| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/AudioFormat.Encoding.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**](http://docs.google.com/javax/sound/sampled/AudioFormat.html)   [**NEXT CLASS**](http://docs.google.com/javax/sound/sampled/AudioInputStream.html) | [**FRAMES**](http://docs.google.com/index.html?javax/sound/sampled/AudioFormat.Encoding.html)    [**NO FRAMES**](http://docs.google.com/AudioFormat.Encoding.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#26in1rg) | [METHOD](#35nkun2) |

## **javax.sound.sampled**

Class AudioFormat.Encoding

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

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

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

The Encoding class names the specific type of data representation used for an audio stream. The encoding includes aspects of the sound format other than the number of channels, sample rate, sample size, frame rate, frame size, and byte order.

One ubiquitous type of audio encoding is pulse-code modulation (PCM), which is simply a linear (proportional) representation of the sound waveform. With PCM, the number stored in each sample is proportional to the instantaneous amplitude of the sound pressure at that point in time. The numbers are frequently signed or unsigned integers. Besides PCM, other encodings include mu-law and a-law, which are nonlinear mappings of the sound amplitude that are often used for recording speech.

You can use a predefined encoding by referring to one of the static objects created by this class, such as PCM\_SIGNED or PCM\_UNSIGNED. Service providers can create new encodings, such as compressed audio formats or floating-point PCM samples, and make these available through the [AudioSystem](http://docs.google.com/javax/sound/sampled/AudioSystem.html) class.

The Encoding class is static, so that all AudioFormat objects that have the same encoding will refer to the same object (rather than different instances of the same class). This allows matches to be made by checking that two format's encodings are equal.

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

| **Field Summary** | |
| --- | --- |
| static [AudioFormat.Encoding](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html) | [**ALAW**](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html#ALAW)            Specifies a-law encoded data. |
| static [AudioFormat.Encoding](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html) | [**PCM\_SIGNED**](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html#PCM_SIGNED)            Specifies signed, linear PCM data. |
| static [AudioFormat.Encoding](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html) | [**PCM\_UNSIGNED**](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html#PCM_UNSIGNED)            Specifies unsigned, linear PCM data. |
| static [AudioFormat.Encoding](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html) | [**ULAW**](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html#ULAW)            Specifies u-law encoded data. |

| **Constructor Summary** | |
| --- | --- |
| [**AudioFormat.Encoding**](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html#AudioFormat.Encoding(java.lang.String))([String](http://docs.google.com/java/lang/String.html) name)            Constructs a new encoding. |

| **Method Summary** | |
| --- | --- |
| boolean | [**equals**](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html#equals(java.lang.Object))([Object](http://docs.google.com/java/lang/Object.html) obj)            Finalizes the equals method |
| int | [**hashCode**](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html#hashCode())()            Finalizes the hashCode method |
| [String](http://docs.google.com/java/lang/String.html) | [**toString**](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html#toString())()            Provides the String representation of the encoding. |

| **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()), [finalize](http://docs.google.com/java/lang/Object.html#finalize()), [getClass](http://docs.google.com/java/lang/Object.html#getClass()), [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)) |

| **Field Detail** |
| --- |

### PCM\_SIGNED

public static final [AudioFormat.Encoding](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html) **PCM\_SIGNED**

Specifies signed, linear PCM data.

### PCM\_UNSIGNED

public static final [AudioFormat.Encoding](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html) **PCM\_UNSIGNED**

Specifies unsigned, linear PCM data.

### ULAW

public static final [AudioFormat.Encoding](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html) **ULAW**

Specifies u-law encoded data.

### ALAW

public static final [AudioFormat.Encoding](http://docs.google.com/javax/sound/sampled/AudioFormat.Encoding.html) **ALAW**

Specifies a-law encoded data.

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

### AudioFormat.Encoding

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

Constructs a new encoding.

**Parameters:**name - the name of the new type of encoding

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

### equals

public final boolean **equals**([Object](http://docs.google.com/java/lang/Object.html) obj)

Finalizes the equals method

**Overrides:**[equals](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)) in class [Object](http://docs.google.com/java/lang/Object.html) **Parameters:**obj - the reference object with which to compare. **Returns:**true if this object is the same as the obj argument; false otherwise.**See Also:**[Object.hashCode()](http://docs.google.com/java/lang/Object.html#hashCode()), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### hashCode

public final int **hashCode**()

Finalizes the hashCode method

**Overrides:**[hashCode](http://docs.google.com/java/lang/Object.html#hashCode()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**a hash code value for this object.**See Also:**[Object.equals(java.lang.Object)](http://docs.google.com/java/lang/Object.html#equals(java.lang.Object)), [Hashtable](http://docs.google.com/java/util/Hashtable.html)

### toString

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

Provides the String representation of the encoding. This String is the same name that was passed to the constructor. For the predefined encodings, the name is similar to the encoding's variable (field) name. For example, PCM\_SIGNED.toString() returns the name "pcm\_signed".

**Overrides:**[toString](http://docs.google.com/java/lang/Object.html#toString()) in class [Object](http://docs.google.com/java/lang/Object.html) **Returns:**the encoding name

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/AudioFormat.Encoding.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*** |
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[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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