CEA608_CONVERTER_CHARACTER_SET**	
	Timed Text Property "cea608CaptionConverterCharacterSet":character set in default CEA caption converter.	
	Value: **cea608CaptionConverterCharacterSet**	

public static final	**PROP_CEA608_CONVERTER_CHARS_PER_LINE** Timed Text Property `"cea608CaptionConverterCharsPerLine"`: max number characters per line in default CEA caption converter. Value: **cea608CaptionConverterCharsPerLine**
public static final	**PROP_CEA608_CONVERTER_COLOR** Timed Text Property `"cea608CaptionConverterColor"`: color of text in default CEA caption converter. Value: **cea608CaptionConverterColor**
public static final	**PROP_CUPERTINO_CAPTION_LANGUAGES** Timed Text Property `"cupertinoCaptionLanguages"`: to enabled captionLanguage selection for Cupertino streaming. Value: **cupertinoCaptionLanguages**
public static final	**PROP_CUPERTINO_VOD_CAPTIONS_ENABLED** Timed Text Property `"cupertinoVODCaptionsEnabled"`: to enabled VOD captions for Cupertino streaming. Value: **cupertinoVODCaptionsEnabled**
public static final	**PROP_DEBUG_3GPP_CAPTION_PARSER** Timed Text Property `"debug3GPPCaptionParser"`: adds info level logging regarding the 3GPP parser Value: **debug3GPPCaptionParser**
public static final	**PROP_DEBUG_3GPP_CAPTION_PARSER_TIME** Timed Text Property `"debug3GPPCaptionParserTime"`: adds info level logging regarding how long it took parser to index Value: **debug3GPPCaptionParserTime**
public static final	**PROP_DEBUG_CUPERTINO_VOD_CAPTION_LANGUAGE_SELECTION** Timed Text Property `"cupertinoDebugVODCaptionLanguageSelection"`: adds info level logging regarding language selection for Cupertino Streaming Value: **cupertinoDebugVODCaptionLanguageSelection**
public static final	**PROP_DEBUG_CUPERTINO_VOD_CAPTION_PROVIDER_DETERMINATION** Timed Text Property `"cupertinoDebugVODCaptionProviderDetermination"`: adds info level logging regarding caption provider determination for a given VOD asset for Cupertino Streaming. Value: **cupertinoDebugVODCaptionProviderDetermination**
public static final	**PROP_DEBUG_RTMP_VOD_CAPTION_LANGUAGE_SELECTION** Timed Text Property `"rtmpDebugVODCaptionLanguageSelection"`: adds info level logging regarding language selection for RTMP Streaming Value: **rtmpDebugVODCaptionLanguageSelection**
public static final	**PROP_DEBUG_RTMP_VOD_CAPTION_PROVIDER_DETERMINATION** Timed Text Property `"rtmpDebugVODCaptionProviderDetermination"`: adds info level logging regarding caption provider determination for a given VOD asset for RTMP Streaming. Value: **rtmpDebugVODCaptionProviderDetermination**
public static final	**PROP_DEBUG_SANJOSE_VOD_CAPTION_LANGUAGE_SELECTION** Timed Text Property `"sanJoseDebugVODCaptionLanguageSelection"`: adds info level logging regarding language selection for San Jose Streaming Value: **sanJoseDebugVODCaptionLanguageSelection**

public static final	PROP_DEBUG_SANJOSE_VOD_CAPTION_PROVIDER_DETERMINATION
	Timed Text Property "sanJoseVODDebugCaptionProviderDetermination": adds info level logging regarding caption provider determination for a given VOD asset for San Jose Streaming. Value: **sanJoseVODDebugCaptionProviderDetermination**
public static final	PROP_DEBUG_SCC_CAPTION_PARSER
	Timed Text Property "debugSCCCaptionParser": adds info level logging regarding the SCC caption parser Value: **debugSCCCaptionParser**
public static final	PROP_DEBUG_SCC_CAPTION_PARSER_TIME
	Timed Text Property "debugSCCCaptionParserTime": adds info level logging regarding how long it took parser to index Value: **debugSCCCaptionParserTime**
public static final	PROP_DEBUG_SCC_VOD_CAPTION_COMPANION_FILES
	Timed Text Property "debugSCCVODCaptionFileDetermination": adds info level logging regarding caption companion file determination for a given VOD asset for SCC provider Value: **debugSCCVODCaptionFileDetermination**
public static final	PROP_DEBUG_SRT_CAPTION_PARSER
	Timed Text Property "debugSRTCaptionParser": adds info level logging regarding the SRT caption parser Value: **debugSRTCaptionParser**
public static final	PROP_DEBUG_SRT_CAPTION_PARSER_TIME
	Timed Text Property "debugSRTCaptionParserTime": adds info level logging regarding how long it took parser to index Value: **debugSRTCaptionParserTime**
public static final	PROP_DEBUG_SRT_VOD_CAPTION_COMPANION_FILES
	Timed Text Property "debugSRTVODCaptionFileDetermination": adds info level logging regarding caption companion file determination for a given VOD asset for SRT provider Value: **debugSRTVODCaptionFileDetermination**
public static final	PROP_DEBUG_TTML_CAPTION_PARSER
	Timed Text Property "debugTTMLCaptionParser": adds info level logging regarding the TTML caption parser Value: **debugTTMLCaptionParser**
public static final	PROP_DEBUG_TTML_CAPTION_PARSER_TIME
	Timed Text Property "debugTTMLCaptionParserTime": adds info level logging regarding how long it took parser to index Value: **debugTTMLCaptionParserTime**
public static final	PROP_DEBUG_TTML_VOD_CAPTION_COMPANION_FILES
	Timed Text Property "debugTTMLVODCaptionFileDetermination": adds info level logging regarding caption companion file determination for a given VOD asset for TTML Streaming. Value: **debugTTMLVODCaptionFileDetermination**
public static final	PROP_DEBUG_VOD_CAPTION_COMPANION_FILES
	Timed Text Property "debugVODCaptionFileDetermination": adds info level logging regarding caption companion file determination for a given VOD asset Value: **debugVODCaptionFileDetermination**

public static final	PROP_DEBUG_VOD_CAPTION_LANGUAGE_SELECTION
	Timed Text Property "debugVODCaptionLanguageSelection": adds info level logging regarding language selection
	Value: **debugVODCaptionLanguageSelection**
public static final	PROP_DEBUG_VOD_CAPTION_PROVIDER_DETERMINATION
	Timed Text Property "debugVODCaptionProviderDetermination": adds info level logging regarding caption provider determination for a given VOD asset
	Value: **debugVODCaptionProviderDetermination**
public static final	PROP_MAXIMUM_CAPTION_DURATION
	Timed Text Property "maximumCaptionDuration": used to determine maximum caption duration
	Value: **maximumCaptionDuration**
public static final	PROP_RTMP_CAPTION_LANGUAGES
	Timed Text Property "rtmpCaptionLanguages": to enabled captionLanguage selection for RTMP Type String.
	Value: **rtmpCaptionLanguages**
public static final	PROP_RTMP_VOD_CAPTIONS_ENABLED
	Timed Text Property "rtmpVODCaptionsEnabled": to enabled VOD captions for RTMP streaming.
	Value: **rtmpVODCaptionsEnabled**
public static final	PROP_SANJOSE_CAPTION_LANGUAGES
	Timed Text Property "sanJoseCaptionLanguages": to enabled captionLanguage selection for San Jose streaming.
	Value: **sanJoseCaptionLanguages**
public static final	PROP_SANJOSE_VOD_CAPTIONS_ENABLED
	Timed Text Property "sanJoseVODCaptionsEnabled": to enabled VOD captions for San Jose streaming.
	Value: **sanJoseVODCaptionsEnabled**
public static final	PROP_SRT_CAPTION_CHARACTER_SET
	Timed Text Property "srtReaderCaptionCharacterSet": used to determine character set when ingesting SRT captions Overrides general property "captionCharacterSet"
	Value: **srtReaderCaptionCharacterSet**
public static final	PROP_TTML_CAPTION_CHARACTER_SET
	Timed Text Property "ttmlReaderCaptionCharacterSet": used to determine character set when ingesting TTML captions Overrides general property "captionCharacterSet"
	Value: **ttmlReaderCaptionCharacterSet**
public static final	PROP_TTML_INLINE_TAGS_IN_TEXT
	Timed Text Property "ttmlInlineTagsInText": TTML parser includes in-line styling and line-break tags in the sample text
	Value: **ttmlInlineTagsInText**
public static final	PROP_UNDEFINED_LANG_CODE
	Timed Text Property "captionUndefinedLanguageId": if incoming caption language is undefined, use this language ID.
	Value: **captionUndefinedLanguageId**
public static final	PROP_VOD_CAPTIONS_ENABLED
	Timed Text Property "vodCaptionsEnabled": to enabled VOD captions for all supported protocols
	Value: **vodCaptionsEnabled**

public static final	QUERYSTR_CAPTION_FILENAME Query string used for choosing caption languages. Value: **wowzacaptionfile**
public static final	QUERYSTR_CAPTIONLANGUAGES Query string used for choosing caption languages. Value: **wowzacaptionlanguages**
public static final	SOURCE_TYPE_3GPP Value: **3GPP**
public static final	SOURCE_TYPE_AMF Value: **AMF**
public static final	SOURCE_TYPE_SCC Value: **SCC**
public static final	SOURCE_TYPE_SRT Value: **SRT**
public static final	SOURCE_TYPE_TTML Value: **TTML**
public static final	TIMED_TEXT_TYPE_CAPTION Value: **Caption**

Fields inherited from interface `com.wowza.wms.timedtext.model.ITimedTextPrivateConstants`

```
DEFAULT_AMF_CONVERTER_CLASS, DEFAULT_CEA608_CONVERTER_CLASS,
DEFAULT_CEA608_IDENTITY_CONVERTER_CLASS,
DEFAULT_PROPERTY_CUPERTINO_VOD_CAPTIONS_DELEGATE_CLASS,
DEFAULT_PROPERTY_RTMP_VOD_CAPTIONS_DELEGATE_CLASS,
DEFAULT_PROPERTY_SANJOSE_VOD_CAPTIONS_DELEGATE_CLASS, DEFAULT_TIMED_TEXT_READER_SCC,
DEFAULT_TIMED_TEXT_READER_SRT, DEFAULT_TIMED_TEXT_READER_TTML, PROP_AMF_CONVERTER_CLASS,
PROP_CEA608_CONVERTER_CLASS, PROP_CEA608_MAX_COMMANDS_PER_FRAME,
PROP_CUPERTINO_VOD_CAPTIONS_DELEGATE_CLASS, PROP_MP4_TO_AMF_CONVERTER_CLASS,
PROP_MP4_TO_CEA608_CONVERTER_CLASS, PROP_RTMP_VOD_CAPTIONS_DELEGATE_CLASS,
PROP_SANJOSE_VOD_CAPTIONS_DELEGATE_CLASS, PROP_SCC_TO_CEA608_CONVERTER_CLASS,
PROP_SRT_TO_AMF_CONVERTER_CLASS, PROP_SRT_TO_CEA608_CONVERTER_CLASS,
PROP_TTML_TO_AMF_CONVERTER_CLASS, PROP_TTML_TO_CEA608_CONVERTER_CLASS,
PROPERTY_SOURCE_DURATION, PROPERTY_SOURCE_TIME_SCALE, PROPERTY_SOURCE_TRACK_INDEX,
TIMED_TEXT_READER_EXTENSION_SCC, TIMED_TEXT_READER_EXTENSION_SRT,
TIMED_TEXT_READER_EXTENSION_TTML
```

Fields

TIMED_TEXT_TYPE_CAPTION

`public static final java.lang.String` **TIMED_TEXT_TYPE_CAPTION**

Constant value: **Caption**

SOURCE_TYPE_AMF

`public static final java.lang.String` **`SOURCE_TYPE_AMF`**

Constant value: **AMF**

SOURCE_TYPE_TTML

`public static final java.lang.String` **`SOURCE_TYPE_TTML`**

Constant value: **TTML**

SOURCE_TYPE_3GPP

`public static final java.lang.String` **`SOURCE_TYPE_3GPP`**

Constant value: **3GPP**

SOURCE_TYPE_SRT

`public static final java.lang.String` **`SOURCE_TYPE_SRT`**

Constant value: **SRT**

SOURCE_TYPE_SCC

`public static final java.lang.String` **`SOURCE_TYPE_SCC`**

Constant value: **SCC**

OUTPUT_TYPE_CEA608

`public static final java.lang.String` **`OUTPUT_TYPE_CEA608`**

Constant value: **CEA608**

OUTPUT_TYPE_AMF

`public static final java.lang.String` **`OUTPUT_TYPE_AMF`**

Constant value: **AMF**

OUTPUT_TYPE_TTML

`public static final java.lang.String` **`OUTPUT_TYPE_TTML`**

Constant value: **TTML**

AMF_TEXTTYPE_ON_TEXT_DATA

public static final java.lang.String **AMF_TEXTTYPE_ON_TEXT_DATA**

Constant value: **onTextData**

LANGUAGE_LOCALE

public static final java.lang.String **LANGUAGE_LOCALE**

Constant value: **locale**

LANGUAGE_ID_ENGLISH

public static final java.lang.String **LANGUAGE_ID_ENGLISH**

Constant value: **eng**

PROP_VOD_CAPTIONS_ENABLED

public static final java.lang.String **PROP_VOD_CAPTIONS_ENABLED**

Timed Text Property "vodCaptionsEnabled": to enabled VOD captions for all supported protocols

Type boolean. The default is true.

Add the property to Application/TimedText/Properties in Application.xml

VOD Captions can be enabled on a per protocol basis using PROP_CUPERTINO_VOD_CAPTIONS_ENABLED, PROP_RTMP_VOD_CAPTIONS_ENABLED, PROP_SANJOSE_VOD_CAPTIONS_ENABLED.
Constant value: **vodCaptionsEnabled**

See Also:
PROP_CUPERTINO_VOD_CAPTIONS_ENABLED
PROP_RTMP_VOD_CAPTIONS_ENABLED
PROP_SANJOSE_VOD_CAPTIONS_ENABLED

PROP_CUPERTINO_VOD_CAPTIONS_ENABLED

public static final java.lang.String **PROP_CUPERTINO_VOD_CAPTIONS_ENABLED**

Timed Text Property "cupertinoVODCaptionsEnabled": to enabled VOD captions for Cupertino streaming.

Type boolean. The default is true.

Add the property to Application/TimedText/Properties in Application.xml

VOD Captions can be enabled for all protocols using PROP_VOD_CAPTIONS_ENABLED.
Constant value: **cupertinoVODCaptionsEnabled**

See Also:
PROP_VOD_CAPTIONS_ENABLED

PROP_RTMP_VOD_CAPTIONS_ENABLED

public static final java.lang.String **PROP_RTMP_VOD_CAPTIONS_ENABLED**

Timed Text Property `"rtmpVODCaptionsEnabled"`: to enabled VOD captions for RTMP streaming.

Type boolean. The default is true.

Add the property to Application/TimedText/Properties in Application.xml

VOD Captions can be enabled for all protocols using PROP_VOD_CAPTIONS_ENABLED.
Constant value: **rtmpVODCaptionsEnabled**

See Also:
> PROP_VOD_CAPTIONS_ENABLED

PROP_SANJOSE_VOD_CAPTIONS_ENABLED

`public static final java.lang.String` **PROP_SANJOSE_VOD_CAPTIONS_ENABLED**

Timed Text Property `"sanJoseVODCaptionsEnabled"`: to enabled VOD captions for San Jose streaming.

Type boolean. The default is true.

Add the property to Application/TimedText/Properties in Application.xml

VOD Captions can be enabled for all protocols using PROP_VOD_CAPTIONS_ENABLED.
Constant value: **sanJoseVODCaptionsEnabled**

See Also:
> PROP_VOD_CAPTIONS_ENABLED

PROP_CAPTION_LANGUAGES

`public static final java.lang.String` **PROP_CAPTION_LANGUAGES**

Timed Text Property `"captionLanguages"`: used to select presented caption Language.

Type String. The default is DEFAULT_PROPERTY_CAPION_LANGUAGES

Add the property to Application/TimedText/Properties in Application.xml

VOD Caption languages can be specified on a per protocol basis using PROP_CUPERTINO_CAPTION_LANGUAGES,
PROP_RTMP_CAPTION_LANGUAGES, PROP_SANJOSE_CAPTION_LANGUAGES.
Constant value: **captionLanguages**

See Also:
> PROP_CUPERTINO_CAPTION_LANGUAGES
> PROP_RTMP_CAPTION_LANGUAGES
> PROP_SANJOSE_CAPTION_LANGUAGES

DEFAULT_PROPERTY_CAPION_LANGUAGES

`public static final java.lang.String` **DEFAULT_PROPERTY_CAPION_LANGUAGES**

Default value for Timed Text Property `"captionLanguages"`.

Default value is "*", meaning present all found languages.
Constant value: *****

See Also:
> PROP_CAPTION_LANGUAGES

PROP_CUPERTINO_CAPTION_LANGUAGES

`public static final java.lang.String` **PROP_CUPERTINO_CAPTION_LANGUAGES**

Timed Text Property "cupertinoCaptionLanguages": to enabled captionLanguage selection for Cupertino streaming.

Type String. The default is DEFAULT_PROPERTY_CAPION_LANGUAGES

Add the property to Application/TimedText/Properties in Application.xml

VOD Captions can be enabled for all protocols using PROP_CAPTION_LANGUAGES.
Constant value: **cupertinoCaptionLanguages**

> See Also:
>   PROP_CAPTION_LANGUAGES

PROP_RTMP_CAPTION_LANGUAGES

`public static final java.lang.String` **PROP_RTMP_CAPTION_LANGUAGES**

Timed Text Property "rtmpCaptionLanguages": to enabled captionLanguage selection for RTMP Type String. The default is DEFAULT_PROPERTY_CAPION_LANGUAGES

Add the property to Application/TimedText/Properties in Application.xml

VOD Captions can be enabled for all protocols using PROP_CAPTION_LANGUAGES.
Constant value: **rtmpCaptionLanguages**

> See Also:
>   PROP_CAPTION_LANGUAGES

PROP_SANJOSE_CAPTION_LANGUAGES

`public static final java.lang.String` **PROP_SANJOSE_CAPTION_LANGUAGES**

Timed Text Property "sanJoseCaptionLanguages": to enabled captionLanguage selection for San Jose streaming.

