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| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | |  |
| [**PREV CLASS**](http://docs.google.com/javazoom/jl/decoder/Crc16.html)   [**NEXT CLASS**](http://docs.google.com/javazoom/jl/decoder/Decoder.Params.html) | [**FRAMES**](http://docs.google.com/index.html?javazoom/jl/decoder/Decoder.html)    [**NO FRAMES**](http://docs.google.com/Decoder.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | FIELD | [CONSTR](#1t3h5sf) | [METHOD](#4d34og8) | DETAIL: FIELD | [CONSTR](#17dp8vu) | [METHOD](#lnxbz9) |

## **javazoom.jl.decoder**

Class Decoder

java.lang.Object  
 **javazoom.jl.decoder.Decoder**

**All Implemented Interfaces:** [DecoderErrors](http://docs.google.com/javazoom/jl/decoder/DecoderErrors.html), [JavaLayerErrors](http://docs.google.com/javazoom/jl/decoder/JavaLayerErrors.html)

public class **Decoder**extends java.lang.Objectimplements [DecoderErrors](http://docs.google.com/javazoom/jl/decoder/DecoderErrors.html)

The Decoder class encapsulates the details of decoding an MPEG audio frame.

**Since:** 0.0.5 **Version:** 0.0.7 12/12/99

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| **Nested Class Summary** | |
| static class | [**Decoder.Params**](http://docs.google.com/javazoom/jl/decoder/Decoder.Params.html)            The Params class presents the customizable aspects of the decoder. |

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| **Field Summary** | |

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| **Fields inherited from interface javazoom.jl.decoder.**[**DecoderErrors**](http://docs.google.com/javazoom/jl/decoder/DecoderErrors.html) |
| [ILLEGAL\_SUBBAND\_ALLOCATION](http://docs.google.com/javazoom/jl/decoder/DecoderErrors.html#ILLEGAL_SUBBAND_ALLOCATION), [UNKNOWN\_ERROR](http://docs.google.com/javazoom/jl/decoder/DecoderErrors.html#UNKNOWN_ERROR), [UNSUPPORTED\_LAYER](http://docs.google.com/javazoom/jl/decoder/DecoderErrors.html#UNSUPPORTED_LAYER) |

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| **Fields inherited from interface javazoom.jl.decoder.**[**JavaLayerErrors**](http://docs.google.com/javazoom/jl/decoder/JavaLayerErrors.html) |
| [BITSTREAM\_ERROR](http://docs.google.com/javazoom/jl/decoder/JavaLayerErrors.html#BITSTREAM_ERROR), [DECODER\_ERROR](http://docs.google.com/javazoom/jl/decoder/JavaLayerErrors.html#DECODER_ERROR) |

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| **Constructor Summary** | |
| [**Decoder**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#Decoder())()            Creates a new Decoder instance with default parameters. |
| [**Decoder**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#Decoder(javazoom.jl.decoder.Decoder.Params))([Decoder.Params](http://docs.google.com/javazoom/jl/decoder/Decoder.Params.html) params0)            Creates a new Decoder instance with default parameters. |

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| **Method Summary** | |
| [Obuffer](http://docs.google.com/javazoom/jl/decoder/Obuffer.html) | [**decodeFrame**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#decodeFrame(javazoom.jl.decoder.Header,%20javazoom.jl.decoder.Bitstream))([Header](http://docs.google.com/javazoom/jl/decoder/Header.html) header, [Bitstream](http://docs.google.com/javazoom/jl/decoder/Bitstream.html) stream)            Decodes one frame from an MPEG audio bitstream. |
| static [Decoder.Params](http://docs.google.com/javazoom/jl/decoder/Decoder.Params.html) | [**getDefaultParams**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#getDefaultParams())() |
| int | [**getOutputBlockSize**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#getOutputBlockSize())()            Retrieves the maximum number of samples that will be written to the output buffer when one frame is decoded. |
| int | [**getOutputChannels**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#getOutputChannels())()            Retrieves the number of channels of PCM samples output by this decoder. |
| int | [**getOutputFrequency**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#getOutputFrequency())()            Retrieves the sample frequency of the PCM samples output by this decoder. |
| protected  [DecoderException](http://docs.google.com/javazoom/jl/decoder/DecoderException.html) | [**newDecoderException**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#newDecoderException(int))(int errorcode) |
| protected  [DecoderException](http://docs.google.com/javazoom/jl/decoder/DecoderException.html) | [**newDecoderException**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#newDecoderException(int,%20java.lang.Throwable))(int errorcode, java.lang.Throwable throwable) |
| protected  [FrameDecoder](http://docs.google.com/javazoom/jl/decoder/FrameDecoder.html) | [**retrieveDecoder**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#retrieveDecoder(javazoom.jl.decoder.Header,%20javazoom.jl.decoder.Bitstream,%20int))([Header](http://docs.google.com/javazoom/jl/decoder/Header.html) header, [Bitstream](http://docs.google.com/javazoom/jl/decoder/Bitstream.html) stream, int layer) |
| void | [**setEqualizer**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#setEqualizer(javazoom.jl.decoder.Equalizer))([Equalizer](http://docs.google.com/javazoom/jl/decoder/Equalizer.html) eq) |
| void | [**setOutputBuffer**](http://docs.google.com/javazoom/jl/decoder/Decoder.html#setOutputBuffer(javazoom.jl.decoder.Obuffer))([Obuffer](http://docs.google.com/javazoom/jl/decoder/Obuffer.html) out)            Changes the output buffer. |

