| | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [**PREV CLASS**](http://docs.google.com/JpegImagesToMovie.ImageSourceStream.html)   [**NEXT CLASS**](http://docs.google.com/ModelDisplay.html) | [**FRAMES**](http://docs.google.com/index.html?MidiPlayer.html)    [**NO FRAMES**](http://docs.google.com/MidiPlayer.html)     [**All Classes**](http://docs.google.com/allclasses-noframe.html) |
| SUMMARY: NESTED | [FIELD](#3znysh7) | [CONSTR](#2et92p0) | [METHOD](#tyjcwt) | DETAIL: [FIELD](#1t3h5sf) | [CONSTR](#1hmsyys) | [METHOD](#2grqrue) |

## Class MidiPlayer

[java.lang.Object](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true)  
 **MidiPlayer**

public class **MidiPlayer**extends [Object](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true)

Class that knows how to play notes using the midi standard Copyright 2004 Georgia Institute of Technology

**Author:** unknown Georgia Tech Students, Barbara Ericson

| **Field Summary** | |
| --- | --- |
| static int | [**ALTO\_SAX**](http://docs.google.com/MidiPlayer.html#ALTO_SAX) |
| static int | [**APPLAUSE**](http://docs.google.com/MidiPlayer.html#APPLAUSE) |
| static int | [**BASS**](http://docs.google.com/MidiPlayer.html#BASS) |
| static int | [**BIRD**](http://docs.google.com/MidiPlayer.html#BIRD) |
| static int | [**CELLO**](http://docs.google.com/MidiPlayer.html#CELLO) |
| static int | [**CLARINET**](http://docs.google.com/MidiPlayer.html#CLARINET) |
| static int | [**FLUTE**](http://docs.google.com/MidiPlayer.html#FLUTE) |
| static int | [**FRENCH\_HORN**](http://docs.google.com/MidiPlayer.html#FRENCH_HORN) |
| static int | [**GUITAR**](http://docs.google.com/MidiPlayer.html#GUITAR) |
| static int | [**HARMONICA**](http://docs.google.com/MidiPlayer.html#HARMONICA) |
| static int | [**HARP**](http://docs.google.com/MidiPlayer.html#HARP) |
| static int | [**HELICOPTER**](http://docs.google.com/MidiPlayer.html#HELICOPTER) |
| static int | [**ICE\_CUBE**](http://docs.google.com/MidiPlayer.html#ICE_CUBE) |
| static int | [**JAZZ\_GUITAR**](http://docs.google.com/MidiPlayer.html#JAZZ_GUITAR) |
| static int | [**MUSIC\_BOX**](http://docs.google.com/MidiPlayer.html#MUSIC_BOX) |
| static int | [**OBOE**](http://docs.google.com/MidiPlayer.html#OBOE) |
| static int | [**PIANO**](http://docs.google.com/MidiPlayer.html#PIANO) |
| static int | [**PICCOLO**](http://docs.google.com/MidiPlayer.html#PICCOLO) |
| static int | [**STEEL\_GUITAR**](http://docs.google.com/MidiPlayer.html#STEEL_GUITAR) |
| static int | [**TELEPHONE**](http://docs.google.com/MidiPlayer.html#TELEPHONE) |
| static int | [**TENOR\_SAX**](http://docs.google.com/MidiPlayer.html#TENOR_SAX) |
| static int | [**TIMPANI**](http://docs.google.com/MidiPlayer.html#TIMPANI) |
| static int | [**TROMBONE**](http://docs.google.com/MidiPlayer.html#TROMBONE) |
| static int | [**TRUMPET**](http://docs.google.com/MidiPlayer.html#TRUMPET) |
| static int | [**TUBA**](http://docs.google.com/MidiPlayer.html#TUBA) |
| static int | [**VIOLIN**](http://docs.google.com/MidiPlayer.html#VIOLIN) |
| static int | [**WHISTLE**](http://docs.google.com/MidiPlayer.html#WHISTLE) |
| static int | [**XYLOPHONE**](http://docs.google.com/MidiPlayer.html#XYLOPHONE) |