Type String. The default is DEFAULT_PROPERTY_CAPION_LANGUAGES

Add the property to Application/TimedText/Properties in Application.xml

VOD Captions can be enabled for all protocols using PROP_CAPTION_LANGUAGES.
Constant value: **sanJoseCaptionLanguages**

> See Also:
>   PROP_CAPTION_LANGUAGES

PROP_DEBUG_VOD_CAPTION_LANGUAGE_SELECTION

`public static final java.lang.String` **PROP_DEBUG_VOD_CAPTION_LANGUAGE_SELECTION**

Timed Text Property "debugVODCaptionLanguageSelection": adds info level logging regarding language selection

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Can be enabled on a per protocol basis using PROP_DEBUG_CUPERTINO_VOD_CAPTION_LANGUAGE_SELECTION, PROP_DEBUG_RTMP_VOD_CAPTION_LANGUAGE_SELECTION, PROP_DEBUG_SANJOSE_VOD_CAPTION_LANGUAGE_SELECTION.
Constant value: **debugVODCaptionLanguageSelection**

PROP_DEBUG_CUPERTINO_VOD_CAPTION_LANGUAGE_SELECTION

`public static final java.lang.String`
PROP_DEBUG_CUPERTINO_VOD_CAPTION_LANGUAGE_SELECTION

Timed Text Property `"cupertinoDebugVODCaptionLanguageSelection"`: adds info level logging regarding language selection for Cupertino Streaming

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **cupertinoDebugVODCaptionLanguageSelection**

See Also:
PROP_DEBUG_VOD_CAPTION_LANGUAGE_SELECTION

PROP_DEBUG_RTMP_VOD_CAPTION_LANGUAGE_SELECTION

`public static final java.lang.String` **PROP_DEBUG_RTMP_VOD_CAPTION_LANGUAGE_SELECTION**

Timed Text Property `"rtmpDebugVODCaptionLanguageSelection"`: adds info level logging regarding language selection for RTMP Streaming

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **rtmpDebugVODCaptionLanguageSelection**

See Also:
PROP_DEBUG_VOD_CAPTION_LANGUAGE_SELECTION

PROP_DEBUG_SANJOSE_VOD_CAPTION_LANGUAGE_SELECTION

`public static final java.lang.String` **PROP_DEBUG_SANJOSE_VOD_CAPTION_LANGUAGE_SELECTION**

Timed Text Property `"sanJoseDebugVODCaptionLanguageSelection"`: adds info level logging regarding language selection for San Jose Streaming

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **sanJoseDebugVODCaptionLanguageSelection**

See Also:
PROP_DEBUG_VOD_CAPTION_LANGUAGE_SELECTION

PROP_DEBUG_VOD_CAPTION_PROVIDER_DETERMINATION

`public static final java.lang.String` **PROP_DEBUG_VOD_CAPTION_PROVIDER_DETERMINATION**

Timed Text Property `"debugVODCaptionProviderDetermination"`: adds info level logging regarding caption provider determination for a given VOD asset

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Can be enabled on a per protocol basis using PROP_DEBUG_CUPERTINO_VOD_CAPTION_PROVIDER_DETERMINATION, PROP_DEBUG_RTMP_VOD_CAPTION_PROVIDER_DETERMINATION, PROP_DEBUG_SANJOSE_VOD_CAPTION_PROVIDER_DETERMINATION.
Constant value: **debugVODCaptionProviderDetermination**

PROP_DEBUG_CUPERTINO_VOD_CAPTION_PROVIDER_DETERMINATION

`public static final java.lang.String`
`PROP_DEBUG_CUPERTINO_VOD_CAPTION_PROVIDER_DETERMINATION`

Timed Text Property `"cupertinoDebugVODCaptionProviderDetermination"`: adds info level logging regarding caption provider determination for a given VOD asset for Cupertino Streaming.

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **`cupertinoDebugVODCaptionProviderDetermination`**

See Also:
> PROP_DEBUG_VOD_CAPTION_PROVIDER_DETERMINATION

PROP_DEBUG_RTMP_VOD_CAPTION_PROVIDER_DETERMINATION

`public static final java.lang.String`
`PROP_DEBUG_RTMP_VOD_CAPTION_PROVIDER_DETERMINATION`

Timed Text Property `"rtmpDebugVODCaptionProviderDetermination"`: adds info level logging regarding caption provider determination for a given VOD asset for RTMP Streaming.

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **`rtmpDebugVODCaptionProviderDetermination`**

See Also:
> PROP_DEBUG_VOD_CAPTION_PROVIDER_DETERMINATION

PROP_DEBUG_SANJOSE_VOD_CAPTION_PROVIDER_DETERMINATION

`public static final java.lang.String`
`PROP_DEBUG_SANJOSE_VOD_CAPTION_PROVIDER_DETERMINATION`

Timed Text Property `"sanJoseVODDebugCaptionProviderDetermination"`: adds info level logging regarding caption provider determination for a given VOD asset for San Jose Streaming.

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **`sanJoseVODDebugCaptionProviderDetermination`**

See Also:
> PROP_DEBUG_VOD_CAPTION_PROVIDER_DETERMINATION

PROP_DEBUG_VOD_CAPTION_COMPANION_FILES

`public static final java.lang.String` **`PROP_DEBUG_VOD_CAPTION_COMPANION_FILES`**

Timed Text Property `"debugVODCaptionFileDetermination"`: adds info level logging regarding caption companion file determination for a given VOD asset

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Can be enabled on a per provider basis as well using PROP_DEBUG_TTML_VOD_CAPTION_COMPANION_FILES
Constant value: **debugVODCaptionFileDetermination**

PROP_UNDEFINED_LANG_CODE

`public static final java.lang.String` **PROP_UNDEFINED_LANG_CODE**

Timed Text Property `"captionUndefinedLanguageId"`: if incoming caption language is undefined, use this language ID.

Type String. If not defined, the Locale's 3 character language code is used. See Locale.getDefault().getISO3Language()

Add the property to Application/TimedText/Properties in Application.xml
Constant value: **captionUndefinedLanguageId**

PROP_CAPTION_FILE_NAMING_RULE

`public static final java.lang.String` **PROP_CAPTION_FILE_NAMING_RULE**

Timed Text Property `"captionFileNamingRule"`: to change logic determining the caption companion file naming scheme

Type String. The default value is DEFAULT_PROPERTY_CAPTION_FILE_NAMING_RULE.

This string is used to find the caption file for a given VOD asset. It is used in conjunction with PROP_CAPTION_PATH_NAMING_RULE, which determines the file location.

It is comprised of variables preceded by a dollar sign and enclosed in squiggly brackets. For example: "${var1}.{var2}"

Valid variables include these:

- ${SourceStreamName} : The baseName of the VOD file
- ${SourceBasePath} : The base path of the VOD asset
- ${FileExtension} : Registered file extensions with the Timed Text Provider

and these standard ones:

- ${com.wowza.wms.context.VHost}
- ${com.wowza.wms.context.VHostConfigHome", appInstance.getVHost().getHomePath()};
- ${com.wowza.wms.context.Application", appInstance.getApplication().getName()};
- ${com.wowza.wms.context.ApplicationInstance", appInstance.getName()};

Add the property to Application/TimedText/Properties in Application.xml
Constant value: **captionFileNamingRule**

See Also:
DEFAULT_PROPERTY_CAPTION_FILE_NAMING_RULE

DEFAULT_PROPERTY_CAPTION_FILE_NAMING_RULE

`public static final java.lang.String` **DEFAULT_PROPERTY_CAPTION_FILE_NAMING_RULE**

Default value for Timed Text Property `"captionFileNamingRule"`.

Default value is "${SourceStreamName}.${FileExtension}"
Constant value: **${SourceStreamName}.${FileExtension}**

See Also:
> PROP_CAPTION_FILE_NAMING_RULE

PROP_CAPTION_PATH_NAMING_RULE

`public static final java.lang.String` **`PROP_CAPTION_PATH_NAMING_RULE`**

> Timed Text Property `"captionPathNamingRule"`: to change logic determining the caption companion path

> Type String. The default value is DEFAULT_PROPERTY_CAPTION_PATH_NAMING_RULE.

> This string is used to find the caption file location for a given VOD asset. It is used in conjunction with PROP_CAPTION_FILE_NAMING_RULE, which determines the file name.

> It is comprised of variables preceded by a dollar sign and enclosed in squiggly brackets. For example: "${var1}.{var2}"

> Valid variables include these:

>   - ${SourceStreamName} : The baseName of the VOD file
>   - ${SourceBasePath} : The base path of the VOD asset
>   - ${FileExtension} : Registered file extensions with the Timed Text Provider

> and these standard ones:

>   - ${com.wowza.wms.context.VHost}
>   - ${com.wowza.wms.context.VHostConfigHome", appInstance.getVHost().getHomePath()};
>   - ${com.wowza.wms.context.Application", appInstance.getApplication().getName()};
>   - ${com.wowza.wms.context.ApplicationInstance", appInstance.getName()};

> Add the property to Application/TimedText/Properties in Application.xml
> Constant value: **`captionPathNamingRule`**

> See Also:
> > DEFAULT_PROPERTY_CAPTION_PATH_NAMING_RULE

DEFAULT_PROPERTY_CAPTION_PATH_NAMING_RULE

`public static final java.lang.String` **`DEFAULT_PROPERTY_CAPTION_PATH_NAMING_RULE`**

> Default value for Timed Text Property `"captionFileNamingRule"`. Default value is "${SourceBasePath}"
> Constant value: **`${SourceBasePath}`**

> See Also:
> > PROP_CAPTION_PATH_NAMING_RULE

PROP_MAXIMUM_CAPTION_DURATION

`public static final java.lang.String` **`PROP_MAXIMUM_CAPTION_DURATION`**

> Timed Text Property `"maximumCaptionDuration"`: used to determine maximum caption duration

> Type Integer. In ms. The default is DEFAULT_MAXIMUM_CAPTION_DURATION

> Add the property to Application/TimedText/Properties in Application.xml

> Constant value: **`maximumCaptionDuration`**

DEFAULT_MAXIMUM_CAPTION_DURATION

`public static final int DEFAULT_MAXIMUM_CAPTION_DURATION`

Default value for Timed Text Property `"maximumCaptionDuration"`.

Default value is 10000.
Constant value: **10000**

See Also:
> PROP_MAXIMUM_CAPTION_DURATION

PROP_CAPTION_CHARACTER_SET

`public static final java.lang.String PROP_CAPTION_CHARACTER_SET`

Timed Text Property `"captionCharacterSet"`: used to determine character set when ingesting captions

Type String. The default is DEFAULT_CAPTION_CHARACTER_SET

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **captionCharacterSet**

DEFAULT_CAPTION_CHARACTER_SET

`public static final java.lang.String DEFAULT_CAPTION_CHARACTER_SET`

Default value for Timed Text Property `"captionCharacterSet"`.

Default value is "UTF-8"
Constant value: **UTF-8**

See Also:
> PROP_CAPTION_CHARACTER_SET

PROP_SRT_CAPTION_CHARACTER_SET

`public static final java.lang.String PROP_SRT_CAPTION_CHARACTER_SET`

Timed Text Property `"srtReaderCaptionCharacterSet"`: used to determine character set when ingesting SRT captions
Overrides general property "captionCharacterSet"

Type String. The default is DEFAULT_CAPTION_CHARACTER_SET
Constant value: **srtReaderCaptionCharacterSet**

See Also:

Add the property to Application/TimedText/Properties in Application.xml

PROP_TTML_CAPTION_CHARACTER_SET

`public static final java.lang.String PROP_TTML_CAPTION_CHARACTER_SET`

Timed Text Property `"ttmlReaderCaptionCharacterSet"`: used to determine character set when ingesting TTML captions Overrides general property "captionCharacterSet"

Type String. The default is DEFAULT_CAPTION_CHARACTER_SET

Constant value: **ttmlReaderCaptionCharacterSet**

See Also:

Add the property to Application/TimedText/Properties in Application.xml

PROP_3GPP_CAPTION_CHARACTER_SET

`public static final java.lang.String PROP_3GPP_CAPTION_CHARACTER_SET`

Timed Text Property "`reader3GPPCaptionCharacterSet`": used to determine character set when ingesting TTML captions Overrides general property "captionCharacterSet"

Type String. The default is `DEFAULT_CAPTION_CHARACTER_SET`
Constant value: **reader3GPPCaptionCharacterSet**

See Also:

Add the property to Application/TimedText/Properties in Application.xml

PROP_CEA608_CONVERTER_COLOR

`public static final java.lang.String PROP_CEA608_CONVERTER_COLOR`

Timed Text Property "`cea608CaptionConverterColor`": color of text in default CEA caption converter.

Type Integer. Default is `ClosedCaptionCEA608Utils.COL0_WHITE`

Add the property to Application/TimedText/Properties in Application.xml
Constant value: **cea608CaptionConverterColor**

See Also:
- `ClosedCaptionCEA608Utils.COL0_WHITE`
- `ClosedCaptionCEA608Utils.COL0_GREEN`
- `ClosedCaptionCEA608Utils.COL0_BLUE`
- `ClosedCaptionCEA608Utils.COL0_CYAN`
- `ClosedCaptionCEA608Utils.COL0_RED`
- `ClosedCaptionCEA608Utils.COL0_YELLOW`
- `ClosedCaptionCEA608Utils.COL0_MAGENTA`

PROP_CEA608_CONVERTER_CHARS_PER_LINE

`public static final java.lang.String PROP_CEA608_CONVERTER_CHARS_PER_LINE`

Timed Text Property "`cea608CaptionConverterCharsPerLine`": max number characters per line in default CEA caption converter.

Type Integer. Default is `ClosedCaptionCEA608Utils.COUNT_COLS`

Add the property to Application/TimedText/Properties in Application.xml
Constant value: **cea608CaptionConverterCharsPerLine**

PROP_CEA608_CONVERTER_CHARACTER_SET

`public static final java.lang.String PROP_CEA608_CONVERTER_CHARACTER_SET`

Timed Text Property `"cea608CaptionConverterCharacterSet"`:character set in default CEA caption converter.

Type String. Default is "UTF-8"

Add the property to Application/TimedText/Properties in Application.xml
Constant value: **cea608CaptionConverterCharacterSet**

PROP_AMF_CONVERTER_TEXT_TYPE

`public static final java.lang.String` **PROP_AMF_CONVERTER_TEXT_TYPE**

Timed Text Property `"amfCaptionConverterTextType"`:AMF text type used in conversion

Type String. Default is AMF_TEXTTYPE_ON_TEXT_DATA

Add the property to Application/TimedText/Properties in Application.xml
Constant value: **amfCaptionConverterTextType**

DEFAULT_AMF_CONVERTER_TEXT_TYPE

`public static final java.lang.String` **DEFAULT_AMF_CONVERTER_TEXT_TYPE**

Constant value: **onTextData**

PROP_AMF_CONVERTER_TRACK_INDEX

`public static final java.lang.String` **PROP_AMF_CONVERTER_TRACK_INDEX**

Timed Text Property `"amfCaptionConverterTrackIndex"`: track index used for captions

Type Integer.

Add the property to Application/TimedText/Properties in Application.xml
Constant value: **amfCaptionConverterTrackIndex**

DEFAULT_AMF_CONVERTER_TRACK_INDEX

`public static final int` **DEFAULT_AMF_CONVERTER_TRACK_INDEX**

Constant value: **99**

PROP_AMF_CONVERTER_INSERT_ERASES_IN_GAPS

`public static final java.lang.String` **PROP_AMF_CONVERTER_INSERT_ERASES_IN_GAPS**

Timed Text Property `"amfCaptionConverterInsertErases"`: insert erase captions if gaps between captions are greater than PROP_MAXIMUM_CAPTION_DURATION

Type boolean. The default is true.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **amfCaptionConverterInsertErases**

PROP_DEBUG_TTML_VOD_CAPTION_COMPANION_FILES

`public static final java.lang.String` **PROP_DEBUG_TTML_VOD_CAPTION_COMPANION_FILES**

Timed Text Property `"debugTTMLVODCaptionFileDetermination"`: adds info level logging regarding caption companion file determination for a given VOD asset for TTML Streaming.

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **debugTTMLVODCaptionFileDetermination**

See Also:
>   PROP_DEBUG_VOD_CAPTION_COMPANION_FILES

PROP_DEBUG_TTML_CAPTION_PARSER

`public static final java.lang.String` **PROP_DEBUG_TTML_CAPTION_PARSER**

Timed Text Property `"debugTTMLCaptionParser"`: adds info level logging regarding the TTML caption parser

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **debugTTMLCaptionParser**

PROP_DEBUG_TTML_CAPTION_PARSER_TIME

`public static final java.lang.String` **PROP_DEBUG_TTML_CAPTION_PARSER_TIME**

Timed Text Property `"debugTTMLCaptionParserTime"`: adds info level logging regarding how long it took parser to index

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **debugTTMLCaptionParserTime**

PROP_TTML_INLINE_TAGS_IN_TEXT

`public static final java.lang.String` **PROP_TTML_INLINE_TAGS_IN_TEXT**

Timed Text Property `"ttmlInlineTagsInText"`: TTML parser includes in-line styling and line-break tags in the sample text

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Example sample: "

I can linebreak
 or change fontWeight to bold in the middle of a sample." If ttmlInlineTagsInText=true then the parser provides the sample text as: "I can linebreak
 or change fontWeight to bold in the middle of a sample." If ttmlInlineTagsInText=false then the parser provides the sample text as: "I can linebreak or change fontWeight to bold in the middle of a sample."

Constant value: **ttmlInlineTagsInText**

PROP_DEBUG_SRT_VOD_CAPTION_COMPANION_FILES

`public static final java.lang.String` **PROP_DEBUG_SRT_VOD_CAPTION_COMPANION_FILES**

Timed Text Property `"debugSRTVODCaptionFileDetermination"`: adds info level logging regarding caption companion file determination for a given VOD asset for SRT provider

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **debugSRTVODCaptionFileDetermination**

See Also:
> [PROP_DEBUG_VOD_CAPTION_COMPANION_FILES](#)

PROP_DEBUG_SRT_CAPTION_PARSER

`public static final java.lang.String `**`PROP_DEBUG_SRT_CAPTION_PARSER`**

Timed Text Property `"debugSRTCaptionParser"`: adds info level logging regarding the SRT caption parser

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **debugSRTCaptionParser**

PROP_DEBUG_SRT_CAPTION_PARSER_TIME

`public static final java.lang.String `**`PROP_DEBUG_SRT_CAPTION_PARSER_TIME`**

Timed Text Property `"debugSRTCaptionParserTime"`: adds info level logging regarding how long it took parser to index

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **debugSRTCaptionParserTime**

PROP_DEBUG_SCC_VOD_CAPTION_COMPANION_FILES

`public static final java.lang.String `**`PROP_DEBUG_SCC_VOD_CAPTION_COMPANION_FILES`**

Timed Text Property `"debugSCCVODCaptionFileDetermination"`: adds info level logging regarding caption companion file determination for a given VOD asset for SCC provider

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **debugSCCVODCaptionFileDetermination**

See Also:
> [PROP_DEBUG_VOD_CAPTION_COMPANION_FILES](#)

PROP_DEBUG_SCC_CAPTION_PARSER

`public static final java.lang.String `**`PROP_DEBUG_SCC_CAPTION_PARSER`**

Timed Text Property `"debugSCCCaptionParser"`: adds info level logging regarding the SCC caption parser

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **`debugSCCCaptionParser`**

PROP_DEBUG_SCC_CAPTION_PARSER_TIME

`public static final java.lang.String` **`PROP_DEBUG_SCC_CAPTION_PARSER_TIME`**

Timed Text Property `"debugSCCCaptionParserTime"`: adds info level logging regarding how long it took parser to index

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **`debugSCCCaptionParserTime`**

PROP_DEBUG_3GPP_CAPTION_PARSER

`public static final java.lang.String` **`PROP_DEBUG_3GPP_CAPTION_PARSER`**

Timed Text Property `"debug3GPPCaptionParser"`: adds info level logging regarding the 3GPP parser

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **`debug3GPPCaptionParser`**

PROP_DEBUG_3GPP_CAPTION_PARSER_TIME

`public static final java.lang.String` **`PROP_DEBUG_3GPP_CAPTION_PARSER_TIME`**

Timed Text Property `"debug3GPPCaptionParserTime"`: adds info level logging regarding how long it took parser to index

Type boolean. The default is false.

