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:

```java
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

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Constructor &amp; Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><code>BasicStroke</code></td>
</tr>
<tr>
<td></td>
<td>Constructs a new BasicStroke with defaults for all attributes.</td>
</tr>
<tr>
<td>2</td>
<td><code>BasicStroke/floatwidth</code></td>
</tr>
<tr>
<td></td>
<td>Constructs a solid BasicStroke with the specified line width and with default values for the cap and join styles.</td>
</tr>
<tr>
<td>3</td>
<td><code>BasicStroke/floatwidth, intcap, intjoin</code></td>
</tr>
<tr>
<td></td>
<td>Constructs a solid BasicStroke with the specified attributes.</td>
</tr>
</tbody>
</table>
BasicStroke(floatwidth, intcap, intjoin, floatmiterlimit)
Constructs a solid BasicStroke with the specified attributes.

BasicStroke(floatwidth, intcap, intjoin, floatmiterlimit, float[]dash, floatdash_phase)
Constructs a new BasicStroke with the specified attributes.

Class methods

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Method &amp; Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shape createStrokedShape(Shape)</td>
</tr>
<tr>
<td></td>
<td>Returns a Shape whose interior defines the stroked outline of a specified Shape.</td>
</tr>
<tr>
<td>2</td>
<td>boolean equals(Object obj)</td>
</tr>
<tr>
<td></td>
<td>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.</td>
</tr>
<tr>
<td>3</td>
<td>float[] getDashArray</td>
</tr>
<tr>
<td></td>
<td>Returns the array representing the lengths of the dash segments.</td>
</tr>
<tr>
<td>4</td>
<td>float getDashPhase</td>
</tr>
<tr>
<td></td>
<td>Returns the current dash phase.</td>
</tr>
<tr>
<td>5</td>
<td>int getEndCap</td>
</tr>
<tr>
<td></td>
<td>Returns the end cap style.</td>
</tr>
<tr>
<td>6</td>
<td>int getLineJoin</td>
</tr>
<tr>
<td></td>
<td>Returns the line join style.</td>
</tr>
<tr>
<td>7</td>
<td>float getLineWidth</td>
</tr>
<tr>
<td></td>
<td>Returns the line width.</td>
</tr>
<tr>
<td>8</td>
<td>float getMiterLimit</td>
</tr>
<tr>
<td></td>
<td>Returns the limit of miter joins.</td>
</tr>
<tr>
<td>9</td>
<td>int hashCode</td>
</tr>
</tbody>
</table>
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**

```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.
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