| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/AudioFileFormat.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV CLASS   [**NEXT CLASS**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) | [**FRAMES**](http://docs.google.com/index.html?javax/sound/sampled/AudioFileFormat.html)    [**NO FRAMES**](http://docs.google.com/AudioFileFormat.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | FIELD | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#3rdcrjn) |

## **javax.sound.sampled**

Class AudioFileFormat

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 **javax.sound.sampled.AudioFileFormat**

public class **AudioFileFormat**extends [Object](http://docs.google.com/java/lang/Object.html)

An instance of the AudioFileFormat class describes an audio file, including the file type, the file's length in bytes, the length in sample frames of the audio data contained in the file, and the format of the audio data.

The [AudioSystem](http://docs.google.com/javax/sound/sampled/AudioSystem.html) class includes methods for determining the format of an audio file, obtaining an audio input stream from an audio file, and writing an audio file from an audio input stream.

An AudioFileFormat object can include a set of properties. A property is a pair of key and value: the key is of type String, the associated property value is an arbitrary object. Properties specify additional informational meta data (like a author, copyright, or file duration). Properties are optional information, and file reader and file writer implementations are not required to provide or recognize properties.

The following table lists some common properties that should be used in implementations:

| Property key | Value type | Description |
| --- | --- | --- |
| "duration" | [Long](http://docs.google.com/java/lang/Long.html) | playback duration of the file in microseconds |
| "author" | [String](http://docs.google.com/java/lang/String.html) | name of the author of this file |
| "title" | [String](http://docs.google.com/java/lang/String.html) | title of this file |
| "copyright" | [String](http://docs.google.com/java/lang/String.html) | copyright message |
| "date" | [Date](http://docs.google.com/java/util/Date.html) | date of the recording or release |
| "comment" | [String](http://docs.google.com/java/lang/String.html) | an arbitrary text |

**Since:** 1.3 **See Also:**[AudioInputStream](http://docs.google.com/javax/sound/sampled/AudioInputStream.html)

| **Nested Class Summary** | |
| --- | --- |
| static class | [**AudioFileFormat.Type**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html)            An instance of the Type class represents one of the standard types of audio file. |

| **Constructor Summary** | |
| --- | --- |
|  | [**AudioFileFormat**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#AudioFileFormat(javax.sound.sampled.AudioFileFormat.Type,%20javax.sound.sampled.AudioFormat,%20int))([AudioFileFormat.Type](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) type, [AudioFormat](http://docs.google.com/javax/sound/sampled/AudioFormat.html) format, int frameLength)            Constructs an audio file format object. |
|  | [**AudioFileFormat**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#AudioFileFormat(javax.sound.sampled.AudioFileFormat.Type,%20javax.sound.sampled.AudioFormat,%20int,%20java.util.Map))([AudioFileFormat.Type](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) type, [AudioFormat](http://docs.google.com/javax/sound/sampled/AudioFormat.html) format, int frameLength, [Map](http://docs.google.com/java/util/Map.html)<[String](http://docs.google.com/java/lang/String.html),[Object](http://docs.google.com/java/lang/Object.html)> properties)            Construct an audio file format object with a set of defined properties. |
| protected | [**AudioFileFormat**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#AudioFileFormat(javax.sound.sampled.AudioFileFormat.Type,%20int,%20javax.sound.sampled.AudioFormat,%20int))([AudioFileFormat.Type](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) type, int byteLength, [AudioFormat](http://docs.google.com/javax/sound/sampled/AudioFormat.html) format, int frameLength)            Constructs an audio file format object. |

| **Method Summary** | |
| --- | --- |
| int | [**getByteLength**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#getByteLength())()            Obtains the size in bytes of the entire audio file (not just its audio data). |
| [AudioFormat](http://docs.google.com/javax/sound/sampled/AudioFormat.html) | [**getFormat**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#getFormat())()            Obtains the format of the audio data contained in the audio file. |
| int | [**getFrameLength**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#getFrameLength())()            Obtains the length of the audio data contained in the file, expressed in sample frames. |
| [Object](http://docs.google.com/java/lang/Object.html) | [**getProperty**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#getProperty(java.lang.String))([String](http://docs.google.com/java/lang/String.html) key)            Obtain the property value specified by the key. |
| [AudioFileFormat.Type](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) | [**getType**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#getType())()            Obtains the audio file type, such as WAVE or AU. |
| [Map](http://docs.google.com/java/util/Map.html)<[String](http://docs.google.com/java/lang/String.html),[Object](http://docs.google.com/java/lang/Object.html)> | [**properties**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#properties())()            Obtain an unmodifiable map of properties. |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#toString())()            Provides a string representation of the file format. |

| **Methods inherited from class java.lang.**[**Object**](http://docs.google.com/java/lang/Object.html) |
| --- |
| [clone](http://docs.google.com/java/lang/Object.html#clone()), [equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [hashCode](http://docs.google.com/java/lang/Object.html#hashCode()), [notify](http://docs.google.com/java/lang/Object.html#notify()), [notifyAll](http://docs.google.com/java/lang/Object.html#notifyAll()), [wait](http://docs.google.com/java/lang/Object.html#wait()), [wait](http://docs.google.com/java/lang/Object.html#wait(long)), [wait](http://docs.google.com/java/lang/Object.html#wait(long,%20int)) |

| **Constructor Detail** |
| --- |

### AudioFileFormat

protected **AudioFileFormat**([AudioFileFormat.Type](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) type,  
 int byteLength,  
 [AudioFormat](http://docs.google.com/javax/sound/sampled/AudioFormat.html) format,  
 int frameLength)

Constructs an audio file format object. This protected constructor is intended for use by providers of file-reading services when returning information about an audio file or about supported audio file formats.