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

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| **Constructor Detail** |

### Decoder

public **Decoder**()

Creates a new Decoder instance with default parameters.

### Decoder

public **Decoder**([Decoder.Params](http://docs.google.com/javazoom/jl/decoder/Decoder.Params.html) params0)

Creates a new Decoder instance with default parameters.

**Parameters:**params - The Params instance that describes the customizable aspects of the decoder.

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| **Method Detail** |

### getDefaultParams

public static [Decoder.Params](http://docs.google.com/javazoom/jl/decoder/Decoder.Params.html) **getDefaultParams**()

### setEqualizer

public void **setEqualizer**([Equalizer](http://docs.google.com/javazoom/jl/decoder/Equalizer.html) eq)

### decodeFrame

public [Obuffer](http://docs.google.com/javazoom/jl/decoder/Obuffer.html) **decodeFrame**([Header](http://docs.google.com/javazoom/jl/decoder/Header.html) header,  
 [Bitstream](http://docs.google.com/javazoom/jl/decoder/Bitstream.html) stream)  
 throws [DecoderException](http://docs.google.com/javazoom/jl/decoder/DecoderException.html)

Decodes one frame from an MPEG audio bitstream.

**Parameters:**header - The header describing the frame to decode.bitstream - The bistream that provides the bits for te body of the frame. **Returns:**A SampleBuffer containing the decoded samples. **Throws:** [DecoderException](http://docs.google.com/javazoom/jl/decoder/DecoderException.html)

### setOutputBuffer

public void **setOutputBuffer**([Obuffer](http://docs.google.com/javazoom/jl/decoder/Obuffer.html) out)

Changes the output buffer. This will take effect the next time decodeFrame() is called.

### getOutputFrequency

public int **getOutputFrequency**()

Retrieves the sample frequency of the PCM samples output by this decoder. This typically corresponds to the sample rate encoded in the MPEG audio stream.

**Parameters:**the - sample rate (in Hz) of the samples written to the output buffer when decoding.

### getOutputChannels

public int **getOutputChannels**()

Retrieves the number of channels of PCM samples output by this decoder. This usually corresponds to the number of channels in the MPEG audio stream, although it may differ.

**Returns:**The number of output channels in the decoded samples: 1 for mono, or 2 for stereo.

### getOutputBlockSize

public int **getOutputBlockSize**()

Retrieves the maximum number of samples that will be written to the output buffer when one frame is decoded. This can be used to help calculate the size of other buffers whose size is based upon the number of samples written to the output buffer. NB: this is an upper bound and fewer samples may actually be written, depending upon the sample rate and number of channels.

**Returns:**The maximum number of samples that are written to the output buffer when decoding a single frame of MPEG audio.

### newDecoderException

protected [DecoderException](http://docs.google.com/javazoom/jl/decoder/DecoderException.html) **newDecoderException**(int errorcode)

### newDecoderException

protected [DecoderException](http://docs.google.com/javazoom/jl/decoder/DecoderException.html) **newDecoderException**(int errorcode,  
 java.lang.Throwable throwable)

### retrieveDecoder

protected [FrameDecoder](http://docs.google.com/javazoom/jl/decoder/FrameDecoder.html) **retrieveDecoder**([Header](http://docs.google.com/javazoom/jl/decoder/Header.html) header,  
 [Bitstream](http://docs.google.com/javazoom/jl/decoder/Bitstream.html) stream,  
 int layer)  
 throws [DecoderException](http://docs.google.com/javazoom/jl/decoder/DecoderException.html)

**Throws:** [DecoderException](http://docs.google.com/javazoom/jl/decoder/DecoderException.html)

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| |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | |  |
| [**PREV CLASS**](http://docs.google.com/javazoom/jl/decoder/Crc16.html)   [**NEXT CLASS**](http://docs.google.com/javazoom/jl/decoder/Decoder.Params.html) | [**FRAMES**](http://docs.google.com/index.html?javazoom/jl/decoder/Decoder.html)    [**NO FRAMES**](http://docs.google.com/Decoder.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
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