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **`debug3GPPCaptionParserTime`**

QUERYSTR_CAPTIONLANGUAGES

`public static final java.lang.String` **`QUERYSTR_CAPTIONLANGUAGES`**

Query string used for choosing caption languages. Language must be presented using ISO 3 letter language codes.
Constant value: **`wowzacaptionlanguages`**

PROP_CAPTION_LANGUAGE_QUERY_PARAMETER

`public static final java.lang.String` **`PROP_CAPTION_LANGUAGE_QUERY_PARAMETER`**

HTTP Streamer Property "captionLanguageQueryParameter": used for changing query string param used for caption language selection. Note: Must go into HTTPStreamers.xml under Properties for each streamer type

Type String. The default is "wowzacaptionlanguages"

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **captionLanguageQueryParameter**

QUERYSTR_CAPTION_FILENAME

public static final java.lang.String **QUERYSTR_CAPTION_FILENAME**

Query string used for choosing caption languages. Language must be presented using ISO 3 letter language codes.
Constant value: **wowzacaptionfile**

PROP_CAPTION_FILENAME_QUERY_PARAMETER

public static final java.lang.String **PROP_CAPTION_FILENAME_QUERY_PARAMETER**

HTTP Streamer Property "captionFilenameQueryParameter": used for changing query string param used for caption file selection. Note: Must go into HTTPStreamers.xml under Properties for each streamer type

Type String. The default is "wowzacaptionfile"

Add the property to Application/TimedText/Properties in Application.xml

Constant value: **captionFilenameQueryParameter**

Package

com.wowza.wms.transcoder.model

com.wowza.wms.transcoder.model
Interface ILiveStreamTranscoderActionNotify

public interface **ILiveStreamTranscoderActionNotify**
extends

ILiveStreamTranscoderActionNotify: listener interface for live stream transcoder events.

Method Summary

void	**onCalculateSourceAudioBitrate**(LiveStreamTranscoder liveStreamTranscoder, long bitrate) Called when the bitrate of the source audio stream is calculated
void	**onCalculateSourceVideoBitrate**(LiveStreamTranscoder liveStreamTranscoder, long bitrate) Called when the bitrate of the source video stream is calculated
void	**onInitAfterLoadTemplate**(LiveStreamTranscoder liveStreamTranscoder) Called just after transcoder template is loaded.
void	**onInitBeforeLoadTemplate**(LiveStreamTranscoder liveStreamTranscoder) Called just before transcoder template is loaded
void	**onInitStart**(LiveStreamTranscoder liveStreamTranscoder, String streamName, String transcoderName, **IApplicationInstance** appInstance, LiveStreamTranscoderItem liveStreamTranscoderItem) Call when live stream transcoder is first created
void	**onInitStop**(LiveStreamTranscoder liveStreamTranscoder) At the end of the initialization process
void	**onRegisterStreamNameGroup**(LiveStreamTranscoder liveStreamTranscoder, TranscoderStreamNameGroup streamNameGroup) Called after a stream name group is resolved and registered with MediaStreamMap
void	**onResetStream**(LiveStreamTranscoder liveStreamTranscoder) Called when the stream feeding the live stream transcoder switches.
void	**onSessionAudioDecodeCodecInfo**(LiveStreamTranscoder liveStreamTranscoder, com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio) Called when audio decoding information is available.
void	**onSessionAudioEncodeCodecInfo**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionAudioEncode sessionAudioEncode, com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio) Called when audio encoding information is available.
void	**onSessionAudioEncodeCreate**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionAudioEncode sessionAudioEncode) Called when audio encoder session is created.
void	**onSessionAudioEncodeInit**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionAudioEncode sessionAudioEncode) Called after audio session is initialized.

void	**onSessionAudioEncodeSetup**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionAudioEncode sessionAudioEncode)	
	Called after native audio encoder is created and initialized.	
void	**onSessionDataEncodeCreate**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionDataEncode sessionDataEncode)	
	Called when data encoder session is created.	
void	**onSessionDataEncodeInit**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionDataEncode sessionDataEncode)	
	Called after data session is initialized.	
void	**onSessionDestinationCreate**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionDestination sessionDestination)	
	Called when transcoding destination is created	
void	**onSessionVideoDecodeCodecInfo**(LiveStreamTranscoder liveStreamTranscoder, com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)	
	Called when video decoding information is available.	
void	**onSessionVideoEncodeCodecInfo**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionVideoEncode sessionVideoEncode, com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)	
	Called when video encoding information is available.	
void	**onSessionVideoEncodeCreate**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionVideoEncode sessionVideoEncode)	
	Called when video encoder session is created.	
void	**onSessionVideoEncodeInit**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionVideoEncode sessionVideoEncode)	
	Called after video session is initialized.	
void	**onSessionVideoEncodeSetup**(LiveStreamTranscoder liveStreamTranscoder, TranscoderSessionVideoEncode sessionVideoEncode)	
	Called after native video encoder is created and initialized.	
void	**onShutdownStart**(LiveStreamTranscoder liveStreamTranscoder)	
	Called when the live stream transcoder starts to shutdown.	
void	**onShutdownStop**(LiveStreamTranscoder liveStreamTranscoder)	
	Called when the live stream transcoder is shutdown.	
void	**onUnregisterStreamNameGroup**(LiveStreamTranscoder liveStreamTranscoder, TranscoderStreamNameGroup streamNameGroup)	
	Called after a stream name group is unregistered with MediaStreamMap	

Methods

onInitStart

```
public void onInitStart(LiveStreamTranscoder liveStreamTranscoder,
        String streamName,
        String transcoderName,
        IApplicationInstance appInstance,
        LiveStreamTranscoderItem liveStreamTranscoderItem)
```

Call when live stream transcoder is first created

Parameters:

      `liveStreamTranscoder` - live stream transcoder
      `streamName` - stream name
      `transcoderName` - transcoder name
      `appInstance` - application instance
      `liveStreamTranscoderItem` - live stream transcoder definition

onInitBeforeLoadTemplate

public void **onInitBeforeLoadTemplate**(LiveStreamTranscoder liveStreamTranscoder)

Called just before transcoder template is loaded

Parameters:

      `liveStreamTranscoder` - live stream transcoder

onInitAfterLoadTemplate

public void **onInitAfterLoadTemplate**(LiveStreamTranscoder liveStreamTranscoder)

Called just after transcoder template is loaded. Good place to modify values loaded from template.

Parameters:

      `liveStreamTranscoder` - live stream transcoder

onInitStop

public void **onInitStop**(LiveStreamTranscoder liveStreamTranscoder)

At the end of the initialization process

Parameters:

      `liveStreamTranscoder` - live stream transcoder

onCalculateSourceVideoBitrate

public void **onCalculateSourceVideoBitrate**(LiveStreamTranscoder liveStreamTranscoder,
      long bitrate)

Called when the bitrate of the source video stream is calculated

Parameters:

      `liveStreamTranscoder` - live stream transcoder
      `bitrate` - source bitrate (bytes per second)

onCalculateSourceAudioBitrate

public void **onCalculateSourceAudioBitrate**(LiveStreamTranscoder liveStreamTranscoder,
      long bitrate)

Called when the bitrate of the source audio stream is calculated

Parameters:

      `liveStreamTranscoder` - live stream transcoder
      `bitrate` - source bitrate (bytes per second)

onSessionDestinationCreate

```
public void onSessionDestinationCreate(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionDestination sessionDestination)
```

Called when transcoding destination is created

Parameters:
liveStreamTranscoder - live stream transcoder
sessionDestination - destination

onSessionVideoEncodeCreate

```
public void onSessionVideoEncodeCreate(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionVideoEncode sessionVideoEncode)
```

Called when video encoder session is created.

Parameters:
liveStreamTranscoder - live stream transcoder
sessionVideoEncode - video session

onSessionAudioEncodeCreate

```
public void onSessionAudioEncodeCreate(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionAudioEncode sessionAudioEncode)
```

Called when audio encoder session is created.

Parameters:
liveStreamTranscoder - live stream transcoder
sessionAudioEncode - audio session

onSessionDataEncodeCreate

```
public void onSessionDataEncodeCreate(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionDataEncode sessionDataEncode)
```

Called when data encoder session is created.

Parameters:
liveStreamTranscoder - live stream transcoder
sessionDataEncode - data session

onSessionVideoEncodeInit

```
public void onSessionVideoEncodeInit(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionVideoEncode sessionVideoEncode)
```

Called after video session is initialized.

Parameters:
liveStreamTranscoder - live stream transcoder
sessionVideoEncode - video session

onSessionAudioEncodeInit

```
public void onSessionAudioEncodeInit(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionAudioEncode sessionAudioEncode)
```

Called after audio session is initialized.

Parameters:
      `liveStreamTranscoder` - live stream transcoder
      `sessionAudioEncode` - audio session

onSessionDataEncodeInit

```
public void onSessionDataEncodeInit(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionDataEncode sessionDataEncode)
```

Called after data session is initialized.

Parameters:
      `liveStreamTranscoder` - live stream transcoder
      `sessionDataEncode` - data session

onSessionVideoEncodeSetup

```
public void onSessionVideoEncodeSetup(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionVideoEncode sessionVideoEncode)
```

Called after native video encoder is created and initialized.

Parameters:
      `liveStreamTranscoder` - live stream transcoder
      `sessionVideoEncode` - video session

onSessionAudioEncodeSetup

```
public void onSessionAudioEncodeSetup(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionAudioEncode sessionAudioEncode)
```

Called after native audio encoder is created and initialized.

Parameters:
      `liveStreamTranscoder` - live stream transcoder
      `sessionAudioEncode` - audio session

onSessionVideoEncodeCodecInfo

```
public void onSessionVideoEncodeCodecInfo(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionVideoEncode sessionVideoEncode,
        com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)
```

Called when video encoding information is available.

Parameters:
      `liveStreamTranscoder` - live stream transcoder
      `sessionVideoEncode` - video session
      `codecInfoVideo` - encoding info

onSessionAudioEncodeCodecInfo

```
public void onSessionAudioEncodeCodecInfo(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderSessionAudioEncode sessionAudioEncode,
        com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio)
```

Called when audio encoding information is available.

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Parameters:

> liveStreamTranscoder - live stream transcoder
> sessionAudioEncode - audio session
> codecInfoAudio - encoding info

onSessionVideoDecodeCodecInfo

```
public void onSessionVideoDecodeCodecInfo(LiveStreamTranscoder liveStreamTranscoder,
        com.wowza.wms.media.model.MediaCodecInfoVideo codecInfoVideo)
```

Called when video decoding information is available.

Parameters:

> liveStreamTranscoder - live stream transcoder
> codecInfoVideo - video info

onSessionAudioDecodeCodecInfo

```
public void onSessionAudioDecodeCodecInfo(LiveStreamTranscoder liveStreamTranscoder,
        com.wowza.wms.media.model.MediaCodecInfoAudio codecInfoAudio)
```

Called when audio decoding information is available.

Parameters:

> liveStreamTranscoder - live stream transcoder
> codecInfoAudio - audio info

onRegisterStreamNameGroup

```
public void onRegisterStreamNameGroup(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderStreamNameGroup streamNameGroup)
```

Called after a stream name group is resolved and registered with MediaStreamMap

Parameters:

> liveStreamTranscoder - live stream transcoder
> streamNameGroup - stream name group

onUnregisterStreamNameGroup

```
public void onUnregisterStreamNameGroup(LiveStreamTranscoder liveStreamTranscoder,
        TranscoderStreamNameGroup streamNameGroup)
```

Called after a stream name group is unregistered with MediaStreamMap

Parameters:

> liveStreamTranscoder - live stream transcoder
> streamNameGroup - stream name group

onShutdownStart

```
public void onShutdownStart(LiveStreamTranscoder liveStreamTranscoder)
```

Called when the live stream transcoder starts to shutdown.

Parameters:

> liveStreamTranscoder - live stream transcoder

onShutdownStop

public void **onShutdownStop**(LiveStreamTranscoder liveStreamTranscoder)

Called when the live stream transcoder is shutdown.

Parameters:

liveStreamTranscoder - live stream transcoder

onResetStream

public void **onResetStream**(LiveStreamTranscoder liveStreamTranscoder)

Called when the stream feeding the live stream transcoder switches.

Parameters:

liveStreamTranscoder - live stream transcoder

com.wowza.wms.transcoder.model
Interface ITranscoderFrameGrabProvider

public interface **ITranscoderFrameGrabProvider**
extends

ITranscoderFrameGrabProvider: interface used to grab frames froom the live stream transcoder.

Method Summary

java.util.List	getAndClearPendingFrameGrabs() Returns a list of all grab frame requests that are pending and clears the pending list.
void	grabFrame(ITranscoderFrameGrabResult grabResult) Call to grab a frame.
void	grabFrame(ITranscoderFrameGrabResult grabResult, int width, int height) Call to grab a frame.

Methods

grabFrame

public void **grabFrame**(ITranscoderFrameGrabResult grabResult)

Call to grab a frame. The size of the frame will be the full size of the video frame.

Parameters:
grabResult - the class that will be called back when frame is available

grabFrame

public void **grabFrame**(ITranscoderFrameGrabResult grabResult,
        int width,
        int height)

Call to grab a frame. The size of the frame is controled by width and height.

Parameters:
grabResult - the class that will be called back when frame is available
width - frame width
height - frame height

getAndClearPendingFrameGrabs

public java.util.List **getAndClearPendingFrameGrabs**()

Returns a list of all grab frame requests that are pending and clears the pending list.

Returns:
list of pendinig grab frames

com.wowza.wms.transcoder.model
Interface ITranscoderFrameGrabResult

public interface **ITranscoderFrameGrabResult**
extends

ITranscoderFrameGrabResult: Implement this interface when using frame grabber interface to grab transcoder video frames.

Method Summary

void	**onGrabFrame**(TranscoderNativeVideoFrame nativeFrame) Trigger when frame is available.

Methods

onGrabFrame

public void **onGrabFrame**(TranscoderNativeVideoFrame nativeFrame)

Trigger when frame is available.

Parameters:
> nativeFrame - native video frame.

com.wowza.wms.transcoder.model
Interface ITranscoderOverlayImages

public interface **ITranscoderOverlayImages**
extends

Method Summary

void	[addOverlayImage](int index, TranscoderVideoOverlayFrame overlay)
java.util.Map	[getOverlayImages]()

Methods

addOverlayImage

```
public void addOverlayImage(int index,
        TranscoderVideoOverlayFrame overlay)
```

getOverlayImages

```
public java.util.Map getOverlayImages()
```

com.wowza.wms.transcoder.model
Interface ITranscoderOverlayProvider

public interface **ITranscoderOverlayProvider**
extends

ITranscoderOverlayProvider: interface to add and remove video overlays.

Method Summary

void	[addOverlay](int index, TranscoderVideoOverlayFrame overlay) Add an overlay to a video stream.
void	[clearOverlay](int index) Clear video overlay
java.util.Map	[getAndClearPendingOverlays]() Get a list of pending overlay requests and clear the pending overlay queue.
boolean	[isOverlayAvailable]() Returns true if there is a pending overlay request.

Methods

addOverlay

public void **addOverlay**(int index,
        TranscoderVideoOverlayFrame overlay)

Add an overlay to a video stream.

Parameters:
index - over lay index (zero is bottom in z-order)
overlay - overlay object

clearOverlay

public void **clearOverlay**(int index)

Clear video overlay

Parameters:
index - over lay index (zero is bottom in z-order)

isOverlayAvailable

public boolean **isOverlayAvailable**()

Returns true if there is a pending overlay request.

Returns:
true if there is a pending overlay request

getAndClearPendingOverlays

`public java.util.Map` **`getAndClearPendingOverlays`**`()`

Get a list of pending overlay requests and clear the pending overlay queue.

Returns:

list of pending overlay requests

getAndClearPendingOverlays

`public java.util.Map` **`getAndClearPendingOverlays`**`()`

com.wowza.wms.transcoder.model
Interface ITranscoderVideoDecoderNotify

public interface **ITranscoderVideoDecoderNotify**
extends

Method Summary

void	onAfterDecodeFrame(TranscoderSessionVideo sessionVideo, TranscoderStreamSourceVideo sourceVideo, long frameCount)
void	onAfterScaleFrame(TranscoderSessionVideo sessionVideo, TranscoderStreamSourceVideo sourceVideo, long frameCount)
void	onBeforeDecodeFrame(TranscoderSessionVideo sessionVideo, TranscoderStreamSourceVideo sourceVideo, long frameCount)
void	onBeforeScaleFrame(TranscoderSessionVideo sessionVideo, TranscoderStreamSourceVideo sourceVideo, long frameCount)

Methods

onBeforeDecodeFrame

```
public void onBeforeDecodeFrame(TranscoderSessionVideo sessionVideo,
        TranscoderStreamSourceVideo sourceVideo,
        long frameCount)
```

onAfterDecodeFrame

```
public void onAfterDecodeFrame(TranscoderSessionVideo sessionVideo,
        TranscoderStreamSourceVideo sourceVideo,
        long frameCount)
```

onBeforeScaleFrame

```
public void onBeforeScaleFrame(TranscoderSessionVideo sessionVideo,
        TranscoderStreamSourceVideo sourceVideo,
        long frameCount)
```

onAfterScaleFrame

```
public void onAfterScaleFrame(TranscoderSessionVideo sessionVideo,
        TranscoderStreamSourceVideo sourceVideo,
        long frameCount)
```

(continued from last page)

com.wowza.wms.transcoder.model
Interface ITranscoderVideoEncoderNotify

public interface **ITranscoderVideoEncoderNotify**
extends

Method Summary

void	onAfterEncodeFrame(TranscoderSessionVideoEncode sessionVideoEncode, TranscoderStreamDestinationVideo destinationVideo, long frameCount)
void	onBeforeEncodeFrame(TranscoderSessionVideoEncode sessionVideoEncode, TranscoderStreamDestinationVideo destinationVideo, long frameCount)

Methods

onBeforeEncodeFrame

```
public void onBeforeEncodeFrame(TranscoderSessionVideoEncode sessionVideoEncode,
        TranscoderStreamDestinationVideo destinationVideo,
        long frameCount)
```

onAfterEncodeFrame

```
public void onAfterEncodeFrame(TranscoderSessionVideoEncode sessionVideoEncode,
        TranscoderStreamDestinationVideo destinationVideo,
        long frameCount)
```

com.wowza.wms.transcoder.model
Interface ITranscoderWorker

public interface **ITranscoderWorker**
extends

For internal use.

Method Summary

long	[getFrameCount](){#}()
boolean	[isEncoderInUse]()()
boolean	[isRunning]()() Returns true if transcoder worker is running (internal use)
void	[setFrameCount](long frameCount)

Methods

isRunning

public boolean **isRunning**()

> Returns true if transcoder worker is running (internal use)

> **Returns:**
>   true if transcoder worker is running (internal use)

getFrameCount

public long **getFrameCount**()

setFrameCount

public void **setFrameCount**(long frameCount)

isEncoderInUse

public boolean **isEncoderInUse**()

com.wowza.wms.transcoder.model
Interface ITranscoderWorkerSorterSender

public interface **ITranscoderWorkerSorterSender**
extends

For internal use.

Method Summary

void	**addSorterPacket**(TranscoderPacketSorterHolder sorterHolder) For internal use.

Methods

addSorterPacket

public void **addSorterPacket**(TranscoderPacketSorterHolder sorterHolder)

For internal use.