**Parameters:**type - the type of the audio filebyteLength - the length of the file in bytes, or AudioSystem.NOT\_SPECIFIEDformat - the format of the audio data contained in the fileframeLength - the audio data length in sample frames, or AudioSystem.NOT\_SPECIFIED**See Also:**[getType()](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#getType())

### AudioFileFormat

public **AudioFileFormat**([AudioFileFormat.Type](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) type,  
 [AudioFormat](http://docs.google.com/javax/sound/sampled/AudioFormat.html) format,  
 int frameLength)

Constructs an audio file format object. This public constructor may be used by applications to describe the properties of a requested audio file.

**Parameters:**type - the type of the audio fileformat - the format of the audio data contained in the fileframeLength - the audio data length in sample frames, or AudioSystem.NOT\_SPECIFIED

### AudioFileFormat

public **AudioFileFormat**([AudioFileFormat.Type](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) type,  
 [AudioFormat](http://docs.google.com/javax/sound/sampled/AudioFormat.html) format,  
 int frameLength,  
 [Map](http://docs.google.com/java/util/Map.html)<[String](http://docs.google.com/java/lang/String.html),[Object](http://docs.google.com/java/lang/Object.html)> properties)

Construct an audio file format object with a set of defined properties. This public constructor may be used by applications to describe the properties of a requested audio file. The properties map will be copied to prevent any changes to it.

**Parameters:**type - the type of the audio fileformat - the format of the audio data contained in the fileframeLength - the audio data length in sample frames, or AudioSystem.NOT\_SPECIFIEDproperties - a Map<String,Object> object with properties**Since:** 1.5

| **Method Detail** |
| --- |

### getType

public [AudioFileFormat.Type](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) **getType**()

Obtains the audio file type, such as WAVE or AU.

**Returns:**the audio file type**See Also:**[AudioFileFormat.Type.WAVE](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html#WAVE), [AudioFileFormat.Type.AU](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html#AU), [AudioFileFormat.Type.AIFF](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html#AIFF), [AudioFileFormat.Type.AIFC](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html#AIFC), [AudioFileFormat.Type.SND](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html#SND)

### getByteLength

public int **getByteLength**()

Obtains the size in bytes of the entire audio file (not just its audio data).

**Returns:**the audio file length in bytes**See Also:**[AudioSystem.NOT\_SPECIFIED](http://docs.google.com/javax/sound/sampled/AudioSystem.html#NOT_SPECIFIED)

### getFormat

public [AudioFormat](http://docs.google.com/javax/sound/sampled/AudioFormat.html) **getFormat**()

Obtains the format of the audio data contained in the audio file.

**Returns:**the audio data format

### getFrameLength

public int **getFrameLength**()

Obtains the length of the audio data contained in the file, expressed in sample frames.

**Returns:**the number of sample frames of audio data in the file**See Also:**[AudioSystem.NOT\_SPECIFIED](http://docs.google.com/javax/sound/sampled/AudioSystem.html#NOT_SPECIFIED)

### properties

public [Map](http://docs.google.com/java/util/Map.html)<[String](http://docs.google.com/java/lang/String.html),[Object](http://docs.google.com/java/lang/Object.html)> **properties**()

Obtain an unmodifiable map of properties. The concept of properties is further explained in the [class description](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html).

**Returns:**a Map<String,Object> object containing all properties. If no properties are recognized, an empty map is returned.**Since:** 1.5 **See Also:**[getProperty(String)](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#getProperty(java.lang.String))

### getProperty

public [Object](http://docs.google.com/java/lang/Object.html) **getProperty**([String](http://docs.google.com/java/lang/String.html) key)

Obtain the property value specified by the key. The concept of properties is further explained in the [class description](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html).

If the specified property is not defined for a particular file format, this method returns null.

**Parameters:**key - the key of the desired property **Returns:**the value of the property with the specified key, or null if the property does not exist.**Since:** 1.5 **See Also:**[properties](http://docs.google.com/javax/sound/sampled/AudioFileFormat.html#properties)

### toString

public [String](http://docs.google.com/java/lang/String.html) **toString**()

Provides a string representation of the file format.

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**the file format as a string

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/AudioFileFormat.html) | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-files/index-1.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | --- | --- | | | ***Java™ Platform***  ***Standard Ed. 6*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| PREV CLASS   [**NEXT CLASS**](http://docs.google.com/javax/sound/sampled/AudioFileFormat.Type.html) | [**FRAMES**](http://docs.google.com/index.html?javax/sound/sampled/AudioFileFormat.html)    [**NO FRAMES**](http://docs.google.com/AudioFileFormat.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: [NESTED](#3znysh7) | FIELD | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#3rdcrjn) |

[Submit a bug or feature](http://bugs.sun.com/services/bugreport/index.jsp)

For further API reference and developer documentation, see [Java SE Developer Documentation](http://docs.google.com/webnotes/devdocs-vs-specs.html). That documentation contains more detailed, developer-targeted descriptions, with conceptual overviews, definitions of terms, workarounds, and working code examples.

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