Table Of Content

Package it.denzosoft.mobile.common

Class Summary

BasicCanvas

BasicMIDlet

RecordStorage

Rectangle

---

it.denzosoft.mobile.common

Class BasicCanvas

```
java.lang.Object
    |
    +--Canvas
        |
        +--it.denzosoft.mobile.common.BasicCanvas
```

Direct Known Subclasses:
GameCanvas, MenuCanvas

< Fields > < Constructors > < Methods >

---

public class **BasicCanvas**
extends Canvas

Author:
De Sanctis

Fields

exitCommand

```
public final Command exitCommand
```

---

loggerCommand

```
public final Command loggerCommand
```

---

midlet

`protected BasicMIDlet midlet`

Holds value of property midlet.

Constructors

BasicCanvas

`public BasicCanvas(BasicMIDlet midlet)`

Creates a new instance of BasicCanvas

Methods

commandAction

```
public void commandAction(Command command,
                          Displayable displayable)
```

---

getMIDlet

`public BasicMIDlet getMIDlet()`

Getter for property midlet.

Returns:

Value of property midlet.

---

paint

`protected void paint(Graphics graphics)`

it.denzosoft.mobile.common

Class BasicMIDlet

```
java.lang.Object
    |
    +--MIDlet
        |
        +--it.denzosoft.mobile.common.BasicMIDlet
```

All Implemented Interfaces:
java.lang.Runnable

Direct Known Subclasses:
GameMIDlet

< Fields > < Constructors > < Methods >

---

public abstract class **BasicMIDlet**
extends MIDlet
implements java.lang.Runnable

Author:
De Sanctis

Version:

Fields

exitCommand

```
public final Command exitCommand
```

Constructors

BasicMIDlet

```
public  BasicMIDlet()
```

Creates a new instance of GameMIDlet

Methods

commandAction

```
public void commandAction(Command c,
                          Displayable displayable)
```

---

destroyApp

```
public void destroyApp(boolean unconditional)
```

---

exitMIDlet

```
public void exitMIDlet()
```

---

getDisplay

```
public Display getDisplay()
```

---

pauseApp

```
public void pauseApp()
```

---

run

```
public abstract void run()
```

---

startApp

```
public final void startApp()
```

---

it.denzosoft.mobile.common

Class RecordStorage

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.RecordStorage
```

< Constructors > < Methods >

---

public class **RecordStorage**
extends java.lang.Object

Author:

De Sanctis

Constructors

RecordStorage

```
public  RecordStorage(java.lang.String name)
```

Creates a new instance of RecordStorage

Methods

addRecord

```
public synchronized void addRecord(java.lang.String value)
```

---

close

```
public void close()
```

---

enumerate

```
public synchronized RecordEnumeration enumerate()
```

---

getName

```
public java.lang.String getName()
```

Getter for property name.

Returns:

Value of property name.

---

recordContent

```
public synchronized java.lang.String[] recordContent()
```

---

updateRecord

```
public synchronized void updateRecord(int recordId,
                                      java.lang.String value)
```

---

it.denzosoft.mobile.common

Class Rectangle

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.Rectangle
```

< Constructors > < Methods >

---

public class **Rectangle**
extends java.lang.Object

Author:

De Sanctis

Constructors

Rectangle

```
public  Rectangle(int top,
                  int left,
                  int width,
                  int height)
```

Creates a new instance of Rectangle

Methods

getHeight

```
public int getHeight()
```

Getter for property height.

Returns:

Value of property height.

---

getLeft

```
public int getLeft()
```

Getter for property left.

Returns:

Value of property left.

---

getTop

```
public int getTop()
```

Getter for property top.

Returns:

Value of property top.

---

getWidth

```
public int getWidth()
```

Getter for property width.

Returns:

Value of property width.

Package it.denzosoft.mobile.common.graphic

Class Summary

J2meGraphics

DOCUMENT ME!

---

it.denzosoft.mobile.common.graphic

Class J2meGraphics

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.graphic.J2meGraphics
```

All Implemented Interfaces:

Graphics

< Constructors > < Methods >

---

public class **J2meGraphics**
extends java.lang.Object
implements Graphics

DOCUMENT ME!

Author:

De Sanctis

Constructors

J2meGraphics

```
public  J2meGraphics(javax.microedition.lcdui.Graphics graphics)
```

Creates a new J2meGraphics object.

Parameters:

graphics - DOCUMENT ME!

Methods

clipRect

```
public void clipRect(int x,
                     int y,
                     int width,
                     int height)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!

---

drawArc

```
public void drawArc(int x,
                    int y,
                    int width,
                    int height,
                    int startAngle,
                    int arcAngle)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!
startAngle - DOCUMENT ME!
arcAngle - DOCUMENT ME!

---

drawChar

```
public void drawChar(char character,
                     int x,
                     int y)
```

DOCUMENT ME!

Parameters:

character - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawChars

```
public void drawChars(char[] data,
                      int offset,
                      int length,
                      int x,
                      int y)
```

DOCUMENT ME!

Parameters:

data - DOCUMENT ME!
offset - DOCUMENT ME!
length - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawImage

```
public void drawImage(Image img,
                      int x,
                      int y)
```

DOCUMENT ME!

Parameters:

img - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawLine

```
public void drawLine(int x1,
                     int y1,
                     int x2,
                     int y2)
```

DOCUMENT ME!

Parameters:

x1 - DOCUMENT ME!
y1 - DOCUMENT ME!
x2 - DOCUMENT ME!
y2 - DOCUMENT ME!

---

drawRect

```
public void drawRect(int x,
                     int y,
                     int width,
                     int height)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!

---

drawRoundRect

```
public void drawRoundRect(int x,
                          int y,
                          int width,
                          int height,
                          int arcWidth,
                          int arcHeight)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!
arcWidth - DOCUMENT ME!
arcHeight - DOCUMENT ME!

---

drawString

```
public void drawString(java.lang.String str,
                       int x,
                       int y)
```

DOCUMENT ME!

Parameters:

str - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawSubstring

```
public void drawSubstring(java.lang.String str,
                          int offset,
                          int len,
                          int x,
                          int y)
```

DOCUMENT ME!

Parameters:

str - DOCUMENT ME!
offset - DOCUMENT ME!
len - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

fillArc

```
public void fillArc(int x,
                    int y,
                    int width,
                    int height,
                    int startAngle,
                    int arcAngle)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!
startAngle - DOCUMENT ME!
arcAngle - DOCUMENT ME!

---

fillRect

```
public void fillRect(int x,
                     int y,
                     int width,
                     int height)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!

---

fillRoundRect

```
public void fillRoundRect(int x,
                          int y,
                          int width,
                          int height,
                          int arcWidth,
                          int arcHeight)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!
arcWidth - DOCUMENT ME!
arcHeight - DOCUMENT ME!

---

getBlueComponent

```
public int getBlueComponent()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getClipHeight

```
public int getClipHeight()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getClipWidth

```
public int getClipWidth()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getClipX

`public int` **`getClipX`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getClipY

`public int` **`getClipY`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getColor

`public int` **`getColor`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getFont

`public Font` **`getFont`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getGrayScale

`public int` **`getGrayScale`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getGreenComponent

`public int` **`getGreenComponent`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getRedComponent

`public int` **`getRedComponent`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getStrokeStyle

`public int` **`getStrokeStyle`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getTranslateX

`public int` **`getTranslateX`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getTranslateY

`public int` **`getTranslateY`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

setClip

```
public void setClip(int x,
                    int y,
                    int width,
                    int height)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!

---

setColor

```
public void setColor(int RGB)
```

DOCUMENT ME!

Parameters:

RGB - DOCUMENT ME!

---

setColor

```
public void setColor(int red,
                     int green,
                     int blue)
```

DOCUMENT ME!

Parameters:

red - DOCUMENT ME!
green - DOCUMENT ME!
blue - DOCUMENT ME!

---

setFont

```
public void setFont(Font font)
```

DOCUMENT ME!

Parameters:

font - DOCUMENT ME!

---

setGrayScale

```
public void setGrayScale(int grey)
```

DOCUMENT ME!

Parameters:

grey - DOCUMENT ME!

---

setStrokeStyle

```
public void setStrokeStyle(int style)
```

DOCUMENT ME!

Parameters:

style - DOCUMENT ME!