Parameters:
sorterHolder - sorter holder

Package

com.wowza.wms.util

com.wowza.wms.util
Class RTPUtils

```
java.lang.Object
    │
    +-com.wowza.wms.util.RTPUtils
```

public class **RTPUtils**
extends Object

Constructor Summary

public	[RTPUtils](#)()

Method Summary

static double[]	[decodeRangeHeader](#)(String rangeStr) Decode RTP range header, Internal use.
static [RTPStream](#)	[decodeStreamInfo](#)([IApplicationInstance](#) appInstance, [RTPContext](#) context, String streamId, String streamInfo) Decode SDP info and create RTP stream
static [RTPStream](#)	[decodeStreamInfo](#)([IApplicationInstance](#) appInstance, RTPStreamContext rtpStreamContext, [RTPContext](#) context, String streamId, String streamInfo) Decode SDP info and create RTP stream
static [RTPStream](#)	[decodeStreamInfo](#)([RTPContext](#) context, String streamId, String streamInfo) Decode SDP info and create RTP stream
static byte[]	[formatH264CodecConfig](#)(byte[] sps, java.util.List ppss, byte[] profileLevel) Format codec config info, Internal use.
static byte[]	[formatH264CodecConfigPacket](#)(byte[] sps, java.util.List ppss, byte[] profileLevel) Format codec config info, Internal use.
static void	[loadConfigFile](#)([RTPContext](#) rtpContext, String fileURL) Load config file, Internal use.
static [RTPPushPublishSession](#)	[startRTPPull](#)([IApplicationInstance](#) appInstance, String streamName, boolean streamPacketizer, String ipAddress, int streamPort) Start pushing an RTP stream
static [RTPPushPublishSession](#)	[startRTPPull](#)([IApplicationInstance](#) appInstance, String streamName, boolean streamPacketizer, String ipAddress, int streamPort, boolean isRTPWrapped) Start pushing an RTP stream
static [RTPPushPublishSession](#)	[startRTPPull](#)([IApplicationInstance](#) appInstance, String streamName, boolean streamPacketizer, String ipAddress, int audioPort, int videoPort) Start pushing an RTP stream

static **RTPPushPublishSession**	**startRTPPull**(**IApplicationInstance** appInstance, String streamName, boolean streamPacketizer, String ipAddress, int audioPort, int videoPort, boolean isRTPWrapped) Start pushing an RTP stream
static **RTPPushPublishSession**	**startRTPPull**(**IApplicationInstance** appInstance, String streamName, **RTPDestination** rtpDestination) Start pushing an RTP stream
static void	**stopRTPPull**(**RTPPushPublishSession** rtpPushPublishSession) Stop pushing an RTP stream
static String	**updateSDPDestination**(**RTPDestination** rtpDestination, String sdpData) Update SDP data information with RTP destination information
static void	**writeCodecConfig**(RTPTrack rtpTrack, int codecId, long adjTimecode, byte[] codecConfig)
static void	**writeCodecConfig**(RTPTrack rtpTrack, long adjTimecode, byte[] codecConfig) Write codec config information, Internal use.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

RTPUtils

public **RTPUtils**()

Methods

updateSDPDestination

public static String **updateSDPDestination**(**RTPDestination** rtpDestination, String sdpData)

Update SDP data information with RTP destination information

Parameters:
rtpDestination - RTP destination
sdpData - SDP data

Returns:
modified SDP data

decodeRangeHeader

public static double[] **decodeRangeHeader**(String rangeStr)

Decode RTP range header, Internal use.

Parameters:
>   rangeStr

Returns:
>   range values

---

stopRTPPull

```
public static void stopRTPPull(RTPPushPublishSession rtpPushPublishSession)
```

>   Stop pushing an RTP stream

Parameters:
>   rtpPushPublishSession - RTP push session

---

startRTPPull

```
public static RTPPushPublishSession startRTPPull(IApplicationInstance appInstance,
        String streamName,
        boolean streamPacketizer,
        String ipAddress,
        int streamPort,
        boolean isRTPWrapped)
```

>   Start pushing an RTP stream

Parameters:
>   appInstance - application instance
>   streamName - stream name
>   streamPacketizer - stream packetizer
>   ipAddress - IP address
>   streamPort - stream port
>   isRTPWrapped - is RTP wrapped

Returns:
>   RTP push session

---

startRTPPull

```
public static RTPPushPublishSession startRTPPull(IApplicationInstance appInstance,
        String streamName,
        boolean streamPacketizer,
        String ipAddress,
        int streamPort)
```

>   Start pushing an RTP stream

Parameters:
>   appInstance - application instance
>   streamName - stream name
>   streamPacketizer - stream packetizer
>   ipAddress - IP address
>   streamPort - stream port

Returns:
>   RTP push session

---

startRTPPull

```
public static RTPPushPublishSession startRTPPull(IApplicationInstance appInstance,
        String streamName,
        boolean streamPacketizer,
        String ipAddress,
        int audioPort,
        int videoPort)
```

Start pushing an RTP stream

Parameters:

appInstance - application instance

streamName - stream name

streamPacketizer - stream packetizer

ipAddress - IP address

audioPort - audio port

videoPort - video port

Returns:

RTP push session

startRTPPull

```
public static RTPPushPublishSession startRTPPull(IApplicationInstance appInstance,
        String streamName,
        boolean streamPacketizer,
        String ipAddress,
        int audioPort,
        int videoPort,
        boolean isRTPWrapped)
```

Start pushing an RTP stream

Parameters:

appInstance - application instance

streamName - stream name

streamPacketizer - stream packetizer

ipAddress - IP address

audioPort - audio port

videoPort - video port

isRTPWrapped - is RTP wrapped

Returns:

RTP push session

startRTPPull

```
public static RTPPushPublishSession startRTPPull(IApplicationInstance appInstance,
        String streamName,
        RTPDestination rtpDestination)
```

Start pushing an RTP stream

Parameters:

appInstance - application instance

streamName - stream name

rtpDestination - RTP destination

Returns:

RTP push session

writeCodecConfig

```
public static void writeCodecConfig(RTPTrack rtpTrack,
        int codecId,
        long adjTimecode,
        byte[] codecConfig)
```

writeCodecConfig

```
public static void writeCodecConfig(RTPTrack rtpTrack,
        long adjTimecode,
        byte[] codecConfig)
```

Write codec config information, Internal use.

Parameters:
rtpTrack - RTP track
adjTimecode - timecode (milliseconds)
codecConfig - codec config

loadConfigFile

```
public static void loadConfigFile(RTPContext rtpContext,
        String fileURL)
```

Load config file, Internal use.

Parameters:
rtpContext
fileURL

decodeStreamInfo

```
public static RTPStream decodeStreamInfo(RTPContext context,
        String streamId,
        String streamInfo)
```

Decode SDP info and create RTP stream

Parameters:
context - RTP context
streamId - stream id
streamInfo - SDP data

Returns:
RTP stream

decodeStreamInfo

```
public static RTPStream decodeStreamInfo(IApplicationInstance appInstance,
        RTPContext context,
        String streamId,
        String streamInfo)
```

Decode SDP info and create RTP stream

Parameters:

      `appInstance` - app instance

      `context` - rtp context

      `streamId` - stream id

      `streamInfo` - stream info (SDP data)

Returns:

      rtp stream

---

decodeStreamInfo

```
public static RTPStream decodeStreamInfo(IApplicationInstance appInstance,
        RTPStreamContext rtpStreamContext,
        RTPContext context,
        String streamId,
        String streamInfo)
```

Decode SDP info and create RTP stream

Parameters:

      `appInstance` - app instance

      `rtpStreamContext` - rtp stream context

      `context` - rtp context

      `streamId` - stream id

      `streamInfo` - stream info (SDP data)

Returns:

      rtp stream

---

formatH264CodecConfigPacket

```
public static byte[] formatH264CodecConfigPacket(byte[] sps,
        java.util.List ppss,
        byte[] profileLevel)
```

Format codec config info, Internal use.

Parameters:

      `sps`

      `ppss`

      `profileLevel`

Returns:

      bytes

---

formatH264CodecConfig

```
public static byte[] formatH264CodecConfig(byte[] sps,
        java.util.List ppss,
        byte[] profileLevel)
```

Format codec config info, Internal use.

Parameters:

      `sps`

      `ppss`

      `profileLevel`

Returns:

      bytes

com.wowza.wms.util
Class StreamUtils

```
java.lang.Object
    │
    +-com.wowza.wms.util.StreamUtils
```

public class **StreamUtils**
extends Object

Constructor Summary

public	**StreamUtils**()

Method Summary

static int	**directOutput**(byte[] dataBuffer, int[] headerValues, boolean isAbsTimecode, int src, java.io.OutputStream out, AMFObj wmsObj, byte[] workBuffer, int chunkSize) Direct output, Internal use.
static double	**getStreamBitrate**(IApplicationInstance appInstance, String streamName)
static double	**getStreamBitrate**(IMediaStream stream) Get the approximate bitrate of a media file in bits/per-second.
static double	**getStreamLength**(IApplicationInstance appInstance, String streamName) Get the duration of a media file in seconds.
static double	**getStreamLength**(IMediaStream stream) Get the duration of a media file in seconds.
static void	**loadConfigFile**(StreamList streamDefs, String fileURL) Load Strreams.xml, Internal use.
static int	**packetOutput**(java.io.OutputStream out, IMediaStream stream, AMFPacket packet, long timecode, AMFObj wmsObj, byte[] workBuffer, int chunkSize) Packet output.
static int	**packetOutput**(java.io.OutputStream out, IMediaStream stream, AMFPacket packet, long timecode, AMFObj wmsObj, byte[] workBuffer, int chunkSize, boolean referenceWrite) Packet output.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

StreamUtils

```
public StreamUtils()
```

Methods

getStreamLength

```
public static double getStreamLength(IMediaStream stream)
```

Get the duration of a media file in seconds. This will work correctly with all RandomAccessReaders and caching technology

Parameters:
stream - stream

Returns:
duration in seconds

getStreamBitrate

```
public static double getStreamBitrate(IMediaStream stream)
```

Get the approximate bitrate of a media file in bits/per-second. This will work correctly with all RandomAccessReaders and caching technology.

Parameters:
stream - stream

Returns:
bitrate in bits/per-second

getStreamLength

```
public static double getStreamLength(IApplicationInstance appInstance,
        String streamName)
```

Get the duration of a media file in seconds. This will work correctly with all RandomAccessReaders and caching technology

Parameters:
appInstance - application instance
streamName - stream name

Returns:
duration in seconds

getStreamBitrate

```
public static double getStreamBitrate(IApplicationInstance appInstance,
        String streamName)
```

directOutput

```
public static int directOutput(byte[] dataBuffer,
        int[] headerValues,
        boolean isAbsTimecode,
        int src,
        java.io.OutputStream out,
        AMFObj wmsObj,
        byte[] workBuffer,
        int chunkSize)
```

Direct output, Internal use.

Parameters:
dataBuffer

headerValues

isAbsTimecode

src

out

wmsObj

workBuffer

chunkSize

Returns:
c

packetOutput

```
public static int packetOutput(java.io.OutputStream out,
        IMediaStream stream,
        AMFPacket packet,
        long timecode,
        AMFObj wmsObj,
        byte[] workBuffer,
        int chunkSize)
```

Packet output. Internal use.

Parameters:
out

stream

packet

timecode

wmsObj

workBuffer

chunkSize

Returns:
bytes

packetOutput

```
public static int packetOutput(java.io.OutputStream out,
        IMediaStream stream,
        AMFPacket packet,
        long timecode,
        AMFObj wmsObj,
        byte[] workBuffer,
        int chunkSize,
        boolean referenceWrite)
```

Packet output. Internal use.

Parameters:
```
out
stream
packet
timecode
wmsObj
workBuffer
chunkSize
referenceWrite
```

Returns:
bytes

loadConfigFile

```
public static void loadConfigFile(StreamList streamDefs,
        String fileURL)
```

Load Strreams.xml, Internal use.

Parameters:
```
streamDefs
fileURL
```

Package
com.wowza.wms.util.crontab

com.wowza.wms.util.crontab
Class CrontabEvent

```
java.lang.Object
    |
    +-com.wowza.wms.util.crontab.CrontabEvent
```

All Implemented Interfaces:
>Comparable

public class **CrontabEvent**
extends Object
implements Comparable

Holds an event's schedule and is responsible for calculating event activation.

Field Summary

public static final	[DAY](#)	
	Value: **2**	
public static	[DT_FORMAT](#)	
public static final	[HOUR](#)	
	Value: **1**	
public static final	[MINUTE](#)	
	Value: **0**	
public static final	[MONTH](#)	
	Value: **3**	
public static final	[WEEKDAY](#)	
	Value: **5**	
public static final	[YEAR](#)	
	Value: **4**	

Constructor Summary

public	[CrontabEvent](#)()

Method Summary

int	[compareTo](#)([CrontabEvent](#) o) Allows CronEvents to be sorted via Java Sort Class.
void	[dump](#)() dumps this event's information to the console

`ICrontabEventHandler`	`getEventHandler`()
`String`	`getEventStr`()
`CrontabField`	`getField`(int whichField)
`org.joda.time.Mutable DateTime`	`getLastRun`()
`org.joda.time.Mutable DateTime`	`getNextRun`()
`String`	`getTarget`()
`boolean`	`isDebugOn`()
`boolean`	`isExpired`() Indicates whether or not all execution dates for this event occur in the past
`boolean`	`isMatch`(org.joda.time.MutableDateTime date) Determines if this event will fire on the date passed in
`void`	`setDebug`(boolean debug) turns on/off debug logging
`void`	`setEventHandler`(`ICrontabEventHandler` handler)
`void`	`setEventStr`(String entry)
`void`	`setField`(int whichField, CrontabField field)
`void`	`setLastRun`() Sets the last run time to now
`void`	`setLastRun`(org.joda.time.MutableDateTime date)
`void`	`setTarget`(String target)
`boolean`	`start`() Starts this events timer
`void`	`stop`() stops this events timer

Methods inherited from class `java.lang.Object`
`clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait`

Methods inherited from interface `java.lang.Comparable`
`compareTo`

Fields

DT_FORMAT

`public static org.joda.time.format.DateTimeFormatter` **`DT_FORMAT`**

MINUTE

`public static final int` **`MINUTE`**

Constant value: **0**

HOUR

`public static final int` **`HOUR`**

Constant value: **1**

DAY

`public static final int` **`DAY`**

Constant value: **2**

MONTH

`public static final int` **`MONTH`**

Constant value: **3**

YEAR

`public static final int` **`YEAR`**

Constant value: **4**

WEEKDAY

`public static final int` **`WEEKDAY`**

Constant value: **5**

Constructors

CrontabEvent

`public` **`CrontabEvent`**`()`

Methods

start

```
public boolean start()
```

> Starts this events timer
>
> ### Returns:
> > true - if timer is started, else false

stop

```
public void stop()
```

> stops this events timer

isMatch

```
public boolean isMatch(org.joda.time.MutableDateTime date)
```

> Determines if this event will fire on the date passed in
>
> ### Parameters:
> > date
>
> ### Returns:
> > boolean

setField

```
public void setField(int whichField,
        CrontabField field)
```

getField

```
public CrontabField getField(int whichField)
```

setTarget

```
public void setTarget(String target)
```

getTarget

```
public String getTarget()
```

setEventStr

```
public void setEventStr(String entry)
```

getEventStr

public String **getEventStr**()

getNextRun

public org.joda.time.MutableDateTime **getNextRun**()

getLastRun

public org.joda.time.MutableDateTime **getLastRun**()

setLastRun

public void **setLastRun**(org.joda.time.MutableDateTime date)

setLastRun

public void **setLastRun**()

> Sets the last run time to now

setDebug

public void **setDebug**(boolean debug)

> turns on/off debug logging

> **Parameters:**
>> debug - - true/false

isDebugOn

public boolean **isDebugOn**()

setEventHandler

public void **setEventHandler**(ICrontabEventHandler handler)

getEventHandler

public ICrontabEventHandler **getEventHandler**()

isExpired

`public boolean` **`isExpired`**`()`

Indicates whether or not all execution dates for this event occur in the past

Returns:
true/false

compareTo

`public int` **`compareTo`**`(`CrontabEvent` o)`

Allows CronEvents to be sorted via Java Sort Class. Compares nextRun dates of two CronEvents where earlier events are considered "less" than later events, (e.g. today < tomorrow) and nulls are "greater" than events with dates (e.g. tomorrow < null) This provides the logic to sort events by soonest to latest with nulls at the end

Parameters:
o - - CronEvent to compare this event to

Returns:
-1,0,1 - if equal, if this event is greater than

dump

`public void` **`dump`**`()`

dumps this event's information to the console

isExpired

`public boolean` **`isExpired`**`()`

com.wowza.wms.util.crontab
Interface ICrontabEventHandler

All Known Implementing Classes:
LiveStreamRecorderBase

---

public interface **ICrontabEventHandler**
extends

EventHandler functions are called from a Java timer task context and therefore should execute very quickly so as not to delay execution of subsequent timers. If there is heavy processing which needs to take place, the implementation for these functions should spawn a thread to do it.

Method Summary

void	onCronEvent(CrontabEvent event)

Methods

onCronEvent

public void **onCronEvent**(CrontabEvent event)

Package
com.wowza.wms.vhost

com.wowza.wms.vhost
Class HostPort

```
java.lang.Object
    │
    +-com.wowza.wms.vhost.HostPort
```

public class **HostPort**
extends Object

HostPort: data object that describes a socket connection. The address can be defined by ipAddress or by domainName. It can also contain a reference to an SSLFactory class that can be used to create a secure connection to the server.

Constructor Summary

public	**HostPort**() Create an empty HostPort object

Method Summary

void	**addHttpProvider**(IHTTPProvider httpProvider)
void	**addHttpProvider**(IHTTPProvider2 httpProvider)
void	**addHTTPStreamerAdapterID**(String ID)
void	**configureSocketAcceptor**(org.apache.mina.transport.socket.nio.SocketAcceptorConfig socketConfig) Configure a socketAcceport
java.net.InetAddress	**getAddress**() Get the ipAddress as an InetAddress object
String	**getAddressRawStr**()
String	**getAddressStr**() Get a String representation of the address
HostPortConfig	**getConfiguation**() Get the socket configuration
java.util.List	**getHttpProviders**()
java.util.List	**getHTTPStreamerAdapterIDs**()
int	**getPort**() Get port
int	**getProcessorCount**() Get the number of threads to use to service this incoming port

HostPortSSLConfig	[getSSLConfig](#)()
String	[getSslFactoryClass](#)() Get full class name or SSLFactory class
boolean	[isSuspended](#)()
void	[setDomainName](#)(String domainName) Set domainName.
void	[setIpAddress](#)(String ipAddress) Set ipAddress for object.
void	[setPort](#)(int port) Set port
void	[setProcessorCount](#)(int processorCount) Set the number of threads to use to service this incoming port
void	[setSSLConfig](#)(HostPortSSLConfig sslConfig)
void	[setSslFactoryClass](#)(String sslFactoryClass) Set full class name of SSLFactory class
void	[setSuspended](#)(boolean isSuspended)
String	[toString](#)() Return object as formatted string
String	[toString](#)(boolean mBeanSafe) Return object as formatted string

Methods inherited from class `java.lang.Object`

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

HostPort

public **HostPort**()

Create an empty HostPort object

Methods

setDomainName

public void **setDomainName**(String domainName)

Set domainName. A domainName of * defines a local connection.

Parameters:
domainName - domainName like www.mycompany.com or * for local

getAddress

`public java.net.InetAddress `**`getAddress`**`()`

Get the ipAddress as an InetAddress object

Returns:
ipAddress as an InetAddress object. At this point the domainName (if specified) will be resolved.

getAddressStr

`public String `**`getAddressStr`**`()`

Get a String representation of the address

Returns:
String representation of the address/domainName. If * it will return [any]

getAddressRawStr

`public String `**`getAddressRawStr`**`()`

setIpAddress

`public void `**`setIpAddress`**`(String ipAddress)`

Set ipAddress for object. A ipAddress of * defines a local connection.

