| | [**Overview**](http://docs.google.com/overview-summary.html) | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Use**](http://docs.google.com/class-use/Patch.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/MidiUnavailableException.html)   [**NEXT CLASS**](http://docs.google.com/javax/sound/midi/Receiver.html) | [**FRAMES**](http://docs.google.com/index.html?javax/sound/midi/Patch.html)    [**NO FRAMES**](http://docs.google.com/Patch.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | FIELD | [CONSTR](#3znysh7) | [METHOD](#2et92p0) | DETAIL: FIELD | [CONSTR](#3dy6vkm) | [METHOD](#4d34og8) |

## **javax.sound.midi**

Class Patch

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

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

A Patch object represents a location, on a MIDI synthesizer, into which a single instrument is stored (loaded). Every Instrument object has its own Patch object that specifies the memory location into which that instrument should be loaded. The location is specified abstractly by a bank index and a program number (not by any scheme that directly refers to a specific address or offset in RAM). This is a hierarchical indexing scheme: MIDI provides for up to 16384 banks, each of which contains up to 128 program locations. For example, a minimal sort of synthesizer might have only one bank of instruments, and only 32 instruments (programs) in that bank.

To select what instrument should play the notes on a particular MIDI channel, two kinds of MIDI message are used that specify a patch location: a bank-select command, and a program-change channel command. The Java Sound equivalent is the [programChange(int, int)](http://docs.google.com/javax/sound/midi/MidiChannel.html#programChange(int,%20int)) method of MidiChannel.

**See Also:**[Instrument](http://docs.google.com/javax/sound/midi/Instrument.html), [Instrument.getPatch()](http://docs.google.com/javax/sound/midi/Instrument.html#getPatch()), [MidiChannel.programChange(int, int)](http://docs.google.com/javax/sound/midi/MidiChannel.html#programChange(int,%20int)), [Synthesizer.loadInstruments(Soundbank, Patch[])](http://docs.google.com/javax/sound/midi/Synthesizer.html#loadInstruments(javax.sound.midi.Soundbank,%20javax.sound.midi.Patch%5B%5D)), [Soundbank](http://docs.google.com/javax/sound/midi/Soundbank.html), [Sequence.getPatchList()](http://docs.google.com/javax/sound/midi/Sequence.html#getPatchList())

| **Constructor Summary** | |
| --- | --- |
| [**Patch**](http://docs.google.com/javax/sound/midi/Patch.html#Patch(int,%20int))(int bank, int program)            Constructs a new patch object from the specified bank and program numbers. |

| **Method Summary** | |
| --- | --- |
| int | [**getBank**](http://docs.google.com/javax/sound/midi/Patch.html#getBank())()            Returns the number of the bank that contains the instrument whose location this Patch specifies. |
| int | [**getProgram**](http://docs.google.com/javax/sound/midi/Patch.html#getProgram())()            Returns the index, within a bank, of the instrument whose location this Patch specifies. |

| **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** |
| --- |

### Patch

public **Patch**(int bank,  
 int program)

Constructs a new patch object from the specified bank and program numbers.

**Parameters:**bank - the bank index (in the range from 0 to 16383)program - the program index (in the range from 0 to 127)

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

### getBank

public int **getBank**()

Returns the number of the bank that contains the instrument whose location this Patch specifies.

**Returns:**the bank number, whose range is from 0 to 16383**See Also:**[MidiChannel.programChange(int, int)](http://docs.google.com/javax/sound/midi/MidiChannel.html#programChange(int,%20int))

### getProgram

public int **getProgram**()

Returns the index, within a bank, of the instrument whose location this Patch specifies.

**Returns:**the instrument's program number, whose range is from 0 to 127**See Also:**[MidiChannel.getProgram()](http://docs.google.com/javax/sound/midi/MidiChannel.html#getProgram()), [MidiChannel.programChange(int)](http://docs.google.com/javax/sound/midi/MidiChannel.html#programChange(int)), [MidiChannel.programChange(int, int)](http://docs.google.com/javax/sound/midi/MidiChannel.html#programChange(int,%20int))

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