---

translate

```
public void translate(int x,
                      int y)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!

Package it.denzosoft.mobile.common.math

Class Summary

FixedPoint

---

it.denzosoft.mobile.common.math

Class FixedPoint

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.math.FixedPoint
```

< Fields > < Constructors > < Methods >

---

public class **FixedPoint**
extends java.lang.Object

Fields

E

`public static final int` **`E`**

HALF

`public static final int` **`HALF`**

PI

`public static final int` **`PI`**

PI_OVER_180

`public static final int` **`PI_OVER_180`**

PI_OVER_2

```
public static final int PI_OVER_2
```

---

xIntersect

```
public static int xIntersect
```

---

yIntersect

```
public static int yIntersect
```

Constructors

FixedPoint

```
public  FixedPoint()
```

Methods

ArcCos

```
public static int ArcCos(int f)
```

Compute ArcCos(f), 0 <= f <= 1

ArcSin

```
public static int ArcSin(int f)
```

Compute ArcSin(f), 0 <= f <= 1

ArcTan

```
public static int ArcTan(int f)
```

Computes ArcTan(f), f is a fixed point number |f| <= 1

For the inverse tangent calls, all approximations are valid for |t| <= 1. To compute ATAN(t) for t > 1, use ATAN(t) = PI/2 - ATAN(1/t). For t < -1, use ATAN(t) = -PI/2 - ATAN(1/t).

Cos

```
public static int Cos(int f)
```

Computes COS(f), f is a fixed point number in radians. 0 <= f <= PI/2

Div

```
public static int Div(int x,
                      int y)
```

Divides two fixed-point numbers

Exp

```
public static int Exp(int x)
```

Ln

```
public static int Ln(int x)
```

Mul

```
public static int Mul(int x,
                      int y)
```

Multiply two fixed-point numbers

Sin

```
public static int Sin(int f)
```

Computes SIN(f), f is a fixed point number in radians. 0 <= f <= 2PI

Sqrt

```
public static int Sqrt(int n)
```

Compute square-root of a 16:16 fixed point number

Tan

```
public static int Tan(int f)
```

---

intToFP

```
public static int intToFP(int x)
```

Convert an int to a 16:16 fixed-point

---

intersects

```
public static boolean intersects(int ax0,
                                 int ay0,
                                 int ax1,
                                 int ay1,
                                 int bx0,
                                 int by0,
                                 int bx1,
                                 int by1)
```

Does line segment A intersection line segment B? Assumes 16 bit fixed point numbers with 16 bits of fraction. For debugging, side effect xint, yint, the intersection point.

Algorithm

As an example of algorithm development, consider the intersection of two line segments. Given line segment A goes from point XA1 and YA1 to point XA2 and YA2 and given line segment B goes from point XB1 and YB1 to point XB2 and YB2. Find whether there is zero, one, or an infinite number of points of intersection (the line segments overlap) and the values of the points of intersection. Assume all numbers are double.

For case 1 where line segment A is not vertical, line segment B is not vertical, and line segment A is not parallel to line segment B, the equations for line segment A and B are:

XMA = (YA2-YA1)/(XA2-XA1) = slope of line segment A
XBA = YA1 - XA1*XMA = Y-intercept for line segment A
YA = XMA*XA + XBA

XMB = (YB2-YB1)/(XB2-XB1) = slope of line segment B
XBB = YB1 - XB1*XMB = Y-intercept for line segment B
YB = XMB*XB + XBB

At the intersection of line segment A and B, XA=XB=XINT and YA=YB=YINT.
YINT = XMA*XINT + XBA
YINT = XMB*XINT + XBB
XMA*XINT + XBA = XMB*XINT + XBB
XMA*XINT - XMB*XINT = XBB - XBA
XINT*(XMA-XMB) = XBB - XBA
XINT = (XBB-XBA)/(XMA-XMB)
YINT = XMA*XINT + XBA
There is one point of intersection.

For case 2 where line segment A is vertical (XA1 is close to XA2) and line segment B is not vertical, the equations for line segment A and B are:

XA = 0.5*(XA1+XA2)

XMB = (YB2-YB1)/(XB2-XB1) = slope of line segment B
XBB = YB1 - XB1*XMB = Y-intercept for line segment B

YB = XMB*XB + XBB

At the intersection of line segment A and B, XA=XB=XINT and YA=YB=YINT.
XINT = XA
YINT = XMB*XINT + XBB
There is one point of intersection.

For case 3 where line segment A is not vertical and line segment B is vertical (XB1 is close to XB2), the equations for line segment A and B are:

XMA = (YA2-YA1)/(XA2-XA1) = slope of line segment A
XBA = YA1 - XA1*XMA = Y-intercept for line segment A
YA = XMA*XA + XBA

XB= 0.5*(XB1+XB2)

At the intersection of line segment A and B, XA=XB=XINT and YA=YB=YINT.
XINT = XB
YINT = XMA*XINT + XBA
There is one point of intersection.

For case 4 where line segment A is vertical (XA1 is close to XA2) and line segment B is vertical (XB1 is close to XB2), the distance between the parallel line segments is:

DIST = ABS (0.5*(XA1+XA2) - 0.5*(XB1+XB2))

If DIST is close to zero, then:

XINT1 = 0.5*(0.5*(XA1+XA2)+0.5*(XB1+XB2))
YINT1 = MAX(MIN(YA1,YA2),MIN(YB1,YB2))
XINT2 = XINT1
YINT2 = MIN(MAX(YA1,YA2),MAX(YB1,YB2))
There are two points of intersection.

For case 5 where line segment A is not vertical, line segment B is not vertical, and line segment A is parallel to line segment B (XMA is close to XMB), the equations for line segment A and B are:

XMA = (YA2-YA1)/(XA2-XA1) = slope of line segment A
XBA = YA1 - XA1*XMA = Y-intercept for line segment A
YA = XMA*XA + XBA

XMB = (YB2-YB1)/(XB2-XB1) = slope of line segment B
XBB = YB1 - XB1*XMB = Y-intercept for line segment B
YB = XMB*XB + XBB

The distance between the parallel line segments is:

DIST = ABS(XBA-XBB)*COS(ATAN(0.5*(XMA+XMB)))

If DIST is close to zero, then:

XINT1 = MAX(MIN(XA1,XA2),MIN(XB1,XB2))

YINT1 = MAX(MIN(YA1,YA2),MIN(YB1,YB2))
XINT2 = MIN(MAX(XA1,XA2),MAX(XB1,XB2))
YINT2 = MIN(MAX(YA1,YA2),MAX(YB1,YB2))
There are two points of intersection.

After the point or points of intersection are calculated, each
solution must be checked to ensure that the point of intersection lies
on line segment A and B by checking if XINT >= MIN(XA1,XA2) and XINT
<= MAX(XA1,XA2) and YINT >= MIN(YA1,YA2) and YINT <= MAX(YA1,YA2) and
checking if XINT >= MIN(XB1,XB2) and XINT <= MAX(XB1,XB2) and YINT >=
MIN(XB1,XB2) and YINT <= MAX(YB1,YB2).

Note that case 2, 3, 4, and 5 are all special instances of case 1
where a division by zero would have caused the creation of an infinite
number and thus a program error.

---

round

`public static int` **`round`**`(int n)`

Round to nearest fixed poitn integer

---

toInt

`public static int` **`toInt`**`(int x)`

Convert a 16:16 fixed-point to an int

Package it.denzosoft.mobile.common.sound

Class Summary

MidiPlayer

DOCUMENT ME!

TonePlayer

DOCUMENT ME!

---

it.denzosoft.mobile.common.sound

Class MidiPlayer

```
java.lang.Object
    |
    +--TonePlayer
        |
        +--it.denzosoft.mobile.common.sound.MidiPlayer
```

All Implemented Interfaces:

Player, java.lang.Runnable

< Fields > < Constructors > < Methods >

---

public class **MidiPlayer**
extends TonePlayer

DOCUMENT ME!

Author:

De Sanctis

Fields

DRUM_CHANNEL

```
public static final int DRUM_CHANNEL
```

DOCUMENT ME!

Constructors

MidiPlayer

```
public  MidiPlayer()
```

Creates a new instance of MidiPlayer

Methods

channelVolume

```
public void channelVolume(int channel,
                          int volumen)
```

Change the volume for the given channel, To mute, set to 0.

Parameters:

channel - midi channel
volumen - volumen

---

close

```
public void close()
```

DOCUMENT ME!

Overrides:

close in class TonePlayer

---

getDefaultChannel

```
public int getDefaultChannel()
```

Getter for property defaultChannel.

Returns:

Value of property defaultChannel.

---

noteOff

```
public void noteOff(int channel,
                    int pitch)
```

Stop playing the note specified in the channel specified

Parameters:

channel - midi channel
pitch - pitch of a note

---

noteOn

```
public void noteOn(int channel,
                   int pitch,
                   int velocity)
```

Play the note specified in the channel specified.

Parameters:

channel - midi channel
pitch - pitch of a note
velocity - velocity of a note

---

open

```
public void open()
```

DOCUMENT ME!

Overrides:

open in class TonePlayer

---

playChord

```
public void playChord(it.denzosoft.multiplatform.sound.Note[] chord)
```

DOCUMENT ME!

Parameters:

chord - DOCUMENT ME!

Overrides:

playChord in class TonePlayer

---

playNote

```
public void playNote(Note note)
```

DOCUMENT ME!

Parameters:

note - DOCUMENT ME!

Overrides:

playNote in class TonePlayer

---

programChange

```
public void programChange(int channel,
                          int program)
```

Change the program of a channel.