Parameters:
ipAddress - ipAddress like 127.0.0.1 or * for local

getPort

`public int `**`getPort`**`()`

Get port

Returns:
port

setPort

`public void `**`setPort`**`(int port)`

Set port

Parameters:
port - port

getSslFactoryClass

`public String `**`getSslFactoryClass`**`()`

Get full class name or SSLFactory class

Returns:
> full class name or SSLFactory or "" if not specified

---

setSslFactoryClass

`public void` **`setSslFactoryClass`**`(String sslFactoryClass)`

> Set full class name of SSLFactory class

> **Parameters:**
> > `sslFactoryClass` - full class name or SSLFactory or "" if not specified

---

getProcessorCount

`public int` **`getProcessorCount`**`()`

> Get the number of threads to use to service this incoming port

> **Returns:**
> > number of processor threads

---

setProcessorCount

`public void` **`setProcessorCount`**`(int processorCount)`

> Set the number of threads to use to service this incoming port

> **Parameters:**
> > `processorCount` - number of processor threads

---

toString

`public String` **`toString`**`(boolean mBeanSafe)`

> Return object as formatted string

> **Parameters:**
> > `mBeanSafe` - make the name safe for JMX management interface

> **Returns:**
> > formmatted string

---

toString

`public String` **`toString`**`()`

> Return object as formatted string

> **Returns:**
> > formmatted string

---

getConfiguation

`public HostPortConfig` **`getConfiguation`**`()`

> Get the socket configuration

> **Returns:**

socket configuration

configureSocketAcceptor

```
public void
configureSocketAcceptor(org.apache.mina.transport.socket.nio.SocketAcceptorConfig
socketConfig)
```

Configure a socketAcceport

Parameters:

`socketConfig` - socket acceptor

getHttpProviders

```
public java.util.List getHttpProviders()
```

addHttpProvider

```
public void addHttpProvider(IHTTPProvider httpProvider)
```

addHttpProvider

```
public void addHttpProvider(IHTTPProvider2 httpProvider)
```

isSuspended

```
public boolean isSuspended()
```

setSuspended

```
public void setSuspended(boolean isSuspended)
```

getHTTPStreamerAdapterIDs

```
public java.util.List getHTTPStreamerAdapterIDs()
```

addHTTPStreamerAdapterID

```
public void addHTTPStreamerAdapterID(String ID)
```

getSSLConfig

```
public HostPortSSLConfig getSSLConfig()
```

setSSLConfig

public void **setSSLConfig**(HostPortSSLConfig sslConfig)

com.wowza.wms.vhost
Class HostPortList

```
java.lang.Object
    │
    +-com.wowza.wms.vhost.HostPortList
```

public class **HostPortList**
extends Object

HostPortList: data object that contains a collection of HostPort objects.

Constructor Summary

public	[HostPortList](#)() Create empty HostPortList

Method Summary

void	[add](#)([HostPort](#) hostPort) Add HostPort object
[HostPort](#)	[get](#)(int index) Get HostPort object at index, null if out of bounds
int	[size](#)() Get number of HostPort objects

Methods inherited from class java.lang.Object

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

HostPortList

public **HostPortList**()

Create empty HostPortList

Methods

add

public void **add**([HostPort](#) hostPort)

Add HostPort object

Parameters:
hostPort

size

```
public int size()
```

Get number of HostPort objects

Returns:
number of HostPort objects

get

```
public HostPort get(int index)
```

Get HostPort object at index, null if out of bounds

Parameters:
index - index

Returns:
HostPort object at index, null if out of bounds

```
public int size()
```

com.wowza.wms.vhost
Interface IAcceptorNotify

public interface **IAcceptorNotify**
extends

IAcceptorNotify: listener interface used by IVHost addAcceptorListener

Method Summary

void	**onAcceptorCreate**(HostPort hostPort, java.util.Map acceptorMap) Triggered when a new acceptor is created
void	**onAcceptorDestroy**(HostPort hostPort, java.util.Map acceptorMap) Triggered when a new acceptor is deleted

Methods

onAcceptorCreate

```
public void onAcceptorCreate(HostPort hostPort,
        java.util.Map acceptorMap)
```

Triggered when a new acceptor is created

Parameters:
hostPort - HostPort object
acceptorMap - Map of acceptors

onAcceptorDestroy

```
public void onAcceptorDestroy(HostPort hostPort,
        java.util.Map acceptorMap)
```

Triggered when a new acceptor is deleted

Parameters:
hostPort - HostPort object
acceptorMap - Map of acceptors

com.wowza.wms.vhost
Interface IVHost

public interface **IVHost**
extends

IVHost: public interface to VHost object.

Field Summary

public static final	**ACCEPTORS_ACCEPTOR** Acceptor types: acceptor Value: **acceptor**
public static final	**ACCEPTORS_HANDLERADAPTER** Acceptor types: handler Value: **handlerAdapter**
public static final	**CODEC_AUDIO_AAC** Value: **10**
public static final	**CODEC_AUDIO_AC3** Value: **1**
public static final	**CODEC_AUDIO_G711_ALAW** Value: **7**
public static final	**CODEC_AUDIO_G711_MULAW** Value: **8**
public static final	**CODEC_AUDIO_MP3** Value: **2**
public static final	**CODEC_AUDIO_MP3_8** Value: **15**
public static final	**CODEC_AUDIO_NELLYMOSER** Value: **6**
public static final	**CODEC_AUDIO_NELLYMOSER_16MONO** Value: **4**
public static final	**CODEC_AUDIO_NELLYMOSER_8MONO** Value: **5**
public static final	**CODEC_AUDIO_PCM_BE** Value: **0**

public static final	CODEC_AUDIO_PCM_LE
	Value: **3**
public static final	CODEC_AUDIO_PCM_SWF
	Value: **1**
public static final	CODEC_AUDIO_RESERVED
	Value: **9**
public static final	CODEC_AUDIO_SPEEX
	Value: **11**
public static final	CODEC_AUDIO_UNKNOWN
	Value: **-1**
public static final	CODEC_AUDIO_VORBIS
	Value: **9**
public static final	CODEC_STREAM_MP2T
	Value: **0**
public static final	CODEC_STREAM_UNKNOWN
	Value: **-1**
public static final	CODEC_VIDEO_H263
	Value: **9**
public static final	CODEC_VIDEO_H264
	Value: **7**
public static final	CODEC_VIDEO_MPEG2
	Value: **11**
public static final	CODEC_VIDEO_MPEG4
	Value: **10**
public static final	CODEC_VIDEO_SCREEN
	Value: **3**
public static final	CODEC_VIDEO_SCREEN2
	Value: **6**
public static final	CODEC_VIDEO_SPARK
	Value: **2**
public static final	CODEC_VIDEO_UNKNOWN
	Value: **-1**

public static final	**CODEC_VIDEO_VP6** Value: **4**	
public static final	**CODEC_VIDEO_VP6A** Value: **5**	
public static final	**CODEC_VIDEO_VP8** Value: **8**	
public static final	**CONTENTTYPE_ACKBANDWIDTH** AMF Content type: set acknowledge bandwidth size Value: **5**	
public static final	**CONTENTTYPE_AUDIO** AMF Content type: audio packet Value: **8**	
public static final	**CONTENTTYPE_BUFFERSIZE** AMF Content type: set buffer size Value: **4**	
public static final	**CONTENTTYPE_DATA** AMF Content type: data packet Value: **18**	
public static final	**CONTENTTYPE_DATA0** AMF Content type: data packet (AMF0) Value: **18**	
public static final	**CONTENTTYPE_DATA3** AMF Content type: data packet (AMF3) Value: **15**	
public static final	**CONTENTTYPE_FUNCTION** AMF Content type: function data (AMF0) Value: **20**	
public static final	**CONTENTTYPE_FUNCTION0** AMF Content type: function data (AMF0) Value: **20**	
public static final	**CONTENTTYPE_FUNCTION3** AMF Content type: function data (AMF3) Value: **17**	
public static final	**CONTENTTYPE_MEDIACHUNK** AMF Content type: media chunk Value: **22**	
public static final	**CONTENTTYPE_PLAYCALLBACK** AMF Content type: play callback Value: **127**	

`public static final`	CONTENTTYPE_SETBANDWIDTH	
	AMF Content type: set bandwidth size	
	Value: **6**	
`public static final`	CONTENTTYPE_SETCHUNKSIZE	
	AMF Content type: set packet chunk size	
	Value: **1**	
`public static final`	CONTENTTYPE_SHAREDOBJECTS	
	AMF Content type: shared object packet (AMF0)	
	Value: **19**	
`public static final`	CONTENTTYPE_SHAREDOBJECTS0	
	AMF Content type: shared object packet (AMF0)	
	Value: **19**	
`public static final`	CONTENTTYPE_SHAREDOBJECTS3	
	AMF Content type: shared object packet (AMF3)	
	Value: **16**	
`public static final`	CONTENTTYPE_UKNOWN	
	AMF Content type: unknown	
	Value: **0**	
`public static final`	CONTENTTYPE_VIDEO	
	AMF Content type: video packet	
	Value: **9**	
`public static final`	CONTENTTYPE_WATCHDOG	
	AMF Content type: watch dog	
	Value: **3**	
`public static final`	COUNTER_HTTPCUPERTINO	
	Value: **2**	
`public static final`	COUNTER_HTTPDVRCHUNKS	
	Value: **7**	
`public static final`	COUNTER_HTTPMPEGDASH	
	Value: **6**	
`public static final`	COUNTER_HTTPSANJOSE	
	Value: **4**	
`public static final`	COUNTER_HTTPSMOOTH	
	Value: **3**	
`public static final`	COUNTER_HTTPWEBM	
	Value: **5**	
`public static final`	COUNTER_RTMP	
	Value: **0**	

public static final	COUNTER_RTP	
	Value: **1**	
public static final	COUNTER_TOTAL	
	Value: **8**	
public static final	FILEFORMAT_FLV	
	Value: **1**	
public static final	FILEFORMAT_MP4	
	Value: **2**	
public static final	FILEFORMAT_UNKNOWN	
	Value: **-1**	
public static final	LICENSECOUNTER_DRM_BUYDRM_LIVE	
	Value: **9**	
public static final	LICENSECOUNTER_DRM_BUYDRM_VOD	
	Value: **10**	
public static final	LICENSECOUNTER_DRM_EZDRM_LIVE	
	Value: **4**	
public static final	LICENSECOUNTER_DRM_EZDRM_VOD	
	Value: **5**	
public static final	LICENSECOUNTER_DRM_VERIMATRIX_LIVE	
	Value: **6**	
public static final	LICENSECOUNTER_DRM_VERIMATRIX_VOD	
	Value: **7**	
public static final	LICENSECOUNTER_NDVR	
	Value: **3**	
public static final	LICENSECOUNTER_PUBLISHER	
	Value: **0**	
public static final	LICENSECOUNTER_PUBLISHERTRANSCODER	
	Value: **8**	
public static final	LICENSECOUNTER_TOTAL	
	Value: **20**	
public static final	LICENSECOUNTER_TRANSCODE_DECODE	
	Value: **1**	

public static final	LICENSECOUNTER_TRANSCODE_DECODECOUNTAUDIO	
	Value: **14**	
public static final	LICENSECOUNTER_TRANSCODE_DECODECOUNTAUDIOVIDEO	
	Value: **16**	
public static final	LICENSECOUNTER_TRANSCODE_DECODECOUNTVIDEO	
	Value: **15**	
public static final	LICENSECOUNTER_TRANSCODE_DECODEPOLLING	
	Value: **11**	
public static final	LICENSECOUNTER_TRANSCODE_ENCODE	
	Value: **2**	
public static final	LICENSECOUNTER_TRANSCODE_ENCODECOUNTAUDIO	
	Value: **17**	
public static final	LICENSECOUNTER_TRANSCODE_ENCODECOUNTAUDIOVIDEO	
	Value: **19**	
public static final	LICENSECOUNTER_TRANSCODE_ENCODECOUNTVIDEO	
	Value: **18**	
public static final	LICENSECOUNTER_TRANSCODE_ENCODEPOLLING	
	Value: **12**	
public static final	LICENSECOUNTER_TRANSCODE_STREAMNAMES	
	Value: **13**	
public static final	VHOST_DEFAULT	
	Value: **_defaultVHost_**	

Method Summary

void	addAcceptorListener(IAcceptorNotify acceptorListener) Add acceptor listener.
void	addApplicationListener(IApplicationNotify applicationListener) Add application listener.
void	addIdleWorkerListener(IIdleWorkerNotify idleWorkerListener) Add idleWorker listener.
void	addStartupStream(StartupStream startupStream) Add a stream to the list of streams to start and virtual host startup
boolean	applicationExists(String name) Return true if an application folder exists for this application name

void	**closeHostPort**(HostPort hostPort, boolean isSuspend) Close an individual HostPort
boolean	**createApplication**(String sName, String sStreamType, String sContentLoc) Method to create a new application
IApplication	**getApplication**(String applicationName) Get application by name.
java.util.List	**getApplicationFolderNames**() Get a list of application folder names
edu.emory.mathcs.back port.java.util.concur rent.locks.WMSReadWri teLock	**getApplicationLock**() Get the object used in synchronized statements to lock and application.
java.util.List	**getApplicationNames**() Get a list of application names
int	**getApplicationTimeout**() Get application time out (milliseconds).
AuthenticationList	**getAuthenticationList**() Get the list of available authentication methods
IClient	**getClient**(int clientId) Get client by client id.
IClient	**getClient**(int clientId, boolean create) Get client by client id and create if does not exist.
int	**getClientCount**() Get number of clients connected to this vHost.
int	**getClientIdleFrequency**() Get default client idle frequency (milliseconds)
int	**getClientTimeout**() Get client timeout.
ConnectionCounter	**getConnectionCounter**() Get vHost connection counter.
ConnectionCounterSimp le	**getConnectionCounter**(int counterIndex) Get vHost connection counter for a specific technology (see IVHost.COUNTER_*)
int	**getConnectionLimit**() Get vHost connection limit.
int	**getCoreHandlerPoolSize**() Get the handler core thread pool size.
int	**getCoreTransportPoolSize**() Get the transport core thread pool size.
String	**getDateStarted**() Get date and time the server was started.

DvrRecorderList	**getDvrRecorderList**() Get the DvrRecorderList
DvrStoreList	**getDvrStoreList**() Get the list of DVR Stores
java.util.Properties	**getDynamicLogProperties**() Get the dynamic log properties defined at the vhost level in conf/log4j.properties
int	**getFileIOPoolSize**() Get the default file io pool size.
ThreadPool	**getHandlerThreadPool**() Get the VHost handler thread pool.
String	**getHomePath**() Get vHost configuration path.
HostPortList	**getHostPortsList**() Get list of host port definitions for vHost.
IHTTPStreamerAdapter	**getHTTPStreamerAdapter**(String ID) Get an HTTPStreamerAdapter by ID
java.util.List	**getHTTPStreamerAdapterIDs**() Get a list of HTTPStreamerAdapter IDs
HTTPStreamerContext	**getHTTPStreamerContext**() Get the HTTPStreamer (Cupertino Streaming and Silverlight Smooth Streaming) host context
HTTPStreamerList	**getHTTPStreamerList**() Get the list of HTTPStreamers
int	**getIdleCheckFrequency**() Get idle check frequency (milliseconds)
int	**getIdleMinimumWaitTime**() Get the minimum time (milliseconds) the idle worker thread will sleep before generating idle events
int	**getIdleWorkerCount**() Get number of threads used to generate idle events
IdleWorkersUtil	**getIdleWorkers**() Get the idle worker utility
IOPerformanceCounter	**getIoPerformanceCounter**() Get vHost IO performance counter.
IOPerformanceCounter	**getIoPerformanceCounter**(int counterIndex) Get vHost IO performance counter for a specific technology (see IVHost.COUNTER_*)
IOScheduler	**getIOScheduler**() Get IO scheduler for vHost.
int	**getKeepAliveTimeout**() Get the RTMPT connection keep alive timeout
LiveStreamPacketizerList	**getLiveStreamPacketizerList**() Get the LiveStreamPacketizerList

LiveStreamTranscoderList	**getLiveStreamTranscoderList**() Get the LiveStreamTranscoderList
int	**getMaximumPendingReadBytes**() Set maximum number of bytes a client connection can have waiting to be written before the connection is terminated.
int	**getMaximumPendingWriteBytes**() Get maximum number a bytes a client connection can have waiting to be sent before the connection is terminated.
int	**getMaximumSetBufferTime**() Get maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call.
MediaCasterList	**getMediaCasterList**() Get the list of media caster definitions (MediaCaster.xml)
MediaCasterSettings	**getMediaCasterSettings**() Get the media caster settings
int	**getMediaReaderContentType**(String mediaType) Get the content type of a media stream name prefix (see IMediaReader.CONTENTTYPE_*)
MediaReaderList	**getMediaReaders**() Get the media readers attached to vHost (MediaReaders.xml).
MediaWriterList	**getMediaWriters**() Get the media writers attached to vHost (MediaWriters.xml).
java.util.Map	**getMp3TagMap**() Get MP3 tag map attached to vHost (MP3Tags.xml).
String	**getName**() Get vHost name
HostPortConfig	**getNetConnectionHostPortConfig**() Get the socket configuration for server to server connections
int	**getNetConnectionIdleFrequency**() Get server to server idle frequency (milliseconds)
int	**getNetConnectionProcessorCount**() Get net connection processor count.
int	**getNextNetConnectionId**() Get next connection id.
int	**getPingTimeout**() Get ping timeout (milliseconds)
WMSProperties	**getProperties**() Get properties attached to this vHost.
String	**getProperty**(String key) Get virtual host property.
void	**getProtocolUsage**(boolean[] protocolsInUse) Get the protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)

RTPContext	**getRTPContext**()	
	Get the RTP (real time protocol) virtual host context	
com.wowza.wms.rtp.transport.RTPUDPDatagramConfig	**getRTPDatagramConfigIncoming**()	
	Get the RTP Datagram Socket configuration	
com.wowza.wms.rtp.transport.RTPUDPDatagramConfig	**getRTPDatagramConfigOutgoing**()	
	Get the RTP Datagram Socket configuration	
int	**getRTPIdleFrequency**()	
	Get default RTP idle frequency (milliseconds)	
java.util.List	**getStartupStreams**()	
	Get the list of streams to start at virtual host startup	
StreamList	**getStreamTypes**()	
	Get default stream type.	
ThreadPool	**getThreadPool**()	
	Get the VHost handler thread pool.	
TimedTextProviderConfiguration	**getTimedTextProviderConfig**()	
	Get the config of TimedTextProviders	
String	**getTimeRunning**()	
	Get the time vHost has been running.	
double	**getTimeRunningSeconds**()	
	Get time running in seconds	
ThreadPool	**getTransportThreadPool**()	
	Get the VHost transport thread pool.	
com.wowza.wms.rtp.transport.UDPTransportManager	**getUDPTransportManager**()	
	Get the UDP transport manager.	
int	**getValidationFrequency**()	
	Get time between validation pings (milliseconds)	
void	**init**(String basePath)	
	Initialize vHost.	
boolean	**isApplicationLoaded**(String applicationName)	
	Return true is the application is loaded	
boolean	**isShuttingDown**()	
	Is the VHost shutting down	
boolean	**isStartStarupStreams**()	
	Returns true if the startup streams are to start and vhost startup	
boolean	**isSuspended**()	
	Returns true is all HostPorts connected to this VHost are suspended	
void	**killClient**(int clientId)	
	Remove client from vHost and send disconnect message.	

