| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Instrument.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/midi/ControllerEventListener.html)   [**NEXT CLASS**](http://docs.google.com/javax/sound/midi/InvalidMidiDataException.html) | [**FRAMES**](http://docs.google.com/index.html?javax/sound/midi/Instrument.html)    [**NO FRAMES**](http://docs.google.com/Instrument.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#2s8eyo1) |

## **javax.sound.midi**

Class Instrument

[java.lang.Object](http://docs.google.com/java/lang/Object.html)  
 [javax.sound.midi.SoundbankResource](http://docs.google.com/javax/sound/midi/SoundbankResource.html)  
 **javax.sound.midi.Instrument**

public abstract class **Instrument**extends [SoundbankResource](http://docs.google.com/javax/sound/midi/SoundbankResource.html)

An instrument is a sound-synthesis algorithm with certain parameter settings, usually designed to emulate a specific real-world musical instrument or to achieve a specific sort of sound effect. Instruments are typically stored in collections called soundbanks. Before the instrument can be used to play notes, it must first be loaded onto a synthesizer, and then it must be selected for use on one or more channels, via a program-change command. MIDI notes that are subsequently received on those channels will be played using the sound of the selected instrument.

**See Also:**[Soundbank](http://docs.google.com/javax/sound/midi/Soundbank.html), [Soundbank.getInstruments()](http://docs.google.com/javax/sound/midi/Soundbank.html#getInstruments()), [Patch](http://docs.google.com/javax/sound/midi/Patch.html), [Synthesizer.loadInstrument(Instrument)](http://docs.google.com/javax/sound/midi/Synthesizer.html#loadInstrument(javax.sound.midi.Instrument)), [MidiChannel.programChange(int, int)](http://docs.google.com/javax/sound/midi/MidiChannel.html#programChange(int,%20int))

| **Constructor Summary** | |
| --- | --- |
| protected | [**Instrument**](http://docs.google.com/javax/sound/midi/Instrument.html#Instrument(javax.sound.midi.Soundbank,%20javax.sound.midi.Patch,%20java.lang.String,%20java.lang.Class))([Soundbank](http://docs.google.com/javax/sound/midi/Soundbank.html) soundbank, [Patch](http://docs.google.com/javax/sound/midi/Patch.html) patch, [String](http://docs.google.com/java/lang/String.html) name, [Class](http://docs.google.com/java/lang/Class.html)<?> dataClass)            Constructs a new MIDI instrument from the specified Patch. |

| **Method Summary** | |
| --- | --- |
| [Patch](http://docs.google.com/javax/sound/midi/Patch.html) | [**getPatch**](http://docs.google.com/javax/sound/midi/Instrument.html#getPatch())()            Obtains the Patch object that indicates the bank and program numbers where this instrument is to be stored in the synthesizer. |

| **Methods inherited from class javax.sound.midi.**[**SoundbankResource**](http://docs.google.com/javax/sound/midi/SoundbankResource.html) |
| --- |
| [getData](http://docs.google.com/javax/sound/midi/SoundbankResource.html#getData()), [getDataClass](http://docs.google.com/javax/sound/midi/SoundbankResource.html#getDataClass()), [getName](http://docs.google.com/javax/sound/midi/SoundbankResource.html#getName()), [getSoundbank](http://docs.google.com/javax/sound/midi/SoundbankResource.html#getSoundbank()) |

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

### Instrument

protected **Instrument**([Soundbank](http://docs.google.com/javax/sound/midi/Soundbank.html) soundbank,  
 [Patch](http://docs.google.com/javax/sound/midi/Patch.html) patch,  
 [String](http://docs.google.com/java/lang/String.html) name,  
 [Class](http://docs.google.com/java/lang/Class.html)<?> dataClass)

Constructs a new MIDI instrument from the specified Patch. When a subsequent request is made to load the instrument, the sound bank will search its contents for this instrument's Patch, and the instrument will be loaded into the synthesizer at the bank and program location indicated by the Patch object.

**Parameters:**soundbank - sound bank containing the instrumentpatch - the patch of this instrumentname - the name of this instrumentdataClass - the class used to represent the sample's data.**See Also:**[Synthesizer.loadInstrument(Instrument)](http://docs.google.com/javax/sound/midi/Synthesizer.html#loadInstrument(javax.sound.midi.Instrument))

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

### getPatch

public [Patch](http://docs.google.com/javax/sound/midi/Patch.html) **getPatch**()

Obtains the Patch object that indicates the bank and program numbers where this instrument is to be stored in the synthesizer.

**Returns:**this instrument's patch

| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Instrument.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/midi/ControllerEventListener.html)   [**NEXT CLASS**](http://docs.google.com/javax/sound/midi/InvalidMidiDataException.html) | [**FRAMES**](http://docs.google.com/index.html?javax/sound/midi/Instrument.html)    [**NO FRAMES**](http://docs.google.com/Instrument.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#1t3h5sf) | [METHOD](#2s8eyo1) |

[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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