Parameters:

channel - midi channel
program - the midi program

---

setDefaultChannel

```
public void setDefaultChannel(int defaultChannel)
```

Setter for property defaultChannel.

Parameters:

defaultChannel - New value of property defaultChannel.

---

it.denzosoft.mobile.common.sound

Class TonePlayer

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.sound.TonePlayer
```

All Implemented Interfaces:
Player, java.lang.Runnable

Direct Known Subclasses:
MidiPlayer

< Fields > < Constructors > < Methods >

---

public class **TonePlayer**
extends java.lang.Object

implements Player, java.lang.Runnable

DOCUMENT ME!

Author:

De Sanctis

Fields

active

```
protected boolean active
```

DOCUMENT ME!

---

status

```
protected int status
```

DOCUMENT ME!

Constructors

TonePlayer

```
public  TonePlayer()
```

Creates a new instance of TonePlayer

Methods

add

```
public final void add(it.denzosoft.multiplatform.sound.Note[] notes)
```

DOCUMENT ME!

Parameters:

notes - DOCUMENT ME!

---

addListener

`public final void **addListener**(PlayerListener listener)`

DOCUMENT ME!

Parameters:

listener - DOCUMENT ME!

---

close

`public void **close**()`

DOCUMENT ME!

---

durationMillis

`public final int **durationMillis**(int duration)`

DOCUMENT ME!

Parameters:

duration - DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getSequence

`public final java.util.Vector **getSequence**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getStatus

`public final int **getStatus**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getVolume

`public final int **getVolume**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

open

`public void **open**()`

DOCUMENT ME!

---

pause

`public final void **pause**()`

DOCUMENT ME!

---

play

`public final void **play**()`

DOCUMENT ME!

---

playChord

`public void **playChord**(it.denzosoft.multiplatform.sound.Note[] chord)`

DOCUMENT ME!

Parameters:

chord - DOCUMENT ME!

---

playNote

`public void **playNote**(Note note)`

DOCUMENT ME!

Parameters:

note - DOCUMENT ME!

restart

```
public final void restart()
```

DOCUMENT ME!

---

run

```
public final void run()
```

DOCUMENT ME!

---

setLoop

```
public final void setLoop(int loopTimes)
```

DOCUMENT ME!

Parameters:

loopTimes - DOCUMENT ME!

---

setSequence

```
public final void setSequence(java.util.Vector sequence)
```

DOCUMENT ME!

Parameters:

sequence - DOCUMENT ME!

---

setVolume

```
public final void setVolume(int volume)
```

DOCUMENT ME!

Parameters:

volume - DOCUMENT ME!

---

stop

```
public final void stop()
```

DOCUMENT ME!

---

waitForEnd

```
public void waitForEnd()
```

DOCUMENT ME!

Package it.denzosoft.mobile.common.util

Class Summary

ArrayList

FixedSizeList

DOCUMENT ME!

Logger

DOCUMENT ME!

ObjectBuffer

DOCUMENT ME!

StringFunctions

---

it.denzosoft.mobile.common.util

Class ArrayList

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.util.ArrayList
```

< Constructors > < Methods >

---

public class **ArrayList**
extends java.lang.Object

Constructors

ArrayList

`public` **`ArrayList`**`()`

Creates an ArrayList with the initial capacity of 10 and a growth factor of 75%

ArrayList

```
public  ArrayList(int initialCapacity)
```

creates an ArrayList with the given initial capacity and a growth factor of 75%

Parameters:

initialCapacity - the capacity of this array list.

ArrayList

```
public  ArrayList(int initialCapacity,
                  int growthFactor)
```

Creates a new ArrayList

Parameters:

initialCapacity - the capacity of this array list.
growthFactor - the factor in % for increasing the capacity when there's not enough room in this list anymore

Methods

add

```
public void add(int index,
                java.lang.Object element)
             throws java.lang.IllegalArgumentException,
                java.lang.IndexOutOfBoundsException
```

Inserts the given element at the defined position. Any following elements are shifted one position to the back.

Parameters:

index - the position at which the element should be inserted, use 0 when the element should be inserted in the front of this list.
element - the element which should be inserted

Throws:

java.lang.IllegalArgumentException - when the given element is null
java.lang.IndexOutOfBoundsException - when the index < 0 || index >= size()

---

add

```
public void add(java.lang.Object element)
            throws java.lang.IllegalArgumentException
```

Stores the given element in this list.

Parameters:

element - the element which should be appended to this list.

Throws:

java.lang.IllegalArgumentException - when the given element is null

---

clear

```
public void clear()
```

Removes all of the elements from this list. The list will be empty after this call returns.

---

contains

```
public boolean contains(java.lang.Object element)
               throws java.lang.IllegalArgumentException
```

Determines whether the given element is stored in this list.

Parameters:

element - the element which might be stored in this list

Returns:

true when the given element is stored in this list

Throws:

java.lang.IllegalArgumentException - when the given element is null

---

get

```
public java.lang.Object get(int index)
                        throws java.lang.IndexOutOfBoundsException
```

Returns the element at the specified position in this list.

Parameters:

index - the position of the desired element.

Returns:

the element stored at the given position

Throws:

java.lang.IndexOutOfBoundsException - when the index < 0 || index >= size()

indexOf

```
public int indexOf(java.lang.Object element)
           throws java.lang.IllegalArgumentException
```

Retrieves the index of the given object.

Parameters:

element - the object which is part of this list.

Returns:

the index of the object or -1 when the object is not part of this list.

Throws:

java.lang.IllegalArgumentException - when the given element is null

---

remove

```
public java.lang.Object remove(int index)
                        throws java.lang.IndexOutOfBoundsException
```

Removes the element at the specified position in this list.

Parameters:

index - the position of the desired element.

Returns:

the element stored at the given position

Throws:

java.lang.IndexOutOfBoundsException - when the index < 0 || index >= size()

---

remove

```
public boolean remove(java.lang.Object element)
               throws java.lang.IllegalArgumentException
```

Removes the given element.

Parameters:

element - the element which should be removed.

Returns:

true when the element was found in this list.

Throws:

java.lang.IllegalArgumentException - when the given element is null

---

set

```
public java.lang.Object set(int index,
                            java.lang.Object element)
                     throws java.lang.IndexOutOfBoundsException
```

Replaces the element at the specified position in this list with the specified element.

Parameters:

index - the position of the element, the first element has the index 0.
element - the element which should be set

Returns:

the replaced element

Throws:

java.lang.IndexOutOfBoundsException - when the index < 0 || index >= size()

---

size

```
public int size()
```

Retrieves the current size of this array list.

Returns:

the number of stored elements in this list.

---

toArray

```
public java.lang.Object[] toArray()
```

Returns all stored elements as an array.

Returns:

the stored elements as an array.

---

toArray

```
public java.lang.Object[] toArray(java.lang.Object[] target)
```

Returns all stored elements in the given array.

Parameters:

target - the array in which the stored elements should be copied.

Returns:

the stored elements of this list

---

trimToSize

```
public void trimToSize()
```

Trims the capacity of this ArrayList instance to be the list's current size. An application can use this operation to minimize the storage of an ArrayList instance.

---

it.denzosoft.mobile.common.util

Class FixedSizeList

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.util.FixedSizeList
```

< Constructors > < Methods >

---

public class **FixedSizeList**
extends java.lang.Object

DOCUMENT ME!

Author:

De Sanctis

Constructors

FixedSizeList

```
public  FixedSizeList(int initialCapacity)
```

Creates a new instance of FixedSizeList

Methods

add

```
public boolean add(java.lang.Object obj)
```

DOCUMENT ME!

Parameters:

obj - DOCUMENT ME!

Returns:

DOCUMENT ME!

---

clear

```
public void clear()
```

DOCUMENT ME!

---

get

```
public java.lang.Object get(int index)
```

DOCUMENT ME!

Parameters:

index - DOCUMENT ME!

Returns:

DOCUMENT ME!

---

remove

```
public void remove(int index)
```

DOCUMENT ME!

Parameters:

index - DOCUMENT ME!

---

remove

```
public void remove(java.lang.Object obj)
```

DOCUMENT ME!

Parameters:

obj - DOCUMENT ME!

---

size

```
public int size()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

it.denzosoft.mobile.common.util

Class Logger

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.util.Logger
```

< Methods >

---

public class **Logger**
extends java.lang.Object

DOCUMENT ME!

Author:
De Sanctis

Methods

add

```
public static void add(java.lang.String message)
```

DOCUMENT ME!

Parameters:

message - DOCUMENT ME!

---

clean

```
public static void clean()
```

DOCUMENT ME!

---

debug

```
public static void debug(java.lang.String message)
```

DOCUMENT ME!

Parameters:

message - DOCUMENT ME!

---

error

```
public static void error(java.lang.String message)
```

---

error

```
public static void error(java.lang.Throwable t)
```

DOCUMENT ME!

Parameters:

t - DOCUMENT ME!

---

getMessage

```
public static java.lang.String getMessage()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

isDebugging

```
public static boolean isDebugging()
```

Getter for property debugging.