void	**killRTSPSession**(String rtspSessionId) Kill an RTSP connection by the RTSP session id
void	**putHTTPStreamerAdapter**(String ID, **IHTTPStreamerAdapter** adapter) Add an HTTPStreamerAdapter
String	**readVHostConfig**(String sName) Method to read xml config file..
void	**removeAcceptorListener**(**IAcceptorNotify** acceptorListener) Remove acceptor listener.
boolean	**removeApplication**(String sName) Method to remove an application
void	**removeApplicationListener**(**IApplicationNotify** applicationListener) Remove applation listener.
void	**removeClient**(int clientId) Remove client from vHost.
void	**removeIdleWorkerListener**(IIdleWorkerNotify idleWorkerListener) Remove idleWorker listener
void	**reparentClient**(**IClient** client) Move a client object to a new vhost.
void	**setAdminInterfaceHostPort**(**HostPort** adminInterfaceHostPort) Set admin interface host port (not used)
void	**setApplicationTimeout**(int applicationTimeout) Set application time out (milliseconds).
void	**setClientIdleFrequency**(int clientIdleFrequency) Set default client idle frequency (milliseconds)
void	**setClientTimeout**(int clientTimeout) Set client timeout.
void	**setCoreHandlerPoolSize**(int corePoolSize) Set the handler core thread pool size.
void	**setCoreTransportPoolSize**(int corePoolSize) Set the transport core thread pool size.
void	**setDynamicLogProperties**(java.util.Properties dynamicLogProperties) Set the dynamic log properties set at the vhost level
void	**setFileIOPoolSize**(int fileIOPoolSize) Set default file io thread pool size.
void	**setIdleCheckFrequency**(int idleCheckFrequency) Set idle check frequency (milliseconds)
void	**setIdleMinimumWaitTime**(int idleMinimumWaitTime) Set the minimum time (milliseconds) the idle worker thread will sleep before generating idle events
void	**setIdleWorkerCount**(int idleWorkerCount) Set number of threads used to generate idle events

void	**setKeepAliveTimeout**(int keepAliveTimeout)	
	Set the RTMPT connection keep alive timeout	
void	**setMaximumPendingReadBytes**(int maximumPendingReaderBytes)	
	Get maximum number of bytes a client connection can have waiting to be written before the connection is terminated.	
void	**setMaximumPendingWriteBytes**(int maximumPendingWriteBytes)	
	Set maximum number a bytes a client connection can have waiting to be sent before the connection is terminated.	
void	**setMaximumSetBufferTime**(int maximumSetBufferTime)	
	Set maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call.	
void	**setNetConnectionIdleFrequency**(int netConnectionIdleFrequency)	
	Set the server to server idle frequency (milliseconds)	
void	**setNetConnectionProcessorCount**(int netConnectionProcessorCount)	
	Set net connection processor count.	
void	**setPingTimeout**(int pingTimeout)	
	Set ping timeout (millseconds)	
void	**setRTPIdleFrequency**(int rtpIdleFrequency)	
	Set default RTP idle frequency (milliseconds)	
void	**setShuttingDown**(boolean shuttingDown)	
	Set VHost shutting down flag	
void	**setStartStarupStreams**(boolean startStarupStreams)	
	Set to true to startup startup stream as vhost startup	
void	**setValidationFrequency**(int validationFrequency)	
	Set time between validation pings (milliseconds)	
void	**shutdown**()	
	Shutdown.	
void	**shutdownApplication**(String appName)	
	Shutdown an application by name.	
boolean	**startApplicationInstance**(String appName)	
	Start an application instance.	
boolean	**startApplicationInstance**(String appName, String appInstanceName)	
	Start an application instance.	
void	**startStartupStreams**()	
	Method to start startup streams	
void	**stopStartupStreams**()	
	Method to stop startup streams	
void	**suspendAllHostPorts**()	
	Suspend all HostPorts from accepting new connections.	
boolean	**touchApplicationInstance**(String appName)	
	Start an application instance if it is not already started then touch it so it stays loaded for at least 3 seconds.	

boolean	**touchApplicationInstance**(String appName, String appInstanceName) Start an application instance if it is not already started then touch it so it stays loaded for at least 3 seconds.
void	**unbindAllHostPorts**() Unbind all HostPorts and drop all connections
void	**updateLoggingDuration**() Internal: update the internal logging values.
boolean	**writeVHostConfig**(String sName, String data) Method to write xml config file..

Fields

VHOST_DEFAULT

`public static final java.lang.String` **`VHOST_DEFAULT`**

Constant value: **_defaultVHost_**

LICENSECOUNTER_PUBLISHER

`public static final int` **`LICENSECOUNTER_PUBLISHER`**

Constant value: **0**

LICENSECOUNTER_TRANSCODE_DECODE

`public static final int` **`LICENSECOUNTER_TRANSCODE_DECODE`**

Constant value: **1**

LICENSECOUNTER_TRANSCODE_ENCODE

`public static final int` **`LICENSECOUNTER_TRANSCODE_ENCODE`**

Constant value: **2**

LICENSECOUNTER_NDVR

`public static final int` **`LICENSECOUNTER_NDVR`**

Constant value: **3**

LICENSECOUNTER_DRM_EZDRM_LIVE

`public static final int` **`LICENSECOUNTER_DRM_EZDRM_LIVE`**

Constant value: **4**

LICENSECOUNTER_DRM_EZDRM_VOD

public static final int **LICENSECOUNTER_DRM_EZDRM_VOD**

Constant value: **5**

LICENSECOUNTER_DRM_VERIMATRIX_LIVE

public static final int **LICENSECOUNTER_DRM_VERIMATRIX_LIVE**

Constant value: **6**

LICENSECOUNTER_DRM_VERIMATRIX_VOD

public static final int **LICENSECOUNTER_DRM_VERIMATRIX_VOD**

Constant value: **7**

LICENSECOUNTER_PUBLISHERTRANSCODER

public static final int **LICENSECOUNTER_PUBLISHERTRANSCODER**

Constant value: **8**

LICENSECOUNTER_DRM_BUYDRM_LIVE

public static final int **LICENSECOUNTER_DRM_BUYDRM_LIVE**

Constant value: **9**

LICENSECOUNTER_DRM_BUYDRM_VOD

public static final int **LICENSECOUNTER_DRM_BUYDRM_VOD**

Constant value: **10**

LICENSECOUNTER_TRANSCODE_DECODEPOLLING

public static final int **LICENSECOUNTER_TRANSCODE_DECODEPOLLING**

Constant value: **11**

LICENSECOUNTER_TRANSCODE_ENCODEPOLLING

public static final int **LICENSECOUNTER_TRANSCODE_ENCODEPOLLING**

Constant value: **12**

LICENSECOUNTER_TRANSCODE_STREAMNAMES

`public static final int LICENSECOUNTER_TRANSCODE_STREAMNAMES`

Constant value: **13**

LICENSECOUNTER_TRANSCODE_DECODECOUNTAUDIO

`public static final int LICENSECOUNTER_TRANSCODE_DECODECOUNTAUDIO`

Constant value: **14**

LICENSECOUNTER_TRANSCODE_DECODECOUNTVIDEO

`public static final int LICENSECOUNTER_TRANSCODE_DECODECOUNTVIDEO`

Constant value: **15**

LICENSECOUNTER_TRANSCODE_DECODECOUNTAUDIOVIDEO

`public static final int LICENSECOUNTER_TRANSCODE_DECODECOUNTAUDIOVIDEO`

Constant value: **16**

LICENSECOUNTER_TRANSCODE_ENCODECOUNTAUDIO

`public static final int LICENSECOUNTER_TRANSCODE_ENCODECOUNTAUDIO`

Constant value: **17**

LICENSECOUNTER_TRANSCODE_ENCODECOUNTVIDEO

`public static final int LICENSECOUNTER_TRANSCODE_ENCODECOUNTVIDEO`

Constant value: **18**

LICENSECOUNTER_TRANSCODE_ENCODECOUNTAUDIOVIDEO

`public static final int LICENSECOUNTER_TRANSCODE_ENCODECOUNTAUDIOVIDEO`

Constant value: **19**

LICENSECOUNTER_TOTAL

`public static final int LICENSECOUNTER_TOTAL`

Constant value: **20**

COUNTER_RTMP

`public static final int COUNTER_RTMP`

Constant value: **0**

COUNTER_RTP

```
public static final int COUNTER_RTP
```

Constant value: **1**

COUNTER_HTTPCUPERTINO

```
public static final int COUNTER_HTTPCUPERTINO
```

Constant value: **2**

COUNTER_HTTPSMOOTH

```
public static final int COUNTER_HTTPSMOOTH
```

Constant value: **3**

COUNTER_HTTPSANJOSE

```
public static final int COUNTER_HTTPSANJOSE
```

Constant value: **4**

COUNTER_HTTPWEBM

```
public static final int COUNTER_HTTPWEBM
```

Constant value: **5**

COUNTER_HTTPMPEGDASH

```
public static final int COUNTER_HTTPMPEGDASH
```

Constant value: **6**

COUNTER_HTTPDVRCHUNKS

```
public static final int COUNTER_HTTPDVRCHUNKS
```

Constant value: **7**

COUNTER_TOTAL

```
public static final int COUNTER_TOTAL
```

Constant value: **8**

CODEC_VIDEO_UNKNOWN

`public static final int` **`CODEC_VIDEO_UNKNOWN`**

Constant value: **-1**

CODEC_VIDEO_SPARK

`public static final int` **`CODEC_VIDEO_SPARK`**

Constant value: **2**

CODEC_VIDEO_SCREEN

`public static final int` **`CODEC_VIDEO_SCREEN`**

Constant value: **3**

CODEC_VIDEO_VP6

`public static final int` **`CODEC_VIDEO_VP6`**

Constant value: **4**

CODEC_VIDEO_VP6A

`public static final int` **`CODEC_VIDEO_VP6A`**

Constant value: **5**

CODEC_VIDEO_SCREEN2

`public static final int` **`CODEC_VIDEO_SCREEN2`**

Constant value: **6**

CODEC_VIDEO_H264

`public static final int` **`CODEC_VIDEO_H264`**

Constant value: **7**

CODEC_VIDEO_VP8

`public static final int` **`CODEC_VIDEO_VP8`**

Constant value: **8**

CODEC_VIDEO_H263

`public static final int CODEC_VIDEO_H263`

Constant value: **9**

CODEC_VIDEO_MPEG4

`public static final int CODEC_VIDEO_MPEG4`

Constant value: **10**

CODEC_VIDEO_MPEG2

`public static final int CODEC_VIDEO_MPEG2`

Constant value: **11**

CODEC_AUDIO_UNKNOWN

`public static final int CODEC_AUDIO_UNKNOWN`

Constant value: **-1**

CODEC_AUDIO_PCM_BE

`public static final int CODEC_AUDIO_PCM_BE`

Constant value: **0**

CODEC_AUDIO_PCM_SWF

`public static final int CODEC_AUDIO_PCM_SWF`

Constant value: **1**

CODEC_AUDIO_AC3

`public static final int CODEC_AUDIO_AC3`

Constant value: **1**

CODEC_AUDIO_MP3

`public static final int CODEC_AUDIO_MP3`

Constant value: **2**

CODEC_AUDIO_PCM_LE

`public static final int CODEC_AUDIO_PCM_LE`

Constant value: **3**

CODEC_AUDIO_NELLYMOSER_16MONO

`public static final int` **`CODEC_AUDIO_NELLYMOSER_16MONO`**

Constant value: **4**

CODEC_AUDIO_NELLYMOSER_8MONO

`public static final int` **`CODEC_AUDIO_NELLYMOSER_8MONO`**

Constant value: **5**

CODEC_AUDIO_NELLYMOSER

`public static final int` **`CODEC_AUDIO_NELLYMOSER`**

Constant value: **6**

CODEC_AUDIO_G711_ALAW

`public static final int` **`CODEC_AUDIO_G711_ALAW`**

Constant value: **7**

CODEC_AUDIO_G711_MULAW

`public static final int` **`CODEC_AUDIO_G711_MULAW`**

Constant value: **8**

CODEC_AUDIO_RESERVED

`public static final int` **`CODEC_AUDIO_RESERVED`**

Constant value: **9**

CODEC_AUDIO_VORBIS

`public static final int` **`CODEC_AUDIO_VORBIS`**

Constant value: **9**

CODEC_AUDIO_AAC

`public static final int` **`CODEC_AUDIO_AAC`**

Constant value: **10**

CODEC_AUDIO_SPEEX

`public static final int` **`CODEC_AUDIO_SPEEX`**

Constant value: **11**

CODEC_AUDIO_MP3_8

`public static final int` **`CODEC_AUDIO_MP3_8`**

Constant value: **15**

CODEC_STREAM_UNKNOWN

`public static final int` **`CODEC_STREAM_UNKNOWN`**

Constant value: **-1**

CODEC_STREAM_MP2T

`public static final int` **`CODEC_STREAM_MP2T`**

Constant value: **0**

FILEFORMAT_UNKNOWN

`public static final int` **`FILEFORMAT_UNKNOWN`**

Constant value: **-1**

FILEFORMAT_FLV

`public static final int` **`FILEFORMAT_FLV`**

Constant value: **1**

FILEFORMAT_MP4

`public static final int` **`FILEFORMAT_MP4`**

Constant value: **2**

CONTENTTYPE_UKNOWN

`public static final byte` **`CONTENTTYPE_UKNOWN`**

AMF Content type: unknown
Constant value: **0**

CONTENTTYPE_SETCHUNKSIZE

`public static final byte` **`CONTENTTYPE_SETCHUNKSIZE`**

AMF Content type: set packet chunk size
Constant value: **1**

CONTENTTYPE_WATCHDOG

`public static final byte` **`CONTENTTYPE_WATCHDOG`**

AMF Content type: watch dog
Constant value: **3**

CONTENTTYPE_BUFFERSIZE

`public static final byte` **`CONTENTTYPE_BUFFERSIZE`**

AMF Content type: set buffer size
Constant value: **4**

CONTENTTYPE_ACKBANDWIDTH

`public static final byte` **`CONTENTTYPE_ACKBANDWIDTH`**

AMF Content type: set acknowledge bandwidth size
Constant value: **5**

CONTENTTYPE_SETBANDWIDTH

`public static final byte` **`CONTENTTYPE_SETBANDWIDTH`**

AMF Content type: set bandwidth size
Constant value: **6**

CONTENTTYPE_AUDIO

`public static final byte` **`CONTENTTYPE_AUDIO`**

AMF Content type: audio packet
Constant value: **8**

CONTENTTYPE_VIDEO

`public static final byte` **`CONTENTTYPE_VIDEO`**

AMF Content type: video packet
Constant value: **9**

CONTENTTYPE_DATA

`public static final byte` **`CONTENTTYPE_DATA`**

AMF Content type: data packet
Constant value: **18**

CONTENTTYPE_DATA0

`public static final byte` **`CONTENTTYPE_DATA0`**

AMF Content type: data packet (AMF0)
Constant value: **18**

CONTENTTYPE_DATA3

`public static final byte` **CONTENTTYPE_DATA3**

AMF Content type: data packet (AMF3)
Constant value: **15**

CONTENTTYPE_SHAREDOBJECTS

`public static final byte` **CONTENTTYPE_SHAREDOBJECTS**

AMF Content type: shared object packet (AMF0)
Constant value: **19**

CONTENTTYPE_SHAREDOBJECTS0

`public static final byte` **CONTENTTYPE_SHAREDOBJECTS0**

AMF Content type: shared object packet (AMF0)
Constant value: **19**

CONTENTTYPE_SHAREDOBJECTS3

`public static final byte` **CONTENTTYPE_SHAREDOBJECTS3**

AMF Content type: shared object packet (AMF3)
Constant value: **16**

CONTENTTYPE_FUNCTION

`public static final byte` **CONTENTTYPE_FUNCTION**

AMF Content type: function data (AMF0)
Constant value: **20**

CONTENTTYPE_FUNCTION0

`public static final byte` **CONTENTTYPE_FUNCTION0**

AMF Content type: function data (AMF0)
Constant value: **20**

CONTENTTYPE_MEDIACHUNK

`public static final byte` **CONTENTTYPE_MEDIACHUNK**

AMF Content type: media chunk
Constant value: **22**

CONTENTTYPE_FUNCTION3

`public static final byte` **CONTENTTYPE_FUNCTION3**

AMF Content type: function data (AMF3)
Constant value: **17**

CONTENTTYPE_PLAYCALLBACK

`public static final byte` **`CONTENTTYPE_PLAYCALLBACK`**

> AMF Content type: play callback
> Constant value: **`127`**

ACCEPTORS_ACCEPTOR

`public static final java.lang.String` **`ACCEPTORS_ACCEPTOR`**

> Acceptor types: acceptor
> Constant value: **`acceptor`**

ACCEPTORS_HANDLERADAPTER

`public static final java.lang.String` **`ACCEPTORS_HANDLERADAPTER`**

> Acceptor types: handler
> Constant value: **`handlerAdapter`**

Methods

init

`public void` **`init`**`(String basePath)`

> Initialize vHost.
>
> **Parameters:**
> > `basePath` - base path to configuration files

shutdown

`public void` **`shutdown`**`()`

> Shutdown.

getStreamTypes

`public` [StreamList](#) **`getStreamTypes`**`()`

> Get default stream type.
>
> **Returns:**
> > default stream type

getProperty

`public String` **`getProperty`**`(String key)`

> Get virtual host property.
>
> **Parameters:**
> > `key` - key
>
> **Returns:**
> > property value or null if does not exist

getClientTimeout

```
public int getClientTimeout()
```

> Get client timeout.
>
> ### Returns:
> > client timeout

getNextNetConnectionId

```
public int getNextNetConnectionId()
```

> Get next connection id.
>
> ### Returns:
> > next connection id

getClient

```
public IClient getClient(int clientId)
```

> Get client by client id.
>
> ### Parameters:
> > clientId - client id
>
> ### Returns:
> > client

getClient

```
public IClient getClient(int clientId,
        boolean create)
```

> Get client by client id and create if does not exist.
>
> ### Parameters:
> > clientId - client id
> > create - create if does not exist
>
> ### Returns:
> > client

removeClient

```
public void removeClient(int clientId)
```

> Remove client from vHost.
>
> ### Parameters:
> > clientId - client id

killClient

```
public void killClient(int clientId)
```

> Remove client from vHost and send disconnect message.

> **Parameters:**
> clientId - client id

---

killRTSPSession

public void **killRTSPSession**(String rtspSessionId)

Kill an RTSP connection by the RTSP session id

> **Parameters:**
> rtspSessionId - RTSP session id

---

getApplication

public [IApplication](#) **getApplication**(String applicationName)

Get application by name.

> **Parameters:**
> applicationName - application name

> **Returns:**
> application

---

isApplicationLoaded

public boolean **isApplicationLoaded**(String applicationName)

Return true is the application is loaded

> **Parameters:**
> applicationName - application name

> **Returns:**
> true if application is loaded

---

getHomePath

public String **getHomePath**()

Get vHost configuration path.

> **Returns:**
> configuration path

---

getProperties

public [WMSProperties](#) **getProperties**()

Get properties attached to this vHost.

> **Returns:**
> properties attached to this vHost

---

getCoreTransportPoolSize

public int **getCoreTransportPoolSize**()

Get the transport core thread pool size.

Returns:
default core thread pool size

setCoreTransportPoolSize

```
public void setCoreTransportPoolSize(int corePoolSize)
```

Set the transport core thread pool size.

Parameters:
corePoolSize - core thread pool size

getCoreHandlerPoolSize

```
public int getCoreHandlerPoolSize()
```

Get the handler core thread pool size.