| **Constructor Summary** | |
| --- | --- |
| [**MidiPlayer**](http://docs.google.com/MidiPlayer.html#MidiPlayer())()            Constructor that takes no arguments |

| **Method Summary** | |
| --- | --- |
| void | [**cleanUp**](http://docs.google.com/MidiPlayer.html#cleanUp())()            Method to clean up the midi player |
| void | [**close**](http://docs.google.com/MidiPlayer.html#close())()            Method to close the midi player |
| void | [**getInstrumentNames**](http://docs.google.com/MidiPlayer.html#getInstrumentNames())()            Method to get the map of index number to instrument names |
| [Synthesizer](http://java.sun.com/javase/6/docs/api/javax/sound/midi/Synthesizer.html?is-external=true) | [**getSynthesizer**](http://docs.google.com/MidiPlayer.html#getSynthesizer())()            Method to return the synthesizer |
| void | [**playJingleBells**](http://docs.google.com/MidiPlayer.html#playJingleBells())()            Method to play Jingle Bells |
| void | [**playJingleBells4**](http://docs.google.com/MidiPlayer.html#playJingleBells4())()            Method to play the first 4 measures of jingle bells with each measure taking 1000 milliseconds (1 second) |
| void | [**playJingleBellsV1V2**](http://docs.google.com/MidiPlayer.html#playJingleBellsV1V2())()            Method to play the first verse of jingle bells with each measure taking 1000 milliseconds (1 second) It is in 2/4 time |
| void | [**playNote**](http://docs.google.com/MidiPlayer.html#playNote(int,%20int))(int note, int duration)            Method to play a note |
| void | [**playNote**](http://docs.google.com/MidiPlayer.html#playNote(int,%20int,%20int))(int note, int duration, int intensity)            Method to play a note |
| void | [**playNotesOnChannel**](http://docs.google.com/MidiPlayer.html#playNotesOnChannel(int,%20int%5B%5D,%20int%5B%5D,%20int%5B%5D))(int index, int[] notes, int[] durations, int[] intensities)            Method to play an array of notes with the given durations and intensities |
| void | [**rest**](http://docs.google.com/MidiPlayer.html#rest(int))(int duration)            Method to rest for a specified number of milliseconds |
| void | [**setChannel**](http://docs.google.com/MidiPlayer.html#setChannel(int))(int index)            Method to change the current channel |
| void | [**setInstrument**](http://docs.google.com/MidiPlayer.html#setInstrument(int))(int num)            Method to set the instrument to play |

| **Methods inherited from class java.lang.**[**Object**](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true) |
| --- |
| [clone](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#clone()), [equals](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#equals(java.lang.Object)), [finalize](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#finalize()), [getClass](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#getClass()), [hashCode](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#hashCode()), [notify](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#notify()), [notifyAll](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#notifyAll()), [toString](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#toString()), [wait](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#wait()), [wait](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#wait(long)), [wait](http://java.sun.com/javase/6/docs/api/java/lang/Object.html?is-external=true#wait(long,%20int)) |

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

### PIANO

public static final int **PIANO**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.PIANO)

### HARMONICA

public static final int **HARMONICA**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.HARMONICA)

### MUSIC\_BOX

public static final int **MUSIC\_BOX**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.MUSIC_BOX)

### XYLOPHONE

public static final int **XYLOPHONE**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.XYLOPHONE)

### GUITAR

public static final int **GUITAR**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.GUITAR)

### STEEL\_GUITAR

public static final int **STEEL\_GUITAR**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.STEEL_GUITAR)

### JAZZ\_GUITAR

public static final int **JAZZ\_GUITAR**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.JAZZ_GUITAR)

### BASS

public static final int **BASS**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.BASS)

### VIOLIN

public static final int **VIOLIN**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.VIOLIN)

### CELLO

public static final int **CELLO**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.CELLO)

### HARP

public static final int **HARP**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.HARP)