Returns:

Value of property debugging.

---

memory

```
public static void memory()
```

DOCUMENT ME!

---

setDebugging

```
public static void setDebugging(boolean debugging)
```

Setter for property debugging.

Parameters:

debugging - New value of property debugging.

---

showAlert

```
public static void showAlert(Display display,
                             int duration)
```

DOCUMENT ME!

Parameters:

display - DOCUMENT ME!
duration - DOCUMENT ME!

---

showMessage

```
public static void showMessage(Display display,
                               java.lang.String message,
                               int duration)
```

DOCUMENT ME!

Parameters:

display - DOCUMENT ME!
message - DOCUMENT ME!
duration - DOCUMENT ME!

---

it.denzosoft.mobile.common.util

Class ObjectBuffer

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.util.ObjectBuffer
```

< Constructors > < Methods >

---

public class **ObjectBuffer**
extends java.lang.Object

DOCUMENT ME!

Author:

De Sanctis

Constructors

ObjectBuffer

`public` **`ObjectBuffer`**`(int size)`

Creates a new instance of ObjectBuffer

Methods

add

`public void` **`add`**`(java.lang.Object obj)`

DOCUMENT ME!

Parameters:

obj - DOCUMENT ME!

---

clean

`public void` **`clean`**`()`

DOCUMENT ME!

---

toString

`public java.lang.String` **`toString`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

Overrides:

toString in class java.lang.Object

it.denzosoft.mobile.common.util

Class StringFunctions

```
java.lang.Object
    |
    +--it.denzosoft.mobile.common.util.StringFunctions
```

< Methods >

---

public class **StringFunctions**
extends java.lang.Object

Author:

De Sanctis

Version:

Methods

split

```
public static java.lang.String[] split(java.lang.String string,
                                       java.lang.String separator)
```

Package it.denzosoft.mobile.gameengine

Interface Summary

Sprite

Class Summary

GameCanvas

DOCUMENT ME!

GameEngine

DOCUMENT ME!

GameMIDlet

DOCUMENT ME!

GraphicObject

DOCUMENT ME!

HiscoreStorage

MenuCanvas

DOCUMENT ME!

---

it.denzosoft.mobile.gameengine

Class GameCanvas

```
java.lang.Object
    |
    +--Canvas
        |
        +--BasicCanvas
            |
            +--it.denzosoft.mobile.gameengine.GameCanvas
```

Direct Known Subclasses:

LayeredCanvas

< Fields > < Constructors > < Methods >

---

public abstract class **GameCanvas**
extends BasicCanvas

DOCUMENT ME!

Author:

De Sanctis

Fields

pauseCommand

```
public final Command pauseCommand
```

DOCUMENT ME!

---

restartCommand

```
public final Command restartCommand
```

DOCUMENT ME!

Constructors

GameCanvas

```
public  GameCanvas(GameMIDlet midlet)
```

Creates a new instance of GameCanvas

Methods

commandAction

```
public void commandAction(Command c,
                          Displayable displayable)
```

DOCUMENT ME!

Parameters:

c - DOCUMENT ME!
displayable - DOCUMENT ME!

Overrides:

commandAction in class BasicCanvas

---

getGameMIDlet

`public GameMIDlet getGameMIDlet()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

keyPressed

`protected void keyPressed(int keyCode)`

DOCUMENT ME!

Parameters:

keyCode - DOCUMENT ME!

---

keyReleased

`protected void keyReleased(int keyCode)`

DOCUMENT ME!

Parameters:

keyCode - DOCUMENT ME!

---

it.denzosoft.mobile.gameengine

Class GameEngine

```
java.lang.Object
    |
    +--java.util.TimerTask
        |
        +--it.denzosoft.mobile.gameengine.GameEngine
```

All Implemented Interfaces:

java.lang.Runnable

< Fields > < Constructors > < Methods >

---

public abstract class **GameEngine**
extends java.util.TimerTask

DOCUMENT ME!

Author:

De Sanctis

Fields

DOWN_PRESSED

```
public static final int DOWN_PRESSED
```
DOCUMENT ME!

FIRE_PRESSED

```
public static final int FIRE_PRESSED
```
DOCUMENT ME!

LEFT_PRESSED

```
public static final int LEFT_PRESSED
```
DOCUMENT ME!

RIGHT_PRESSED

```
public static final int RIGHT_PRESSED
```
DOCUMENT ME!

UP_PRESSED

```
public static final int UP_PRESSED
```
DOCUMENT ME!

Constructors

GameEngine

```
public  GameEngine(BasicCanvas canvas)
```
Creates a new instance of GameEngine

Methods

addPoint

```
public void addPoint(int points)
```

---

addScore

```
protected void addScore(int points)
```

---

clean

```
protected void clean()
```

DOCUMENT ME!

---

commandAction

```
public abstract void commandAction(Command c,
                                   Displayable displayable)
```

DOCUMENT ME!

Parameters:

c - DOCUMENT ME!
displayable - DOCUMENT ME!

---

gameTick

```
public abstract void gameTick()
```

DOCUMENT ME!

---

getCleanRate

```
public int getCleanRate()
```

Getter for property cleanRate.

Returns:

Value of property cleanRate.

---

getGameName

`public java.lang.String` **`getGameName`**`()`

Getter for property gameName.

Returns:

Value of property gameName.

---

getHiscore

`protected int[]` **`getHiscore`**`()`

---

getHiscoreInitialValues

`protected int[]` **`getHiscoreInitialValues`**`()`

---

getIntervalLoop

`public final long` **`getIntervalLoop`**`()`

Getter for property intervalLoop.

Returns:

Value of property intervalLoop.

---

getKeyStates

`public int` **`getKeyStates`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getLives

`public int` **`getLives`**`()`

Getter for property lives.

Returns:

Value of property lives.

---

getPoints

`public int` **`getPoints`**`()`

Getter for property points.

Returns:

Value of property points.

---

getRandom

`public static int` **`getRandom`**`(int seed)`

DOCUMENT ME!

Parameters:

seed - DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getRunningTime

`public long` **`getRunningTime`**`()`

Getter for property runningTime.

Returns:

Value of property runningTime.

---

getScreenHeight

`public int` **`getScreenHeight`**`()`

Getter for property screenHeight.

Returns:

Value of property screenHeight.

getScreenWidth

`public int` **`getScreenWidth`**`()`

Getter for property screenWidth.

Returns:

Value of property screenWidth.

---

keyPressed

`protected void` **`keyPressed`**`(int keyCode)`

---

keyReleased

`protected void` **`keyReleased`**`(int keyCode)`

DOCUMENT ME!

Parameters:

keyCode - DOCUMENT ME!

---

pauseGame

`public final void` **`pauseGame`**`()`

DOCUMENT ME!

---

restartGame

`public final void` **`restartGame`**`()`

DOCUMENT ME!

---

run

`public final void` **`run`**`()`

DOCUMENT ME!

Overrides:

run in class java.util.TimerTask

setCleanRate

```
public void setCleanRate(int cleanRate)
```

Setter for property cleanRate.

Parameters:

cleanRate - New value of property cleanRate.

---

setGameName

```
public void setGameName(java.lang.String gameName)
```

Setter for property gameName.

Parameters:

gameName - New value of property gameName.

---

setIntervalLoop

```
public final void setIntervalLoop(long intervalLoop)
```

Setter for property intervalLoop.

Parameters:

intervalLoop - New value of property intervalLoop.

---

setLives

```
public void setLives(int lives)
```

Setter for property lives.

Parameters:

lives - New value of property lives.

---

setPoints

```
public void setPoints(int points)
```

Setter for property points.

Parameters:

points - New value of property points.

setScreenHeight

```
public void setScreenHeight(int screenHeight)
```

Setter for property screenHeight.

Parameters:

screenHeight - New value of property screenHeight.

---

setScreenWidth

```
public void setScreenWidth(int screenWidth)
```

Setter for property screenWidth.

Parameters:

screenWidth - New value of property screenWidth.

---

startGame

```
public final void startGame()
```

DOCUMENT ME!

---

stopGame

```
public final void stopGame()
```

DOCUMENT ME!

---

subPoint

```
public void subPoint(int points)
```

---

it.denzosoft.mobile.gameengine

Class GameMIDlet

```
java.lang.Object
    |
    +--MIDlet
        |
        +--BasicMIDlet
            |
            +--it.denzosoft.mobile.gameengine.GameMIDlet
```

All Implemented Interfaces:

java.lang.Runnable

< Constructors > < Methods >

---

public abstract class **GameMIDlet**
extends BasicMIDlet
implements java.lang.Runnable

DOCUMENT ME!

Author:

De Sanctis

Constructors

GameMIDlet

`public` **`GameMIDlet`**`()`

Methods

getGameEngine

`public` `GameEngine` **`getGameEngine`**`()`

Getter for property gameEngine.

Returns:

Value of property gameEngine.

---

getName

`public java.lang.String **getName**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

run

`public final void **run**()`

DOCUMENT ME!

Overrides:

run in class BasicMIDlet

---

setGameEngine

`public void **setGameEngine**(GameEngine gameEngine)`

Setter for property gameEngine.

Parameters:

gameEngine - New value of property gameEngine.

---

showMenu

`public void **showMenu**()`

DOCUMENT ME!

---

startGame

`public abstract void **startGame**()`

DOCUMENT ME!

it.denzosoft.mobile.gameengine

Class GraphicObject