Returns:
default core thread pool size

setCoreHandlerPoolSize

```
public void setCoreHandlerPoolSize(int corePoolSize)
```

Set the handler core thread pool size.

Parameters:
corePoolSize - core thread pool size

getFileIOPoolSize

```
public int getFileIOPoolSize()
```

Get the default file io pool size.

Returns:
default file io pool size

setFileIOPoolSize

```
public void setFileIOPoolSize(int fileIOPoolSize)
```

Set default file io thread pool size.

Parameters:
fileIOPoolSize - default file io thread pool size

setClientTimeout

```
public void setClientTimeout(int clientTimeout)
```

Set client timeout. An inactive client connected by RTMPT protocol will be deleted after this timeout.

Parameters:
clientTimeout - client timeout

getHostPortsList

public [HostPortList](#) **getHostPortsList**()

Get list of host port definitions for vHost.

Returns:
list of host port definitions for vHost

getThreadPool

public [ThreadPool](#) **getThreadPool**()

Get the VHost handler thread pool. Same as getHandlerThreadPool.

Returns:
VHost handler thread pool

getTransportThreadPool

public [ThreadPool](#) **getTransportThreadPool**()

Get the VHost transport thread pool. This thread pool is used to read/write data from the transports sockets.

Returns:
VHost transport thread pool

getHandlerThreadPool

public [ThreadPool](#) **getHandlerThreadPool**()

Get the VHost handler thread pool. This thread pool is used to process the incoming events.

Returns:
VHost handler thread pool

getName

public String **getName**()

Get vHost name

Returns:
vHost name

setAdminInterfaceHostPort

public void **setAdminInterfaceHostPort**([HostPort](#) adminInterfaceHostPort)

Set admin interface host port (not used)

Parameters:
adminInterfaceHostPort - admin interface host port

getClientCount

public int **getClientCount**()

Get number of clients connected to this vHost.

Returns:
> number of clients connected to this vHost

---

getNetConnectionProcessorCount

```
public int getNetConnectionProcessorCount()
```

Get net connection processor count. Number of threads used for server to server communication (not finished).

Returns:
> net connection processor count

---

setNetConnectionProcessorCount

```
public void setNetConnectionProcessorCount(int netConnectionProcessorCount)
```

Set net connection processor count. Number of threads used for server to server communication (not finished).

Parameters:
> netConnectionProcessorCount - net connection processor count

---

addApplicationListener

```
public void addApplicationListener(IApplicationNotify applicationListener)
```

Add application listener. An application listener will receive the following events: onApplicationCreate, onApplicationDestroy.

Parameters:
> applicationListener - application listener

---

removeApplicationListener

```
public void removeApplicationListener(IApplicationNotify applicationListener)
```

Remove applation listener.

Parameters:
> applicationListener - applation listener

---

addAcceptorListener

```
public void addAcceptorListener(IAcceptorNotify acceptorListener)
```

Add acceptor listener. Acceptor listeners will receive the following events: onAcceptorCreate, onAcceptorDestroy.

Parameters:
> acceptorListener - acceptor listener

---

removeAcceptorListener

```
public void removeAcceptorListener(IAcceptorNotify acceptorListener)
```

Remove acceptor listener.

Parameters:
> acceptorListener - acceptor listener

---

getIOScheduler

`public IOScheduler` **`getIOScheduler`**`()`

Get IO scheduler for vHost. IO scheduler is used to schedule reads from the disk to increase server throughput for static flv serving.

Returns:
IO scheduler for vHost

getIoPerformanceCounter

`public` [`IOPerformanceCounter`](#) **`getIoPerformanceCounter`**`()`

Get vHost IO performance counter.

Returns:
io performance counter

getIoPerformanceCounter

`public` [`IOPerformanceCounter`](#) **`getIoPerformanceCounter`**`(int counterIndex)`

Get vHost IO performance counter for a specific technology (see IVHost.COUNTER_*)

Parameters:
`counterIndex` - counter index (see IVHost.COUNTER_*)

Returns:
io performance counter

getConnectionCounter

`public` [`ConnectionCounter`](#) **`getConnectionCounter`**`()`

Get vHost connection counter.

Returns:
connection counter

getConnectionCounter

`public ConnectionCounterSimple` **`getConnectionCounter`**`(int counterIndex)`

Get vHost connection counter for a specific technology (see IVHost.COUNTER_*)

Parameters:
`counterIndex` - counter index (see IVHost.COUNTER_*)

Returns:
connection counter

getDateStarted

`public String` **`getDateStarted`**`()`

Get date and time the server was started.

Returns:
> date and time the server was started

getTimeRunning

`public String` **`getTimeRunning`**`()`

> Get the time vHost has been running.

> **Returns:**
> > formatted string with vHost uptime

getTimeRunningSeconds

`public double` **`getTimeRunningSeconds`**`()`

> Get time running in seconds

> **Returns:**
> > time running in seconds

getConnectionLimit

`public int` **`getConnectionLimit`**`()`

> Get vHost connection limit.

> **Returns:**
> > vHost connection limit

getMediaReaders

`public MediaReaderList` **`getMediaReaders`**`()`

> Get the media readers attached to vHost (MediaReaders.xml).

> **Returns:**
> > media readers attached to vHost

getMediaWriters

`public MediaWriterList` **`getMediaWriters`**`()`

> Get the media writers attached to vHost (MediaWriters.xml).

> **Returns:**
> > media writers attached to vHost

getMp3TagMap

`public java.util.Map` **`getMp3TagMap`**`()`

> Get MP3 tag map attached to vHost (MP3Tags.xml).

> **Returns:**
> > MP3 tag map attached to vHost

updateLoggingDuration

`public void **updateLoggingDuration**()`

> Internal: update the internal logging values.

getApplicationTimeout

`public int **getApplicationTimeout**()`

> Get application time out (milliseconds). Time from last client disconnect to application destruction.

> **Returns:**
>> application time out (milliseconds)

setApplicationTimeout

`public void **setApplicationTimeout**(int applicationTimeout)`

> Set application time out (milliseconds).

> **Parameters:**
>> `applicationTimeout` - application time out (milliseconds)

getPingTimeout

`public int **getPingTimeout**()`

> Get ping timeout (milliseconds)

> **Returns:**
>> ping timeout (milliseconds)

setPingTimeout

`public void **setPingTimeout**(int pingTimeout)`

> Set ping timeout (millseconds)

> **Parameters:**
>> `pingTimeout` - ping timeout (millseconds)

getValidationFrequency

`public int **getValidationFrequency**()`

> Get time between validation pings (milliseconds)

> **Returns:**
>> time between validation pings (milliseconds)

setValidationFrequency

`public void **setValidationFrequency**(int validationFrequency)`

> Set time between validation pings (milliseconds)

> **Parameters:**

validationFrequency - time between validation pings (milliseconds)

getMaximumPendingWriteBytes

`public int getMaximumPendingWriteBytes()`

Get maximum number a bytes a client connection can have waiting to be sent before the connection is terminated. If set to zero this feature is turned off.

Returns:

maximum number a bytes a client connection can have waiting to be sent before the connection is terminated

setMaximumPendingWriteBytes

`public void setMaximumPendingWriteBytes(int maximumPendingWriteBytes)`

Set maximum number a bytes a client connection can have waiting to be sent before the connection is terminated. If set to zero this feature is turned off.

Parameters:

maximumPendingWriteBytes - maximum number a bytes a client connection can have waiting to be sent before the connection is terminated

getMaximumPendingReadBytes

`public int getMaximumPendingReadBytes()`

Set maximum number of bytes a client connection can have waiting to be written before the connection is terminated. If set to zero this feature is off.

Returns:

maximum number of bytes a client connection can have waiting to be written before the connection is terminated

setMaximumPendingReadBytes

`public void setMaximumPendingReadBytes(int maximumPendingReaderBytes)`

Get maximum number of bytes a client connection can have waiting to be written before the connection is terminated. If set to zero this feature is off.

Parameters:

maximumPendingReaderBytes - maximum number of bytes a client connection can have waiting to be written before the connection is terminated

getMaximumSetBufferTime

`public int getMaximumSetBufferTime()`

Get maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call. If set to zero this feature is turned off.

Returns:

maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call

setMaximumSetBufferTime

`public void setMaximumSetBufferTime(int maximumSetBufferTime)`

Set maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call. If set to zero this feature is turned off.

Parameters:

maximumSetBufferTime - maximum number of milliseconds allowed for the NetStream.setBufferTime(secs) call

getApplicationLock

```
public edu.emory.mathcs.backport.java.util.concurrent.locks.WMSReadWriteLock
getApplicationLock()
```

Get the object used in synchronized statements to lock and application.

Returns:

object used in synchronized statements to lock and application

getClientIdleFrequency

```
public int getClientIdleFrequency()
```

Get default client idle frequency (milliseconds)

Returns:

default client idle frequency (milliseconds)

setClientIdleFrequency

```
public void setClientIdleFrequency(int clientIdleFrequency)
```

Set default client idle frequency (milliseconds)

Parameters:

clientIdleFrequency - default client idle frequency (milliseconds)

getRTPIdleFrequency

```
public int getRTPIdleFrequency()
```

Get default RTP idle frequency (milliseconds)

Returns:

default RTP idle frequency (milliseconds)

setRTPIdleFrequency

```
public void setRTPIdleFrequency(int rtpIdleFrequency)
```

Set default RTP idle frequency (milliseconds)

Parameters:

rtpIdleFrequency - RTP default client idle frequency (milliseconds)

getNetConnectionIdleFrequency

```
public int getNetConnectionIdleFrequency()
```

Get server to server idle frequency (milliseconds)

Returns:

server to server idle frequency (milliseconds)

setNetConnectionIdleFrequency

`public void ` **`setNetConnectionIdleFrequency`**`(int netConnectionIdleFrequency)`

Set the server to server idle frequency (milliseconds)

Parameters:
netConnectionIdleFrequency - server to server idle frequency (milliseconds)

getIdleCheckFrequency

`public int ` **`getIdleCheckFrequency`**`()`

Get idle check frequency (milliseconds)

Returns:
idle check frequency (milliseconds)

setIdleCheckFrequency

`public void ` **`setIdleCheckFrequency`**`(int idleCheckFrequency)`

Set idle check frequency (milliseconds)

Parameters:
idleCheckFrequency - idle check frequency (milliseconds)

getIdleWorkerCount

`public int ` **`getIdleWorkerCount`**`()`

Get number of threads used to generate idle events

Returns:
number of threads used to generate idle events

setIdleWorkerCount

`public void ` **`setIdleWorkerCount`**`(int idleWorkerCount)`

Set number of threads used to generate idle events

Parameters:
idleWorkerCount - number of threads used to generate idle events

getKeepAliveTimeout

`public int ` **`getKeepAliveTimeout`**`()`

Get the RTMPT connection keep alive timeout

Returns:
RTMPT connection keep alive timeout

setKeepAliveTimeout

`public void ` **`setKeepAliveTimeout`**`(int keepAliveTimeout)`

Set the RTMPT connection keep alive timeout

Parameters:
>   keepAliveTimeout - RTMPT connection keep alive timeout

---

addIdleWorkerListener

public void **addIdleWorkerListener**(IIdleWorkerNotify idleWorkerListener)

>   Add idleWorker listener. An idleWorker listener will receive the following events: onIdleWorkerCreate, onIdleWorkerDestroy.

Parameters:
>   idleWorkerListener - idleWorker listener

---

removeIdleWorkerListener

public void **removeIdleWorkerListener**(IIdleWorkerNotify idleWorkerListener)

>   Remove idleWorker listener

Parameters:
>   idleWorkerListener - idleWorker listener

---

getNetConnectionHostPortConfig

public HostPortConfig **getNetConnectionHostPortConfig**()

>   Get the socket configuration for server to server connections

Returns:
>   socket configuration for server to server connections

---

getMediaCasterSettings

public [MediaCasterSettings](#) **getMediaCasterSettings**()

>   Get the media caster settings

Returns:
>   media caster settings

---

getMediaCasterList

public [MediaCasterList](#) **getMediaCasterList**()

>   Get the list of media caster definitions (MediaCaster.xml)

Returns:
>   list of media caster definitions

---

getApplicationNames

public java.util.List **getApplicationNames**()

>   Get a list of application names

Returns:
>   list of application names

---

getApplicationFolderNames

`public java.util.List` **`getApplicationFolderNames`**`()`

Get a list of application folder names

Returns:
list of application folder names

applicationExists

`public boolean` **`applicationExists`**`(String name)`

Return true if an application folder exists for this application name

Parameters:
name - application name

Returns:
true if an application folder exists for this application name

getRTPContext

`public` RTPContext **`getRTPContext`**`()`

Get the RTP (real time protocol) virtual host context

Returns:
RTP (real time protocol) virtual host context

getHTTPStreamerContext

`public HTTPStreamerContext` **`getHTTPStreamerContext`**`()`

Get the HTTPStreamer (Cupertino Streaming and Silverlight Smooth Streaming) host context

Returns:
HTTPStreamer (Cupertino Streaming and Silverlight Smooth Streaming) host context

getRTPDatagramConfigIncoming

`public com.wowza.wms.rtp.transport.RTPUDPDatagramConfig` **`getRTPDatagramConfigIncoming`**`()`

Get the RTP Datagram Socket configuration

Returns:
RTP Datagram Socket configuration

getRTPDatagramConfigOutgoing

`public com.wowza.wms.rtp.transport.RTPUDPDatagramConfig` **`getRTPDatagramConfigOutgoing`**`()`

Get the RTP Datagram Socket configuration

Returns:
RTP Datagram Socket configuration

getAuthenticationList

`public AuthenticationList **getAuthenticationList**()`

> Get the list of available authentication methods
>
> **Returns:**
> > list of available authentication methods

getIdleMinimumWaitTime

`public int **getIdleMinimumWaitTime**()`

> Get the minimum time (milliseconds) the idle worker thread will sleep before generating idle events
>
> **Returns:**
> > minimum time (milliseconds) the idle worker thread will sleep before generating idle events

setIdleMinimumWaitTime

`public void **setIdleMinimumWaitTime**(int idleMinimumWaitTime)`

> Set the minimum time (milliseconds) the idle worker thread will sleep before generating idle events
>
> **Parameters:**
> > idleMinimumWaitTime - minimum time (milliseconds) the idle worker thread will sleep before generating idle events

getIdleWorkers

`public IdleWorkersUtil **getIdleWorkers**()`

> Get the idle worker utility
>
> **Returns:**
> > idle worker utility

isShuttingDown

`public boolean **isShuttingDown**()`

> Is the VHost shutting down
>
> **Returns:**
> > true if the vhost is shutting down

setShuttingDown

`public void **setShuttingDown**(boolean shuttingDown)`

> Set VHost shutting down flag
>
> **Parameters:**
> > shuttingDown - true if the vhost is shutting down

reparentClient

`public void **reparentClient**([IClient](IClient) client)`

Move a client object to a new vhost. This can only be done right after the handshake process has completed. See IVHostNotify.onVHostClientConnect.

Parameters:
> `client` - client object to move

---

getDynamicLogProperties

`public java.util.Properties` **`getDynamicLogProperties`**`()`

> Get the dynamic log properties defined at the vhost level in conf/log4j.properties

> **Returns:**
>> dynamic log properties defined at the vhost level

---

setDynamicLogProperties

`public void` **`setDynamicLogProperties`**`(java.util.Properties dynamicLogProperties)`

> Set the dynamic log properties set at the vhost level

> **Parameters:**
>> `dynamicLogProperties` - dynamic log properties defined at the vhost level

---

shutdownApplication

`public void` **`shutdownApplication`**`(String appName)`

> Shutdown an application by name. This will disconnect all clients connected to all child application instances.

> **Parameters:**
>> `appName` - application name

---

unbindAllHostPorts

`public void` **`unbindAllHostPorts`**`()`

> Unbind all HostPorts and drop all connections

---

suspendAllHostPorts

`public void` **`suspendAllHostPorts`**`()`

> Suspend all HostPorts from accepting new connections. Current connections will continue to be serviced

---

closeHostPort

`public void` **`closeHostPort`**`(`[HostPort]` hostPort,`
> `boolean isSuspend)`

> Close an individual HostPort

> **Parameters:**
>> `hostPort` - host port to close
>> `isSuspend` - if true will just suspend the HostPort from accepting new connections, if false will unbind and drop all connections

isSuspended

```
public boolean isSuspended()
```

Returns true is all HostPorts connected to this VHost are suspended

touchApplicationInstance

```
public boolean touchApplicationInstance(String appName)
```

Start an application instance if it is not already started then touch it so it stays loaded for at least 3 seconds.

Parameters:
appName - application name

Returns:
true is successful

touchApplicationInstance

```
public boolean touchApplicationInstance(String appName,
        String appInstanceName)
```

Start an application instance if it is not already started then touch it so it stays loaded for at least 3 seconds. The default appInstanceName _definst_ will be used.

Parameters:
appName - application name
appInstanceName - app instance name

Returns:
true is successful

startApplicationInstance

```
public boolean startApplicationInstance(String appName)
```

Start an application instance. The default appInstanceName _definst_ will be used.

Parameters:
appName - application name

Returns:
true is successful

startApplicationInstance

```
public boolean startApplicationInstance(String appName,
        String appInstanceName)
```

Start an application instance.

Parameters:
appName - application name
appInstanceName - app instance name

Returns:
true is successful

getUDPTransportManager

`public com.wowza.wms.rtp.transport.UDPTransportManager getUDPTransportManager()`

Get the UDP transport manager.

Returns:
UDP transport manager

getHTTPStreamerList

`public HTTPStreamerList getHTTPStreamerList()`

Get the list of HTTPStreamers

Returns:
list of HTTPStreamers

getHTTPStreamerAdapter

`public IHTTPStreamerAdapter getHTTPStreamerAdapter(String ID)`

Get an HTTPStreamerAdapter by ID

Parameters:
ID - HTTPStreamerAdapter ID

Returns:
HTTPStreamerAdapter

putHTTPStreamerAdapter

`public void putHTTPStreamerAdapter(String ID,`
`        IHTTPStreamerAdapter adapter)`

Add an HTTPStreamerAdapter

Parameters:
ID - HTTPStreamerAdapter ID
adapter - HTTPStreamerAdapter

getHTTPStreamerAdapterIDs

`public java.util.List getHTTPStreamerAdapterIDs()`

Get a list of HTTPStreamerAdapter IDs

Returns:
list of HTTPStreamerAdapter IDs

getLiveStreamPacketizerList

`public LiveStreamPacketizerList getLiveStreamPacketizerList()`

Get the LiveStreamPacketizerList

Returns:
LiveStreamPacketizerList

getLiveStreamTranscoderList

`public LiveStreamTranscoderList` **`getLiveStreamTranscoderList()`**

Get the LiveStreamTranscoderList

Returns:
LiveStreamTranscoderList

getTimedTextProviderConfig

`public TimedTextProviderConfiguration` **`getTimedTextProviderConfig()`**

Get the config of TimedTextProviders

Returns:
TimedTextProviders config

getStartupStreams

`public java.util.List` **`getStartupStreams()`**

Get the list of streams to start at virtual host startup

Returns:
list of streams to start at virtual host startup

addStartupStream

`public void` **`addStartupStream`**`(StartupStream startupStream)`

Add a stream to the list of streams to start and virtual host startup

Parameters:
startupStream - startup stream

isStartStarupStreams

`public boolean` **`isStartStarupStreams()`**

Returns true if the startup streams are to start and vhost startup

Returns:
true if the startup streams are to start and vhost startup

setStartStarupStreams

`public void` **`setStartStarupStreams`**`(boolean startStarupStreams)`

Set to true to startup startup stream as vhost startup

Parameters:
startStarupStreams - true if the startup streams are to start and vhost startup

startStartupStreams

`public void` **`startStartupStreams()`**

Method to start startup streams

---

stopStartupStreams

public void **stopStartupStreams**()

Method to stop startup streams

---

createApplication

public boolean **createApplication**(String sName,
        String sStreamType,
        String sContentLoc)

Method to create a new application

---

removeApplication

public boolean **removeApplication**(String sName)

Method to remove an application

---

readVHostConfig

public String **readVHostConfig**(String sName)

Method to read xml config file..

