| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.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 PACKAGE**](http://docs.google.com/javax/security/sasl/package-summary.html)   [**NEXT PACKAGE**](http://docs.google.com/javax/sound/midi/spi/package-summary.html) | [**FRAMES**](http://docs.google.com/index.html?javax/sound/midi/package-summary.html)    [**NO FRAMES**](http://docs.google.com/package-summary.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

## Package javax.sound.midi

Provides interfaces and classes for I/O, sequencing, and synthesis of MIDI (Musical Instrument Digital Interface) data.

**See:**

[**Description**](#3znysh7)

| **Interface Summary** | |
| --- | --- |
| [**ControllerEventListener**](http://docs.google.com/javax/sound/midi/ControllerEventListener.html) | The ControllerEventListener interface should be implemented by classes whose instances need to be notified when a Sequencer has processed a requested type of MIDI control-change event. |
| [**MetaEventListener**](http://docs.google.com/javax/sound/midi/MetaEventListener.html) | The MetaEventListener interface should be implemented by classes whose instances need to be notified when a [Sequencer](http://docs.google.com/javax/sound/midi/Sequencer.html) has processed a [MetaMessage](http://docs.google.com/javax/sound/midi/MetaMessage.html). |
| [**MidiChannel**](http://docs.google.com/javax/sound/midi/MidiChannel.html) | A MidiChannel object represents a single MIDI channel. |
| [**MidiDevice**](http://docs.google.com/javax/sound/midi/MidiDevice.html) | MidiDevice is the base interface for all MIDI devices. |
| [**Receiver**](http://docs.google.com/javax/sound/midi/Receiver.html) | A Receiver receives [MidiEvent](http://docs.google.com/javax/sound/midi/MidiEvent.html) objects and typically does something useful in response, such as interpreting them to generate sound or raw MIDI output. |
| [**Sequencer**](http://docs.google.com/javax/sound/midi/Sequencer.html) | A hardware or software device that plays back a MIDI [sequence](http://docs.google.com/javax/sound/midi/Sequence.html) is known as a *sequencer*. |
| [**Soundbank**](http://docs.google.com/javax/sound/midi/Soundbank.html) | A Soundbank contains a set of Instruments that can be loaded into a Synthesizer. |
| [**Synthesizer**](http://docs.google.com/javax/sound/midi/Synthesizer.html) | A Synthesizer generates sound. |
| [**Transmitter**](http://docs.google.com/javax/sound/midi/Transmitter.html) | A Transmitter sends [MidiEvent](http://docs.google.com/javax/sound/midi/MidiEvent.html) objects to one or more [Receivers](http://docs.google.com/javax/sound/midi/Receiver.html). |

| **Class Summary** | |
| --- | --- |
| [**Instrument**](http://docs.google.com/javax/sound/midi/Instrument.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. |
| [**MetaMessage**](http://docs.google.com/javax/sound/midi/MetaMessage.html) | A MetaMessage is a [MidiMessage](http://docs.google.com/javax/sound/midi/MidiMessage.html) that is not meaningful to synthesizers, but that can be stored in a MIDI file and interpreted by a sequencer program. |
| [**MidiDevice.Info**](http://docs.google.com/javax/sound/midi/MidiDevice.Info.html) | A MidiDevice.Info object contains assorted data about a [MidiDevice](http://docs.google.com/javax/sound/midi/MidiDevice.html), including its name, the company who created it, and descriptive text. |
| [**MidiEvent**](http://docs.google.com/javax/sound/midi/MidiEvent.html) | MIDI events contain a MIDI message and a corresponding time-stamp expressed in ticks, and can represent the MIDI event information stored in a MIDI file or a [Sequence](http://docs.google.com/javax/sound/midi/Sequence.html) object. |
| [**MidiFileFormat**](http://docs.google.com/javax/sound/midi/MidiFileFormat.html) | A MidiFileFormat object encapsulates a MIDI file's type, as well as its length and timing information. |
| [**MidiMessage**](http://docs.google.com/javax/sound/midi/MidiMessage.html) | MidiMessage is the base class for MIDI messages. |
| [**MidiSystem**](http://docs.google.com/javax/sound/midi/MidiSystem.html) | The MidiSystem class provides access to the installed MIDI system resources, including devices such as synthesizers, sequencers, and MIDI input and output ports. |
| [**Patch**](http://docs.google.com/javax/sound/midi/Patch.html) | A Patch object represents a location, on a MIDI synthesizer, into which a single instrument is stored (loaded). |
| [**Sequence**](http://docs.google.com/javax/sound/midi/Sequence.html) | A Sequence is a data structure containing musical information (often an entire song or composition) that can be played back by a [Sequencer](http://docs.google.com/javax/sound/midi/Sequencer.html) object. |
| [**Sequencer.SyncMode**](http://docs.google.com/javax/sound/midi/Sequencer.SyncMode.html) | A SyncMode object represents one of the ways in which a MIDI sequencer's notion of time can be synchronized with a master or slave device. |
| [**ShortMessage**](http://docs.google.com/javax/sound/midi/ShortMessage.html) | A ShortMessage contains a MIDI message that has at most two data bytes following its status byte. |
| [**SoundbankResource**](http://docs.google.com/javax/sound/midi/SoundbankResource.html) | A SoundbankResource represents any audio resource stored in a [Soundbank](http://docs.google.com/javax/sound/midi/Soundbank.html). |
| [**SysexMessage**](http://docs.google.com/javax/sound/midi/SysexMessage.html) | A SysexMessage object represents a MIDI system exclusive message. |
| [**Track**](http://docs.google.com/javax/sound/midi/Track.html) | A MIDI track is an independent stream of MIDI events (time-stamped MIDI data) that can be stored along with other tracks in a standard MIDI file. |
| [**VoiceStatus**](http://docs.google.com/javax/sound/midi/VoiceStatus.html) | A VoiceStatus object contains information about the current status of one of the voices produced by a [Synthesizer](http://docs.google.com/javax/sound/midi/Synthesizer.html). |

| **Exception Summary** | |
| --- | --- |
| [**InvalidMidiDataException**](http://docs.google.com/javax/sound/midi/InvalidMidiDataException.html) | An InvalidMidiDataException indicates that inappropriate MIDI data was encountered. |
| [**MidiUnavailableException**](http://docs.google.com/javax/sound/midi/MidiUnavailableException.html) | A MidiUnavailableException is thrown when a requested MIDI component cannot be opened or created because it is unavailable. |

## Package javax.sound.midi Description

Provides interfaces and classes for I/O, sequencing, and synthesis of MIDI (Musical Instrument Digital Interface) data.

## Related Documentation

For overviews, tutorials, examples, and guides, please see:

* [Sound](http://docs.google.com/technotes/guides/sound)

**Since:** 1.3

| | [**Overview**](http://docs.google.com/overview-summary.html) | **Package** | Class | [**Use**](http://docs.google.com/package-use.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 PACKAGE**](http://docs.google.com/javax/security/sasl/package-summary.html)   [**NEXT PACKAGE**](http://docs.google.com/javax/sound/midi/spi/package-summary.html) | [**FRAMES**](http://docs.google.com/index.html?javax/sound/midi/package-summary.html)    [**NO FRAMES**](http://docs.google.com/package-summary.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |

[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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