```
java.lang.Object
    |
    +--it.denzosoft.mobile.gameengine.GraphicObject
```

Direct Known Subclasses:
BasicGraphicObject, MapGraphicObject, MultiTiledGraphicObject, ScrollableGraphicObject, TextualGraphicObject, TiledGraphicObject, EnergyBar

---

< Constructors > < Methods >

---

public abstract class **GraphicObject**
extends java.lang.Object

DOCUMENT ME!

Author:
De Sanctis

Constructors

GraphicObject

```
public  GraphicObject()
```

Creates a new instance of GraphicObject

Methods

getHeight

```
public int getHeight()
```

Getter for property height.

Returns:

Value of property height.

---

getWidth

`public int` **`getWidth`**`()`

Getter for property width.

Returns:

Value of property width.

---

getX

`public int` **`getX`**`()`

Getter for property x.

Returns:

Value of property x.

---

getY

`public int` **`getY`**`()`

Getter for property y.

Returns:

Value of property y.

---

isVisible

`public boolean` **`isVisible`**`()`

Getter for property visible.

Returns:

Value of property visible.

---

paint

`public abstract void` **`paint`**`(Graphics graphics)`

DOCUMENT ME!

Parameters:

graphics - DOCUMENT ME!

---

setHeight

`public void setHeight(int height)`

Setter for property height.

Parameters:

height - New value of property height.

---

setVisible

`public void setVisible(boolean visible)`

Setter for property visible.

Parameters:

visible - New value of property visible.

---

setWidth

`public void setWidth(int width)`

Setter for property width.

Parameters:

width - New value of property width.

---

setX

`public void setX(int x)`

Setter for property x.

Parameters:

x - New value of property x.

---

setY

`public void setY(int y)`

Setter for property y.

Parameters:

y - New value of property y.

it.denzosoft.mobile.gameengine

Class HiscoreStorage

```
java.lang.Object
    |
    +--it.denzosoft.mobile.gameengine.HiscoreStorage
```

< Constructors > < Methods >

---

public class **HiscoreStorage**
extends java.lang.Object

Author:

De Sanctis

Constructors

HiscoreStorage

```
public  HiscoreStorage(java.lang.String gameName,
                       int[] defaultValues)
```

Creates a new instance of HiscoreStorage

Methods

addScore

```
public void addScore(int points)
```

---

close

```
public void close()
```

---

getItemNumber

```
public int getItemNumber()
```

Getter for property itemNumber.

Returns:

Value of property itemNumber.

---

getValues

```
public int[] getValues()
```

---

it.denzosoft.mobile.gameengine

Class MenuCanvas

```
java.lang.Object
    |
    +--Canvas
        |
        +--BasicCanvas
            |
            +--it.denzosoft.mobile.gameengine.MenuCanvas
```

< Constructors > < Methods >

---

public class **MenuCanvas**
extends BasicCanvas

DOCUMENT ME!

Author:

De Sanctis

Constructors

MenuCanvas

```
public  MenuCanvas(GameMIDlet midlet)
```

Creates a new instance of MenuCanvas

Methods

keyPressed

`protected void **keyPressed**(int keyCode)`

DOCUMENT ME!

Parameters:

keyCode - DOCUMENT ME!

---

paint

`protected void **paint**(Graphics graphics)`

DOCUMENT ME!

Parameters:

graphics - DOCUMENT ME!

Overrides:

paint in class BasicCanvas

---

setDevLogo

`public void **setDevLogo**(java.lang.String devLogoImg)`

Setter for property devLogo.

Parameters:

devLogoImg - New value of property devLogo.

---

setForecolor

`public void **setForecolor**(int forecolor)`

Setter for property forecolor.

Parameters:

forecolor - New value of property forecolor.

---

setLogo

`public void **setLogo**(java.lang.String logoImg)`

Setter for property logo.

Parameters:

logoImg - New value of property logo.

setName

`public void **setName**(java.lang.String name)`

Setter for property name.

Parameters:

name - New value of property name.

---

it.denzosoft.mobile.gameengine

Interface Sprite

< Methods >

public interface **Sprite**

Author:

De Sanctis

Methods

execute

`public void **execute**(int userInput)`

DOCUMENT ME!

Parameters:

userInput - DOCUMENT ME!

---

getCollisionArea

`public CollisionArea **getCollisionArea**()`

---

getHeight

`public int **getHeight**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getWidth

`public int **getWidth**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getX

`public int **getX**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getY

`public int **getY**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

Package it.denzosoft.mobile.gameengine.collisiondetecti

Interface Summary

CollisionArea

Class Summary

CircularCollisionArea

CollisionManager

RectangularCollisionArea

---

it.denzosoft.mobile.gameengine.collisiondetection

Class CircularCollisionArea

```
java.lang.Object
    |
    +--it.denzosoft.mobile.gameengine.collisiondetection.CircularCollisionArea
```

All Implemented Interfaces:
CollisionArea

< Constructors > < Methods >

---

public class **CircularCollisionArea**
extends java.lang.Object
implements CollisionArea

Author:
De Sanctis

Constructors

CircularCollisionArea

```
public  CircularCollisionArea(int centerX,
                              int centerY,
                              int radius)
```

Methods

getCenterX

`public int **getCenterX**()`

Getter for property centerX.

Returns:

Value of property centerX.

---

getCenterY

`public int **getCenterY**()`

Getter for property centerY.

Returns:

Value of property centerY.

---

getRadius

`public int **getRadius**()`

Getter for property radius.

Returns:

Value of property radius.

---

setCenterX

`public void **setCenterX**(int centerX)`

Setter for property centerX.

Parameters:

centerX - New value of property centerX.

---

setCenterY

```
public void setCenterY(int centerY)
```

Setter for property centerY.

Parameters:

centerY - New value of property centerY.

---

setRadius

```
public void setRadius(int radius)
```

Setter for property radius.

Parameters:

radius - New value of property radius.

---

it.denzosoft.mobile.gameengine.collisiondetection

Interface CollisionArea

---

public interface **CollisionArea**

Author:

De Sanctis

---

it.denzosoft.mobile.gameengine.collisiondetection

Class CollisionManager

```
java.lang.Object
    |
    +--it.denzosoft.mobile.gameengine.collisiondetection.CollisionManager
```

< Methods >

---

public class **CollisionManager**
extends java.lang.Object

Author:

De Sanctis

Methods

getCollisionManager

```
public static CollisionManager getCollisionManager()
```

---

verifyCircularCollision

```
public boolean verifyCircularCollision(CollisionArea c1,
                                       CollisionArea c2)
```

---

verifyCollision

```
public boolean verifyCollision(CollisionArea c1,
                               CollisionArea c2)
```

---

verifyRectangularCollision

```
public boolean verifyRectangularCollision(CollisionArea c1,
                                          CollisionArea c2)
```

---

it.denzosoft.mobile.gameengine.collisiondetection

Class RectangularCollisionArea

```
java.lang.Object
    |
    +--it.denzosoft.mobile.gameengine.collisiondetection.RectangularCollisionArea
```

All Implemented Interfaces:

CollisionArea

< Constructors > < Methods >

---

public class **RectangularCollisionArea**
extends java.lang.Object
implements CollisionArea

Author:

De Sanctis

Constructors

RectangularCollisionArea

```
public  RectangularCollisionArea(int left,
                                 int top,
                                 int width,
                                 int height)
```

Methods

getHeight

```
public int getHeight()
```

Getter for property height.

Returns:

Value of property height.

---

getLeft

```
public int getLeft()
```

Getter for property left.

Returns:

Value of property left.

---

getTop

```
public int getTop()
```

Getter for property top.

Returns:

Value of property top.

---

getWidth

`public int` **`getWidth`**`()`

Getter for property width.

Returns:

Value of property width.

---

setHeight

`public void` **`setHeight`**`(int height)`

Setter for property height.

Parameters:

height - New value of property height.

---

setLeft

`public void` **`setLeft`**`(int left)`

Setter for property left.

Parameters:

left - New value of property left.

---

setTop

`public void` **`setTop`**`(int top)`

Setter for property top.

Parameters:

top - New value of property top.

---

setWidth

`public void` **`setWidth`**`(int width)`

Setter for property width.

Parameters:

width - New value of property width.

---

translate

