

AWT BASICSTROKE CLASS

Introduction

The BasicStroke class states colors in the default sRGB color space or colors in arbitrary color spaces identified by a ColorSpace.

Class declaration

Following is the declaration for **java.awt.BasicStroke** class:

```
public class BasicStroke
    extends Object
    implements Stroke
```

Field

Following are the fields for **java.awt.geom.Arc2D** class:

- **static int CAP_BUTT** -- Ends unclosed subpaths and dash segments with no added decoration.
- **static int CAP_ROUND** -- Ends unclosed subpaths and dash segments with a round decoration that has a radius equal to half of the width of the pen.
- **static int CAP_SQUARE** -- Ends unclosed subpaths and dash segments with a square projection that extends beyond the end of the segment to a distance equal to half of the line width.
- **static int JOIN_BEVEL** -- Joins path segments by connecting the outer corners of their wide outlines with a straight segment.
- **static int JOIN_MITER** -- Joins path segments by extending their outside edges until they meet.
- **static int JOIN_ROUND** -- Joins path segments by rounding off the corner at a radius of half the line width.

Class constructors

S.N. Constructor & Description

1

BasicStroke

Constructs a new BasicStroke with defaults for all attributes.

2

BasicStroke*floatwidth*

Constructs a solid BasicStroke with the specified line width and with default values for the cap and join styles.

3

BasicStroke*floatwidth, intcap, intjoin*

Constructs a solid BasicStroke with the specified attributes.

4

BasicStroke*floatwidth, intcap, intjoin, floatmiterlimit*

Constructs a solid BasicStroke with the specified attributes.

5

BasicStroke*floatwidth, intcap, intjoin, floatmiterlimit, float[]dash, floatdashPhase*

Constructs a new BasicStroke with the specified attributes.

Class methods

S.N. Method & Description

1

Shape createStrokedShape*Shapes*

Returns a Shape whose interior defines the stroked outline of a specified Shape.

2

boolean equalsObject*obj*

Tests if a specified object is equal to this BasicStroke by first testing if it is a BasicStroke and then comparing its width, join, cap, miter limit, dash, and dash phase attributes with those of this BasicStroke.

3

float[] getDashArray

Returns the array representing the lengths of the dash segments.

4

float getDashPhase

Returns the current dash phase.

5

int getEndCap

Returns the end cap style.

6

int getLineJoin

Returns the line join style.

7

float getLineWidth

Returns the line width.

8

float getMiterLimit

Returns the limit of miter joins.

9

int hashCode

Returns the hashCode for this stroke.

Methods inherited

This class inherits methods from the following classes:

- `java.lang.Object`

BasicStroke Example

Create the following java program using any editor of your choice in say **D:/ > AWT > com > tutorialspoint > gui >**

`AWTGraphicsDemo.java`

```
package com.tutorialspoint.gui;

import java.awt.*;
import java.awt.event.*;
import java.awt.geom.*;

public class AWTGraphicsDemo extends Frame {

    public AWTGraphicsDemo(){
        super("Java AWT Examples");
        prepareGUI();
    }

    public static void main(String[] args){
        AWTGraphicsDemo awtGraphicsDemo = new AWTGraphicsDemo();
        awtGraphicsDemo.setVisible(true);
    }

    private void prepareGUI(){
        setSize(400,400);
        addWindowListener(new WindowAdapter() {
            public void windowClosing(WindowEvent windowEvent){
                System.exit(0);
            }
        });
    }

    @Override
    public void paint(Graphics g) {
        Graphics2D g2 = (Graphics2D)g;
        g2.setStroke(new BasicStroke(3.0f));
        g2.setPaint(Color.blue);

        Rectangle2D shape = new Rectangle2D.Float();
        shape setFrame(100, 150, 200,100);
        g2.draw(shape);

        Rectangle2D shape1 = new Rectangle2D.Float();
        shape1 setFrame(110, 160, 180,80);
        g2.setStroke(new BasicStroke(1.0f));

        g2.draw(shape1);
        Font plainFont = new Font("Serif", Font.PLAIN, 24);
        g2.setFont(plainFont);
        g2.setColor(Color.DARK_GRAY);
        g2.drawString("Tutorialspoint", 130, 200);
    }
}
```

Compile the program using command prompt. Go to **D:/ > AWT** and type the following command.

```
D:\AWT>javac com\tutorialspoint\gui\AwtGraphicsDemo.java
```

If no error comes that means compilation is successful. Run the program using following command.

```
D:\AWT>java com.tutorialspoint.gui.AwtGraphicsDemo
```

Verify the following output