---

writeVHostConfig

public boolean **writeVHostConfig**(String sName,
        String data)

Method to write xml config file..

---

getDvrRecorderList

public DvrRecorderList **getDvrRecorderList**()

Get the DvrRecorderList

Returns:
    list of DVR Recorders

---

getDvrStoreList

public DvrStoreList **getDvrStoreList**()

Get the list of DVR Stores

Returns:
    list of DVR Stores

---

getMediaReaderContentType

public int **getMediaReaderContentType**(String mediaType)

Get the content type of a media stream name prefix (see IMediaReader.CONTENTTYPE_*)

Parameters:
>   mediaType - mediaType (such as flv or smil)

Returns:
>   content type (see IMediaReader.CONTENTTYPE_*)

---

getProtocolUsage

`public void` **`getProtocolUsage`**`(boolean[] protocolsInUse)`

Get the protocols in use by this application instance (see IApplicationInstance.PROTCOLUSAGE_*)

com.wowza.wms.vhost
Interface IVHostItemNotify

public interface **IVHostItemNotify**
extends

IVHostItemNotify: listener interface used by VHostList addVHostItemListener

VHostList is the list vHost definitions in VHosts.xml not the vHosts themselves. With this listener interface you can monitor the vHost definition changes.

Method Summary

void	onVHostItemCreate(VHostItem vhostItem) Triggered when vHostItem created
void	onVHostItemDestroy(VHostItem vhostItem) Triggered when vHostItem destroyed
void	onVHostItemUpdate(VHostItem vhostItem) Triggered when vHostItem updated

Methods

onVHostItemCreate

public void **onVHostItemCreate**(VHostItem vhostItem)

Triggered when vHostItem created

Parameters:
vhostItem - vhostItem

onVHostItemUpdate

public void **onVHostItemUpdate**(VHostItem vhostItem)

Triggered when vHostItem updated

Parameters:
vhostItem - vhostItem

onVHostItemDestroy

public void **onVHostItemDestroy**(VHostItem vhostItem)

Triggered when vHostItem destroyed

Parameters:
vhostItem - vhostItem

com.wowza.wms.vhost
Interface IVHostNotify

public interface **IVHostNotify**
extends

IVHostNotify: listener interface used by VHostSingleton addVHostListener

Method Summary

void	**onVHostClientConnect**([IVHost](#) vhost, [IClient](#) inClient, com.wowza.wms.request.RequestFunction function, [AMFDataList](#) params) Triggered before a client connects to this virtual host.
void	**onVHostCreate**([IVHost](#) vhost) Triggered when vHost created
void	**onVHostInit**([IVHost](#) vhost) Triggered when vHost initialized
void	**onVHostShutdownComplete**([IVHost](#) vhost) Triggered at the end of vhost shutdown
void	**onVHostShutdownStart**([IVHost](#) vhost) Triggered at the beginning of vhost shutdown

Methods

onVHostCreate

public void **onVHostCreate**([IVHost](#) vhost)

Triggered when vHost created

Parameters:
vhost

onVHostInit

public void **onVHostInit**([IVHost](#) vhost)

Triggered when vHost initialized

Parameters:
vhost - vhost

onVHostShutdownStart

public void **onVHostShutdownStart**([IVHost](#) vhost)

Triggered at the beginning of vhost shutdown

Parameters:
    vhost - vhost

onVHostShutdownComplete

```
public void onVHostShutdownComplete(IVHost vhost)
```

Triggered at the end of vhost shutdown

Parameters:
    vhost - vhost

onVHostClientConnect

```
public void onVHostClientConnect(IVHost vhost,
          IClient inClient,
          com.wowza.wms.request.RequestFunction function,
          AMFDataList params)
```

Triggered before a client connects to this virtual host. Provides an opportunity to rewrite the information that is being used to connect.

Parameters:
    vhost
    inClient - client object of the connection
    function - function
    params - parameters

com.wowza.wms.vhost
Interface IWorkerThreadClear

public interface **IWorkerThreadClear**
extends

IWorkerThreadClear: Internal use.

Method Summary

void	[clear](<>)()
void	[reset](<>)()

Methods

reset

public void **reset**()

clear

public void **clear**()

com.wowza.wms.vhost
Class StreamItem

```
java.lang.Object
    |
    +-com.wowza.wms.vhost.StreamItem
```

public class **StreamItem**
extends Object

StreamItem: data object that defines a streamType.

Constructor Summary

public	**StreamItem**(String name, String baseClass, String playClass) Create a new streamItem

Method Summary

void	**clearProperty**(String name) Clear property.
String	**getBaseClass**() Get base class path.
String	**getDescription**() Get streamType description.
String	**getName**() Get streamType name.
String	**getPlayClass**() Get play class path.
WMSProperties	**getProperties**() Get properties.
String	**getProperty**(String name) Get property by name.
void	**setBaseClass**(String baseClass) Set base class path.
void	**setDescription**(String description) Set streamType description.
void	**setName**(String name) Set streamType name.
void	**setPlayClass**(String playClass) Set play class path.
void	**setProperty**(String name, String value) Set property value.

String	toString()

Constructors

StreamItem

```
public StreamItem(String name,
                  String baseClass,
                  String playClass)
```

Create a new streamItem

Parameters:
`name` - streamType name
`baseClass` - base class path
`playClass` - play class path

Methods

getBaseClass

```
public String getBaseClass()
```

Get base class path.

Returns:
base clas path

setBaseClass

```
public void setBaseClass(String baseClass)
```

Set base class path.

Parameters:
`baseClass` - base class path

getName

```
public String getName()
```

Get streamType name.

Returns:
streamType name

setName

```
public void setName(String name)
```

Set streamType name.

Parameters:
name - streamType name

getPlayClass

```
public String getPlayClass()
```

Get play class path.

Returns:
play class path

setPlayClass

```
public void setPlayClass(String playClass)
```

Set play class path.

Parameters:
playClass - play class path

setProperty

```
public void setProperty(String name,
        String value)
```

Set property value.

Parameters:
name - property name
value - property value

clearProperty

```
public void clearProperty(String name)
```

Clear property.

Parameters:
name - property name

getProperty

```
public String getProperty(String name)
```

Get property by name.

Parameters:
name - property name

Returns:
property value

getProperties

```
public WMSProperties getProperties()
```

Get properties.

Returns:
properties

---

getDescription

`public String `**`getDescription`**`()`

Get streamType description.

Returns:
streamType description

---

setDescription

`public void `**`setDescription`**`(String description)`

Set streamType description.

Parameters:
`description` - streamType description

---

toString

`public String `**`toString`**`()`

com.wowza.wms.vhost
Class StreamList

```
java.lang.Object
    |
    +-com.wowza.wms.vhost.StreamList
```

public class **StreamList**
extends Object

StreamList: collection of StreamItems

Constructor Summary

public	[StreamList](#)() Create empty StreamList

Method Summary

[StreamItem](#)	[getStreamDef](#)(String name) Get streamItem by streamType name.
java.util.Map	[getStreamDefs](#)() Get Map of streamItems (by streamType names).
java.util.List	[getStreamTypeNames](#)() Get list of streamType names.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

StreamList

public **StreamList**()

Create empty StreamList

Methods

getStreamDefs

public java.util.Map **getStreamDefs**()

Get Map of streamItems (by streamType names).

Returns:
Map of streamItems

getStreamTypeNames

public java.util.List **getStreamTypeNames**()

Get list of streamType names. Returns shallow copy of list.

Returns:
list of streamType names

getStreamDef

public [StreamItem](#) **getStreamDef**(String name)

Get streamItem by streamType name.

Parameters:
name - streamType name

Returns:
streamItem

getStreamTypeNames

public java.util.List **getStreamTypeNames**()

com.wowza.wms.vhost
Class ThreadPool

```
java.lang.Object
    |
    +-com.wowza.wms.vhost.ThreadPool
```

public class **ThreadPool**
extends Object

ThreadPool: class for managing a pool of threads.

Constructor Summary

public	**ThreadPool**(IVHost vhost, String name) Create a new thread pool attached to a vHost.

Method Summary

void	**execute**(Runnable command) Execute a runnable object.
int	**getActiveCount**() Get number of active threads.
java.util.concurrent. Executor	**getExecutor**() Get the underlying Executor pool.
int	**getQueueSize**() Get the number of command objects in the LinkedBlockingQueue.
void	**init**(int corePoolSize) Initialize threadPool.
void	**terminate**() Terminate all threads and cleanup threadPool.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

ThreadPool

public **ThreadPool**(IVHost vhost,
                     String name)

Create a new thread pool attached to a vHost.

Parameters:

vhost - vHost

Methods

init

`public void init(int corePoolSize)`

Initialize threadPool.

Parameters:
corePoolSize - core pool size

terminate

`public void terminate()`

Terminate all threads and cleanup threadPool.

execute

`public void execute(Runnable command)`

Execute a runnable object. If the threadPool is at the corePool size, the object will be added to a LinkedBlockingQueue in the order it was received.

Parameters:
command

getExecutor

`public java.util.concurrent.Executor getExecutor()`

Get the underlying Executor pool.

Returns:
Executor pool

getActiveCount

`public int getActiveCount()`

Get number of active threads.

Returns:
number of active threads

getQueueSize

`public int getQueueSize()`

Get the number of command objects in the LinkedBlockingQueue.

Returns:
number of command objects in the LinkedBlockingQueue

com.wowza.wms.vhost
Class VHostItem

```
java.lang.Object
    │
    +-com.wowza.wms.vhost.VHostItem
```

public class **VHostItem**
extends Object

VHostItem: data class that hold definition of a virtual host.

Constructor Summary

public	**VHostItem**() Create empty vHostItem

Method Summary

String	**getConfigDir**() Get configuration path for vHost.
int	**getConnectionLimit**() Get connection limit of this vHost item.
String	**getName**() Get vHost name
WMSProperties	**getProperties**() Get properties
boolean	**isVisited**() Has this vHostItem been visited during load of VHosts.xml file.
void	**reset**() Reset vHostItem to empty state
void	**setConfigDir**(String configDir) Set configuration path for vHost.
void	**setConnectionLimit**(int connectionLimit) Set connection limit of this vHost item.
void	**setName**(String name) Set vHost name
void	**setProperties**(WMSProperties properties) Set properties
void	**setVisited**(boolean visited) Set is visited.
String	**toString**() Format vHost item

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

VHostItem

public **VHostItem**()

> Create empty vHostItem

Methods

reset

public void **reset**()

> Reset vHostItem to empty state

getConfigDir

public String **getConfigDir**()

> Get configuration path for vHost.
>
> #### Returns:
> > configuration path for vHost

setConfigDir

public void **setConfigDir**(String configDir)

> Set configuration path for vHost.
>
> #### Parameters:
> > `configDir` - configuration path for vHost

getName

public String **getName**()

> Get vHost name
>
> #### Returns:
> > vHost name

setName

public void **setName**(String name)

> Set vHost name
>
> #### Parameters:

name - vHost name

getProperties

`public` `WMSProperties` **`getProperties`**`()`

Get properties

Returns:
properties

setProperties

`public void` **`setProperties`**`(`WMSProperties` properties)`

Set properties

Parameters:
`properties` - properties

isVisited

`public boolean` **`isVisited`**`()`

Has this vHostItem been visited during load of VHosts.xml file. Internally used to track and delete vHost definitions on reload of VHosts.xml.

Returns:
Has this vHostItem been visited during load

setVisited

`public void` **`setVisited`**`(boolean visited)`

Set is visited.

Parameters:
`visited` - is visited

getConnectionLimit

`public int` **`getConnectionLimit`**`()`

Get connection limit of this vHost item.

Returns:
connection limit of this vHost item

setConnectionLimit

`public void` **`setConnectionLimit`**`(int connectionLimit)`

Set connection limit of this vHost item.

Parameters:
`connectionLimit` - connection limit of this vHost item

toString

```
public String toString()
```

Format vHost item

toString

```
public String toString()
```

Format vHost item

com.wowza.wms.vhost
Class VHostList

```
java.lang.Object
    |
    +-com.wowza.wms.vhost.VHostList
```

public class **VHostList**
extends Object

VHostList: list of VHost items. Result of parsing VHosts.xml at server startup or VHosts.xml reload. This interface can keep track of reloads and carefully mark items for deletion.

Constructor Summary

public	**VHostList**() Create empty vHostList

Method Summary

void	**addVHostItemListener**(IVHostItemNotify vHostItemListener) Add vHostItem listener.
java.util.List	**getVHostItems**() Get a list of vHostItems.
java.util.Map	**getVHostMap**() Get the Map of vHostItem defintions.
java.util.List	**getVHostNames**() Get a list of vHost names.
void	**loadConfig**()
void	**notifyVHostItemCreate**(VHostItem vhostItem) Notify vHostItem listener of item create.
void	**notifyVHostItemDestroy**(VHostItem vhostItem) Notify vHostItem listener of item destroy.
void	**notifyVHostItemUpdate**(VHostItem vhostItem) Notify vHostItem listener of item update.
void	**reloadConfig**() Reload VHosts.xml file.
void	**removeVHostItemListener**(IVHostItemNotify vHostItemListener) Remove vHostItem listener.

Methods inherited from class java.lang.Object

clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait, wait

Constructors

VHostList

public **VHostList**()

> Create empty vHostList

Methods

loadConfig

public void **loadConfig**()

reloadConfig

public void **reloadConfig**()

> Reload VHosts.xml file.

getVHostMap

public java.util.Map **getVHostMap**()

> Get the Map of vHostItem defintions.

> #### Returns:
> > Map of vHostItem defintions

addVHostItemListener

public void **addVHostItemListener**([IVHostItemNotify](#) vHostItemListener)

> Add vHostItem listener. vHostItem listeners will receive the following events: onVHostItemCreate, onVHostItemUpdate, onVHostItemDestroy.

> #### Parameters:
> > vHostItemListener - vHostItem listener

removeVHostItemListener

public void **removeVHostItemListener**([IVHostItemNotify](#) vHostItemListener)

> Remove vHostItem listener.

> #### Parameters:
> > vHostItemListener - vHostItem listener

notifyVHostItemCreate

public void **notifyVHostItemCreate**([VHostItem](#) vhostItem)

> Notify vHostItem listener of item create.

Parameters:
    vhostItem - vHostItem

notifyVHostItemUpdate

public void **notifyVHostItemUpdate**(<u>VHostItem</u> vhostItem)

Notify vHostItem listener of item update.

Parameters:
    vhostItem - vHostItem

notifyVHostItemDestroy

public void **notifyVHostItemDestroy**(<u>VHostItem</u> vhostItem)

Notify vHostItem listener of item destroy.

Parameters:
    vhostItem - vHostItem

getVHostNames

public java.util.List **getVHostNames**()

Get a list of vHost names. Creates a copy of list.

Returns:
    list of vHost names

getVHostItems

public java.util.List **getVHostItems**()

Get a list of vHostItems. Create a shallow copy of list.

Returns:
    list of vHostItems

com.wowza.wms.vhost
Class VHostSingleton

```
java.lang.Object
   |
   +-com.wowza.wms.vhost.VHostSingleton
```

public class **VHostSingleton**
extends Object

VHostSingleton: singleton that provide access to running vHosts.

Constructor Summary

public	**VHostSingleton**()

Method Summary

static void	**addVHostListener**(IVHostNotify vhostListener) Add a vHost listener.
static IVHost	**getInstance**(String vhostName) Get vHost by name.
static IVHost	**getInstance**(String vhostName, boolean doCreate) Get vHost by name.
static java.util.List	**getVHostNames**() Get a list of vHost names.
static void	**init**(String vhostName, String configHome) Initialize vhost by name.
static void	**notifyVHostClientConnect**(IVHost vhost, IClient inClient, com.wowza.wms.request.RequestFunction function, AMFDataList params) Notify vhost client connect
static void	**notifyVHostCreate**(IVHost vhost) Notify vHost listener of create.
static void	**notifyVHostInit**(IVHost vhost) Notify vHost listener of ini.
static void	**notifyVHostShutdownComplete**(IVHost vhost) Notify vHost listener of destruction.
static void	**notifyVHostShutdownStart**(IVHost vhost) Notify vHost listener of destruction.
static void	**remove**(String vhostName) Remove a vHost from list of running vHosts.
static void	**removeApplicationListener**(IVHostNotify vhostListener) Remove vHost listener

static void	setServer(IServer server)
	Set a reference to the current running server.
static void	shutdown(String vhostName)
	Shutdown a vHost by name.

Methods inherited from class `java.lang.Object`

```
clone, equals, finalize, getClass, hashCode, notify, notifyAll, toString, wait, wait,
wait
```

Constructors

VHostSingleton

public **VHostSingleton**()

Methods

getInstance

public static IVHost **getInstance**(String vhostName)

Get vHost by name. Do NOT create if does not exist.

Parameters:
vhostName - vHost name

Returns:
vHost

getInstance

public static IVHost **getInstance**(String vhostName,
        boolean doCreate)

Get vHost by name. Create if does not exist.

Parameters:
vhostName - vhost name
doCreate - if true, create if does not exist

Returns:
vHost

init

public static void **init**(String vhostName,
        String configHome)

Initialize vhost by name.

Parameters:
vhostName - vHost name

configHome - configuration path, path to VHost.xml

setServer

public static void **setServer**([IServer](#) server)

Set a reference to the current running server.

Parameters:
server - server

shutdown

public static void **shutdown**(String vhostName)

Shutdown a vHost by name.

Parameters:
vhostName - vhost name

getVHostNames

public static java.util.List **getVHostNames**()

Get a list of vHost names. Return copy of list.

Returns:
vHost names

remove

public static void **remove**(String vhostName)

Remove a vHost from list of running vHosts.

Parameters:
vhostName - vhost name

addVHostListener

public static void **addVHostListener**([IVHostNotify](#) vhostListener)

Add a vHost listener. A vHost listener receives the following events: onVHostCreate, onVHostInit, onVHostDestroy

Parameters:
vhostListener - vHost listener

removeApplicationListener

public static void **removeApplicationListener**([IVHostNotify](#) vhostListener)

Remove vHost listener

Parameters:
vhostListener - vHost listener

notifyVHostClientConnect

```
public static void notifyVHostClientConnect(IVHost vhost,
        IClient inClient,
        com.wowza.wms.request.RequestFunction function,
        AMFDataList params)
```

Notify vhost client connect

Parameters:

vhost - vHost
inClient - client
function - function
params - parameters

notifyVHostCreate

```
public static void notifyVHostCreate(IVHost vhost)
```

Notify vHost listener of create.

Parameters:

vhost - vHost

notifyVHostInit

```
public static void notifyVHostInit(IVHost vhost)
```

Notify vHost listener of ini.

Parameters:

vhost - vHost

notifyVHostShutdownStart

```
public static void notifyVHostShutdownStart(IVHost vhost)
```

Notify vHost listener of destruction.

Parameters:

vhost - vHost

notifyVHostShutdownComplete

```
public static void notifyVHostShutdownComplete(IVHost vhost)
```

Notify vHost listener of destruction.

Parameters:

vhost - vHost

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