```
public void translate(int left,
                      int top)
```

Package it.denzosoft.mobile.gameengine.graphicelement

Class Summary

BasicGraphicObject

DOCUMENT ME!

MapGraphicObject

DOCUMENT ME!

MultiTiledGraphicObject

DOCUMENT ME!

ScrollableGraphicObject

DOCUMENT ME!

TextualGraphicObject

DOCUMENT ME!

TiledGraphicObject

DOCUMENT ME!

---

it.denzosoft.mobile.gameengine.graphicelements

Class BasicGraphicObject

```
java.lang.Object
    |
    +--GraphicObject
        |
        +--it.denzosoft.mobile.gameengine.graphicelements.BasicGraphicObject
```

< Constructors > < Methods >

---

public class **BasicGraphicObject**
extends GraphicObject

DOCUMENT ME!

Author:

De Sanctis

Constructors

BasicGraphicObject

`public` **`BasicGraphicObject`**`()`

Creates a new instance of BasicGraphicObject

Methods

getImage

`public Image` **`getImage`**`()`

Getter for property image.

Returns:

Value of property image.

---

paint

`public void` **`paint`**`(Graphics g)`

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!

Overrides:

paint in class GraphicObject

---

setImage

`public void` **`setImage`**`(Image image)`

Setter for property image.

Parameters:

image - New value of property image.

it.denzosoft.mobile.gameengine.graphicelements

Class MapGraphicObject

```
java.lang.Object
    |
    +--GraphicObject
        |
        +--it.denzosoft.mobile.gameengine.graphicelements.MapGraphicObject
```

< Constructors > < Methods >

---

public class **MapGraphicObject**
extends GraphicObject

DOCUMENT ME!

Author:
De Sanctis

Constructors

MapGraphicObject

`public` **`MapGraphicObject`**`()`

Creates a new instance of MapGraphicObject

Methods

getImage

`public` `TiledImage` **`getImage`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getMap

`public byte[][]` **`getMap`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

isLoopX

`public boolean **isLoopX**()`

Getter for property loopX.

Returns:

Value of property loopX.

---

isLoopY

`public boolean **isLoopY**()`

Getter for property loopY.

Returns:

Value of property loopY.

---

paint

`public void **paint**(Graphics g)`

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!

Overrides:

paint in class GraphicObject

---

setImage

`public void **setImage**(TiledImage tiledImage)`

DOCUMENT ME!

Parameters:

tiledImage - DOCUMENT ME!

---

setLoopX

```
public void setLoopX(boolean loopX)
```

Setter for property loopX.

Parameters:

loopX - New value of property loopX.

---

setLoopY

```
public void setLoopY(boolean loopY)
```

Setter for property loopY.

Parameters:

loopY - New value of property loopY.

---

setMap

```
public void setMap(byte[][] map)
```

DOCUMENT ME!

Parameters:

map - DOCUMENT ME!

---

it.denzosoft.mobile.gameengine.graphicelements

Class MultiTiledGraphicObject

```
java.lang.Object
    |
    +--GraphicObject
        |
        +--it.denzosoft.mobile.gameengine.graphicelements.MultiTiledGraphicObject
```

< Constructors > < Methods >

---

public class **MultiTiledGraphicObject**
extends GraphicObject

DOCUMENT ME!

Author:

De Sanctis

Constructors

MultiTiledGraphicObject

`public` **`MultiTiledGraphicObject`**`(int size)`

Creates a new MultiTiledGraphicObject object.

Parameters:

size - DOCUMENT ME!

Methods

getImage

`public` `TiledImage` **`getImage`**`()`

Getter for property image.

Returns:

Value of property image.

---

getTileFrame

`public int` **`getTileFrame`**`(int index)`

DOCUMENT ME!

Parameters:

index - DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getTileX

`public int` **`getTileX`**`(int index)`

DOCUMENT ME!

Parameters:

index - DOCUMENT ME!

Returns:

DOCUMENT ME!

getTileY

```
public int getTileY(int index)
```

DOCUMENT ME!

Parameters:

index - DOCUMENT ME!

Returns:

DOCUMENT ME!

---

paint

```
public void paint(Graphics g)
```

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!

Overrides:

paint in class GraphicObject

---

setImage

```
public void setImage(TiledImage image)
```

Setter for property image.

Parameters:

image - New value of property image.

---

setTileFrame

```
public void setTileFrame(int frame,
                         int index)
```

DOCUMENT ME!

Parameters:

frame - DOCUMENT ME!
index - DOCUMENT ME!

---

setTilePosition

```
public void setTilePosition(int x,
                            int y,
                            int index)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
index - DOCUMENT ME!

---

it.denzosoft.mobile.gameengine.graphicelements

Class ScrollableGraphicObject

```
java.lang.Object
    |
    +--GraphicObject
        |
        +--it.denzosoft.mobile.gameengine.graphicelements.ScrollableGraphicObject
```

< Constructors > < Methods >

---

public class **ScrollableGraphicObject**
extends GraphicObject

DOCUMENT ME!

Author:

De Sanctis

Constructors

ScrollableGraphicObject

```
public  ScrollableGraphicObject(Image image)
```

Creates a new instance of ScrollableGraphicObject

Methods

getLeft

`public int **getLeft**()`

Getter for property left.

Returns:

Value of property left.

---

getTop

`public int **getTop**()`

Getter for property top.

Returns:

Value of property top.

---

paint

`public void **paint**(Graphics g)`

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!

Overrides:

paint in class GraphicObject

---

setLeft

`public void **setLeft**(int left)`

Setter for property left.

Parameters:

left - New value of property left.

---

setTop

`public void **setTop**(int top)`

Setter for property top.

Parameters:

top - New value of property top.

it.denzosoft.mobile.gameengine.graphicelements

Class TextualGraphicObject

```
java.lang.Object
    |
    +--GraphicObject
        |
        +--it.denzosoft.mobile.gameengine.graphicelements.TextualGraphicObject
```

< Constructors > < Methods >

public class **TextualGraphicObject**
extends GraphicObject

DOCUMENT ME!

Author:
De Sanctis

Constructors

TextualGraphicObject

`public` **`TextualGraphicObject`**`()`

Creates a new instance of TextualGraphicObject

Methods

getColor

`public int` **`getColor`**`()`

Getter for property color.

Returns:

Value of property color.

getFace

`public int` **`getFace`**`()`

Getter for property face.

Returns:

Value of property face.

---

getFont

`public Font` **`getFont`**`()`

Getter for property font.

Returns:

Value of property font.

---

getItalic

`public boolean` **`getItalic`**`()`

Getter for property italic.

Returns:

Value of property italic.

---

getSize

`public int` **`getSize`**`()`

Getter for property size.

Returns:

Value of property size.

---

getText

`public java.lang.String` **`getText`**`()`

Getter for property text.

Returns:

Value of property text.

---

isBold

`public boolean **isBold**()`

Getter for property bold.

Returns:

Value of property bold.

---

isCentered

`public boolean **isCentered**()`

Getter for property centered.

Returns:

Value of property centered.

---

paint

`public void **paint**(Graphics graphics)`

DOCUMENT ME!

Parameters:

graphics - DOCUMENT ME!

Overrides:

paint in class GraphicObject

---

setBold

`public void **setBold**(boolean bold)`

Setter for property bold.

Parameters:

bold - New value of property bold.

---

setCentered

`public void **setCentered**(boolean centered)`

Setter for property centered.

Parameters:

centered - New value of property centered.

setColor

`public void` **`setColor`**`(int color)`

Setter for property color.

Parameters:

color - New value of property color.

---

setFace

`public void` **`setFace`**`(int face)`

Setter for property face.

Parameters:

face - New value of property face.

---

setFont

`public void` **`setFont`**`(Font font)`

Setter for property font.

Parameters:

font - New value of property font.

---

setItalic

`public void` **`setItalic`**`(boolean italic)`

Setter for property italic.

Parameters:

italic - New value of property italic.

---

setSize

`public void` **`setSize`**`(int size)`

Setter for property size.

Parameters:

size - New value of property size.

setText

`public void` **`setText`**`(java.lang.String text)`

Setter for property text.

Parameters:

text - New value of property text.

---

it.denzosoft.mobile.gameengine.graphicelements

Class TiledGraphicObject

```
java.lang.Object
    |
    +--GraphicObject
        |
        +--it.denzosoft.mobile.gameengine.graphicelements.TiledGraphicObject
```

< Constructors > < Methods >

public class **TiledGraphicObject**
extends GraphicObject

DOCUMENT ME!

Author:

De Sanctis

Constructors

TiledGraphicObject

`public` **`TiledGraphicObject`**`()`

Creates a new TiledGraphicObject object.

TiledGraphicObject

`public` **`TiledGraphicObject`**`(TiledImage image)`

Creates a new instance of TiledGraphicObject

Methods

getFrame

`public int` **`getFrame`**`()`

Getter for property frame.

Returns:

Value of property frame.

---

getImage

`public` TiledImage **`getImage`**`()`

Getter for property image.

Returns:

Value of property image.

---

getTileHeight

`public int` **`getTileHeight`**`()`

Getter for property tileHeight.