### TIMPANI

public static final int **TIMPANI**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.TIMPANI)

### TRUMPET

public static final int **TRUMPET**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.TRUMPET)

### TROMBONE

public static final int **TROMBONE**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.TROMBONE)

### TUBA

public static final int **TUBA**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.TUBA)

### FRENCH\_HORN

public static final int **FRENCH\_HORN**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.FRENCH_HORN)

### ALTO\_SAX

public static final int **ALTO\_SAX**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.ALTO_SAX)

### TENOR\_SAX

public static final int **TENOR\_SAX**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.TENOR_SAX)

### OBOE

public static final int **OBOE**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.OBOE)

### CLARINET

public static final int **CLARINET**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.CLARINET)

### PICCOLO

public static final int **PICCOLO**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.PICCOLO)

### FLUTE

public static final int **FLUTE**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.FLUTE)

### WHISTLE

public static final int **WHISTLE**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.WHISTLE)

### BIRD

public static final int **BIRD**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.BIRD)

### TELEPHONE

public static final int **TELEPHONE**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.TELEPHONE)

### HELICOPTER

public static final int **HELICOPTER**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.HELICOPTER)

### APPLAUSE

public static final int **APPLAUSE**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.APPLAUSE)

### ICE\_CUBE

public static final int **ICE\_CUBE**

**See Also:**[Constant Field Values](http://docs.google.com/constant-values.html#MidiPlayer.ICE_CUBE)

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

### MidiPlayer

public **MidiPlayer**()

Constructor that takes no arguments

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

### getSynthesizer

public [Synthesizer](http://java.sun.com/javase/6/docs/api/javax/sound/midi/Synthesizer.html?is-external=true) **getSynthesizer**()

Method to return the synthesizer

**Returns:**the synthesizer

### close

public void **close**()

Method to close the midi player

### cleanUp

public void **cleanUp**()

Method to clean up the midi player

### playNote

public void **playNote**(int note,  
 int duration,  
 int intensity)

Method to play a note

**Parameters:**note - the note to play (0 to 127, 60 is middle C)duration - how long to play the note in millisecondsintensity - how loud to play the note (how hard the key was struck on a piano)

### rest

public void **rest**(int duration)

Method to rest for a specified number of milliseconds

**Parameters:**duration - the amount to rest in milliseconds

### setChannel

public void **setChannel**(int index)

Method to change the current channel

**Parameters:**index - the index of the channel to use

### setInstrument

public void **setInstrument**(int num)

Method to set the instrument to play

**Parameters:**num - a number from 0 to 127 that represents the instruments

### getInstrumentNames

public void **getInstrumentNames**()

Method to get the map of index number to instrument names

### playNote

public void **playNote**(int note,  
 int duration)

Method to play a note

**Parameters:**note - the note to playduration - how long to play the note

### playNotesOnChannel

public void **playNotesOnChannel**(int index,  
 int[] notes,  
 int[] durations,  
 int[] intensities)

Method to play an array of notes with the given durations and intensities

**Parameters:**index - the index of the channel to usenotes - the array of notes to play (0-127)durations - the array of durations to use for playing the notes in millisecondsintensities - the array of intensities (loudness)

### playJingleBellsV1V2

public void **playJingleBellsV1V2**()

Method to play the first verse of jingle bells with each measure taking 1000 milliseconds (1 second) It is in 2/4 time

### playJingleBells

public void **playJingleBells**()

Method to play Jingle Bells

### playJingleBells4

public void **playJingleBells4**()

Method to play the first 4 measures of jingle bells with each measure taking 1000 milliseconds (1 second)

| | [**Package**](http://docs.google.com/package-summary.html) | **Class** | [**Tree**](http://docs.google.com/package-tree.html) | [**Deprecated**](http://docs.google.com/deprecated-list.html) | [**Index**](http://docs.google.com/index-all.html) | [**Help**](http://docs.google.com/help-doc.html) | | --- | --- | --- | --- | --- | --- | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
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