Returns:

Value of property tileHeight.

---

getTileWidth

`public int` **`getTileWidth`**`()`

Getter for property tileWidth.

Returns:

Value of property tileWidth.

---

paint

`public void` **`paint`**`(Graphics g)`

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!

Overrides:

paint in class GraphicObject

setFrame

```
public void setFrame(int frame)
```

Setter for property frame.

Parameters:

frame - New value of property frame.

---

setImage

```
public void setImage(TiledImage image)
```

Setter for property image.

Parameters:

image - New value of property image.

Package it.denzosoft.mobile.gameengine.graphicelement

Class Summary

EnergyBar

DOCUMENT ME!

---

it.denzosoft.mobile.gameengine.graphicelements.common

Class EnergyBar

```
java.lang.Object
    |
    +--GraphicObject
        |
        +--it.denzosoft.mobile.gameengine.graphicelements.common.EnergyBar
```

< Constructors > < Methods >

---

public class **EnergyBar**
extends GraphicObject

DOCUMENT ME!

Author:

De Sanctis

Constructors

EnergyBar

`public` **`EnergyBar`**`()`

Creates a new instance of EnergyBar

Methods

getDanger

`public int` **`getDanger`**`()`

Getter for property danger.

Returns:

Value of property danger.

---

getFull

`public int` **`getFull`**`()`

Getter for property full.

Returns:

Value of property full.

---

getWarning

`public int` **`getWarning`**`()`

Getter for property warning.

Returns:

Value of property warning.

---

paint

`public void` **`paint`**`(Graphics graphics)`

DOCUMENT ME!

Parameters:

graphics - DOCUMENT ME!

Overrides:

paint in class GraphicObject

---

setDanger

`public void` **`setDanger`**`(int danger)`

Setter for property danger.

Parameters:

danger - New value of property danger.

setEnergy

`public void **setEnergy**(int energy)`

Setter for property energy.

Parameters:

energy - New value of property energy.

---

setFull

`public void **setFull**(int full)`

Setter for property full.

Parameters:

full - New value of property full.

---

setWarning

`public void **setWarning**(int warning)`

Setter for property warning.

Parameters:

warning - New value of property warning.

Package it.denzosoft.mobile.gameengine.utils

Class Summary

LayeredCanvas

DOCUMENT ME!

MultipleImage

DOCUMENT ME!

SoundManager

TiledImage

DOCUMENT ME!

---

it.denzosoft.mobile.gameengine.utils

Class LayeredCanvas

```
java.lang.Object
    |
    +--Canvas
        |
        +--BasicCanvas
            |
            +--GameCanvas
                |
                +--it.denzosoft.mobile.gameengine.utils.LayeredCanvas
```

< Fields > < Constructors > < Methods >

---

public class **LayeredCanvas**
extends GameCanvas

DOCUMENT ME!

Author:

De Sanctis

Fields

ZORDER_BOTTOM

```
public static final int ZORDER_BOTTOM
```

DOCUMENT ME!

ZORDER_BOTTOMMOST

```
public static final int ZORDER_BOTTOMMOST
```

DOCUMENT ME!

ZORDER_NORMAL

```
public static final int ZORDER_NORMAL
```

DOCUMENT ME!

ZORDER_TOP

```
public static final int ZORDER_TOP
```

DOCUMENT ME!

ZORDER_TOPMOST

```
public static final int ZORDER_TOPMOST
```

DOCUMENT ME!

Constructors

LayeredCanvas

```
public  LayeredCanvas(GameMIDlet midlet)
```

Creates a new instance of LayerManager

Methods

add

```
public final void add(GraphicObject go,
                      int layer)
```

DOCUMENT ME!

Parameters:

go - DOCUMENT ME!
layer - DOCUMENT ME!

---

getBackgroundColor

```
public final int getBackgroundColor()
```

Getter for property backgroundColor.

Returns:

Value of property backgroundColor.

---

isBuffered

```
public final boolean isBuffered()
```

Getter for property buffered.

Returns:

Value of property buffered.

---

paint

```
public final void paint(Graphics g)
```

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!

Overrides:

paint in class BasicCanvas

---

paintGraphicObject

```
protected void paintGraphicObject(Graphics g,
                                  GraphicObject go)
```

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!
go - DOCUMENT ME!

---

paintLayers

```
protected void paintLayers(Graphics g)
```

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!

---

remove

```
public final void remove(GraphicObject go)
```

DOCUMENT ME!

Parameters:

go - DOCUMENT ME!

---

setBackgroundColor

```
public final void setBackgroundColor(int backgroundColor)
```

Setter for property backgroundColor.

Parameters:

backgroundColor - New value of property backgroundColor.

---

setBuffered

```
public final void setBuffered(boolean buffered)
```

Setter for property buffered.

Parameters:

buffered - New value of property buffered.

---

it.denzosoft.mobile.gameengine.utils

Class MultipleImage

```
java.lang.Object
    |
    +--it.denzosoft.mobile.gameengine.utils.MultipleImage
```

< Constructors > < Methods >

public class **MultipleImage**
extends java.lang.Object

DOCUMENT ME!

Author:
De Sanctis

Constructors

MultipleImage

```
public  MultipleImage(java.lang.String name,
                      int size)
```

Creates a new instance of MultipleImage

Methods

getImage

```
public Image getImage(int index)
```

DOCUMENT ME!

Parameters:
index - DOCUMENT ME!

Returns:
DOCUMENT ME!

---

it.denzosoft.mobile.gameengine.utils

Class SoundManager

```
java.lang.Object
    |
    +--it.denzosoft.mobile.gameengine.utils.SoundManager
```

< Fields > < Constructors > < Methods >

---

public class **SoundManager**
extends java.lang.Object

Author:
De Sanctis

Fields

MIDI_FORMAT

```
public static final int MIDI_FORMAT
```

WAVE_FORMAT

```
public static final int WAVE_FORMAT
```

Constructors

SoundManager

```
public  SoundManager(java.lang.String filename,
                     int format)
```

Creates a new instance of SoundManager

Methods

play

```
public void play(int loop)
```

---

playerUpdate

```
public void playerUpdate(Player player,
                         java.lang.String event,
                         java.lang.Object object)
```

---

stop

```
public void stop()
```

it.denzosoft.mobile.gameengine.utils

Class TiledImage

```
java.lang.Object
    |
    +--it.denzosoft.mobile.gameengine.utils.TiledImage
```

< Constructors > < Methods >

---

public class **TiledImage**
extends java.lang.Object

DOCUMENT ME!

Author:

De Sanctis

Constructors

TiledImage

```
public  TiledImage(java.lang.String image,
                   int tileWidth,
                   int tileHeight)
```

Creates a new instance of TiledImage

Methods

drawImage

```
public void drawImage(Graphics g,
                      int frame,
                      int x,
                      int y)
```

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!
frame - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawImageWithClip

```
public void drawImageWithClip(Graphics g,
                              int frame,
                              int x,
                              int y)
```

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!
frame - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

getFrameImage

```
public Image getFrameImage(int frame)
```

DOCUMENT ME!

Parameters:

frame - DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getFrameNumber

```
public int getFrameNumber()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getHeight

```
public int getHeight()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getTileHeight

```
public int getTileHeight()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getTileWidth

```
public int getTileWidth()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getWidth

```
public int getWidth()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

setTileHeight

```
public void setTileHeight(int tileHeight)
```

DOCUMENT ME!

Parameters:

tileHeight - DOCUMENT ME!

---

setTileWidth

```
public void setTileWidth(int tileWidth)
```

DOCUMENT ME!

Parameters:

tileWidth - DOCUMENT ME!

Package it.denzosoft.multiplatform.graphics

Interface Summary

Graphics

Class Summary

GraphicsFactory

DOCUMENT ME!

---

it.denzosoft.multiplatform.graphics

Interface Graphics

< Fields > < Methods >

---

public interface **Graphics**

Author:

De Sanctis

Fields

BASELINE

```
public static final int BASELINE
```

DOCUMENT ME!

BOTTOM

```
public static final int BOTTOM
```

DOCUMENT ME!

DOTTED

```
public static final int DOTTED
```

DOCUMENT ME!

HCENTER

```
public static final int HCENTER
```
DOCUMENT ME!

LEFT

```
public static final int LEFT
```
DOCUMENT ME!

RIGHT

```
public static final int RIGHT
```
DOCUMENT ME!

SOLID

```
public static final int SOLID
```
DOCUMENT ME!

TOP

```
public static final int TOP
```
DOCUMENT ME!

VCENTER

```
public static final int VCENTER
```
DOCUMENT ME!

Methods

clipRect

```
public void clipRect(int x,
                     int y,
                     int width,
                     int height)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!

---

drawArc

```
public void drawArc(int x,
                    int y,
                    int width,
                    int height,
                    int startAngle,
                    int arcAngle)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!
startAngle - DOCUMENT ME!
arcAngle - DOCUMENT ME!

---

drawChar

```
public void drawChar(char character,
                     int x,
                     int y)
```

DOCUMENT ME!

Parameters:

character - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawChars

```
public void drawChars(char[] data,
                      int offset,
                      int length,
                      int x,
                      int y)
```

DOCUMENT ME!

Parameters:

data - DOCUMENT ME!
offset - DOCUMENT ME!
length - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawImage

```
public void drawImage(Image img,
                      int x,
                      int y)
```

DOCUMENT ME!

Parameters:

img - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawLine

```
public void drawLine(int x1,
                     int y1,
                     int x2,
                     int y2)
```

DOCUMENT ME!

Parameters:

x1 - DOCUMENT ME!
y1 - DOCUMENT ME!
x2 - DOCUMENT ME!
y2 - DOCUMENT ME!

---

drawRect

```
public void drawRect(int x,
                     int y,
                     int width,
                     int height)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!

---

drawRoundRect

```
public void drawRoundRect(int x,
                          int y,
                          int width,
                          int height,
                          int arcWidth,
                          int arcHeight)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!
arcWidth - DOCUMENT ME!
arcHeight - DOCUMENT ME!

---

drawString

```
public void drawString(java.lang.String str,
                       int x,
                       int y)
```

DOCUMENT ME!

Parameters:

str - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

drawSubstring

```
public void drawSubstring(java.lang.String str,
                          int offset,
                          int len,
                          int x,
                          int y)
```

DOCUMENT ME!

Parameters:

str - DOCUMENT ME!
offset - DOCUMENT ME!
len - DOCUMENT ME!
x - DOCUMENT ME!
y - DOCUMENT ME!

---

fillArc

```
public void fillArc(int x,
                    int y,
                    int width,
                    int height,
                    int startAngle,
                    int arcAngle)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!
startAngle - DOCUMENT ME!
arcAngle - DOCUMENT ME!

---

fillRect

```
public void fillRect(int x,
                     int y,
                     int width,
                     int height)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!

---

fillRoundRect

```
public void fillRoundRect(int x,
                          int y,
                          int width,
                          int height,
                          int arcWidth,
                          int arcHeight)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!
arcWidth - DOCUMENT ME!
arcHeight - DOCUMENT ME!

---

getBlueComponent

```
public int getBlueComponent()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getClipHeight

```
public int getClipHeight()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getClipWidth

```
public int getClipWidth()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getClipX

`public int` **`getClipX`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getClipY

`public int` **`getClipY`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getColor

`public int` **`getColor`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getFont

`public Font` **`getFont`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getGrayScale

`public int` **`getGrayScale`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getGreenComponent

`public int` **`getGreenComponent`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getRedComponent

`public int` **`getRedComponent`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getStrokeStyle

`public int` **`getStrokeStyle`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getTranslateX

`public int` **`getTranslateX`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getTranslateY

`public int` **`getTranslateY`**`()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

setClip

```
public void setClip(int x,
                    int y,
                    int width,
                    int height)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!
width - DOCUMENT ME!
height - DOCUMENT ME!

---

setColor

```
public void setColor(int RGB)
```

DOCUMENT ME!

Parameters:

RGB - DOCUMENT ME!

---

setColor

```
public void setColor(int red,
                     int green,
                     int blue)
```

DOCUMENT ME!

Parameters:

red - DOCUMENT ME!
green - DOCUMENT ME!
blue - DOCUMENT ME!

---

setFont

```
public void setFont(Font font)
```

DOCUMENT ME!

Parameters:

font - DOCUMENT ME!

---

setGrayScale

```
public void setGrayScale(int grey)
```

DOCUMENT ME!

Parameters:

grey - DOCUMENT ME!

---

setStrokeStyle

```
public void setStrokeStyle(int style)
```

DOCUMENT ME!

Parameters:

style - DOCUMENT ME!

---

translate

```
public void translate(int x,
                      int y)
```

DOCUMENT ME!

Parameters:

x - DOCUMENT ME!
y - DOCUMENT ME!

---

it.denzosoft.multiplatform.graphics

Class GraphicsFactory

```
java.lang.Object
    |
    +--it.denzosoft.multiplatform.graphics.GraphicsFactory
```

< Methods >

---

public class **GraphicsFactory**
extends java.lang.Object

DOCUMENT ME!

Author:

De Sanctis

Methods

getGraphics

```
public static Graphics getGraphics(javax.microedition.lcdui.Graphics g)
```

DOCUMENT ME!

Parameters:

g - DOCUMENT ME!

Returns:

DOCUMENT ME!

Package it.denzosoft.multiplatform.sound

Interface Summary

Player

PlayerListener

Class Summary

Note

DOCUMENT ME!

---

it.denzosoft.multiplatform.sound

Class Note

```
java.lang.Object
    |
    +--it.denzosoft.multiplatform.sound.Note
```

< Fields > < Constructors > < Methods >

---

public class **Note**
extends java.lang.Object

DOCUMENT ME!

Author:

De Sanctis

Fields

C4_PITCH

```
public static final int C4_PITCH
```

DOCUMENT ME!

REST_PITCH

```
public static final int REST_PITCH
```

DOCUMENT ME!

WHOLE_NOTE_DURATION

```
public static final int WHOLE_NOTE_DURATION
```

DOCUMENT ME!

Constructors

Note

```
public  Note()
```

Creates a new instance of Note

Note

```
public  Note(int pitch,
             int duration)
```

Creates a new Note object.

Parameters:

pitch - DOCUMENT ME!
duration - DOCUMENT ME!

Methods

getDuration

```
public int getDuration()
```

Getter for property duration.

Returns:

Value of property duration.

---

getNote

```
public int getNote()
```

Getter for property note.

Returns:

Value of property note.

---

getOctave

`public int **getOctave**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getPitch

`public int **getPitch**()`

Getter for property pitch.

Returns:

Value of property pitch.

---

setDuration

`public void **setDuration**(int duration)`

Setter for property duration.

Parameters:

duration - New value of property duration.

---

setPitch

`public void **setPitch**(int pitch)`

Setter for property pitch.

Parameters:

pitch - New value of property pitch.

---

it.denzosoft.multiplatform.sound

Interface Player

< Fields > < Methods >

---

public interface **Player**

Author:
De Sanctis

Fields

LOOP_FOREVER

```
public static final int LOOP_FOREVER
```
DOCUMENT ME!

NO_LOOP

```
public static final int NO_LOOP
```
DOCUMENT ME!

STATUS_CLOSED

```
public static final int STATUS_CLOSED
```
DOCUMENT ME!

STATUS_PAUSED

```
public static final int STATUS_PAUSED
```
DOCUMENT ME!

STATUS_PLAYING

```
public static final int STATUS_PLAYING
```
DOCUMENT ME!

STATUS_READY

```
public static final int STATUS_READY
```
DOCUMENT ME!

Methods

add

```
public void add(it.denzosoft.multiplatform.sound.Note[] notes)
```

DOCUMENT ME!

Parameters:

notes - DOCUMENT ME!

---

addListener

```
public void addListener(PlayerListener listener)
```

DOCUMENT ME!

Parameters:

listener - DOCUMENT ME!

---

close

```
public void close()
```

DOCUMENT ME!

---

getSequence

```
public java.util.Vector getSequence()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getStatus

```
public int getStatus()
```

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

getVolume

`public int **getVolume**()`

DOCUMENT ME!

Returns:

DOCUMENT ME!

---

open

`public void **open**()`

DOCUMENT ME!

---

pause

`public void **pause**()`

DOCUMENT ME!

---

play

`public void **play**()`

DOCUMENT ME!

---

playChord

`public void **playChord**(it.denzosoft.multiplatform.sound.Note[] chord)`

DOCUMENT ME!

Parameters:

chord - DOCUMENT ME!

---

playNote

`public void **playNote**(Note note)`

DOCUMENT ME!

Parameters:

note - DOCUMENT ME!

restart

```
public void restart()
```

DOCUMENT ME!

---

setLoop

```
public void setLoop(int loopTimes)
```

DOCUMENT ME!

Parameters:

loopTimes - DOCUMENT ME!

---

setSequence

```
public void setSequence(java.util.Vector sequence)
```

DOCUMENT ME!

Parameters:

sequence - DOCUMENT ME!

---

setVolume

```
public void setVolume(int volume)
```

DOCUMENT ME!

Parameters:

volume - DOCUMENT ME!

---

stop

```
public void stop()
```

DOCUMENT ME!

---

waitForEnd

```
public void waitForEnd()
```

DOCUMENT ME!

---

it.denzosoft.multiplatform.sound

Interface PlayerListener

< Methods >

---

public interface **PlayerListener**

Author:

De Sanctis

Methods

update

```
public void update(it.denzosoft.multiplatform.sound.Note[] notes,
                   int timer)
```

DOCUMENT ME!

Parameters:

notes - DOCUMENT ME!
timer - DOCUMENT ME!

INDEX

G

H

I

J

K

L

M

N

O

P

R

S

T

U

V

W

X

Y

Z