Draw Gradient in Java ME

Here is a J2ME class for gradients drawing, supporting both horizontal and vertical gradients.

This could be useful to substitute background gradient images with graphics drawn by code.

```
import javax.microedition.lcdui.Graphics;

public class Gradient
{
 public static final int VERTICAL = 0;
 public static final int HORIZONTAL = 1;

 public static void gradientBox(Graphics g, int color1, int color2, int left, int top, int width, int height, int orientation)
 {
  int max = orientation == VERTICAL ? height : width;

  int color1RGB[] = new int[]{(color1>>16) & 0xff,(color1>>8) & 0xff,color1 & 0xff};
  int color2RGB[] = new int[]{(color2>>16) & 0xff,(color2>>8) & 0xff,color2 & 0xff};

  int colorCalc[] = new int[]{
    (( color2RGB[0] - color1RGB[0] )<<16)/max,
    (( color2RGB[1] - color1RGB[1] )<<16)/max,
    (( color2RGB[2] - color1RGB[2] )<<16)/max
  };

  for(int i = max; i > -1; i--)
  {

   g.setColor(
     (color1RGB[0]+((i*colorCalc[0])>>16)) <<16 |
     (color1RGB[1]+((i*colorCalc[1])>>16)) <<8  |
     (color1RGB[2]+((i*colorCalc[2])>>16))
     );

   if(orientation == VERTICAL)
    g.drawLine(left, top + i, left + width - 1, top + i);
   else
    g.drawLine(left + i, top, left + i, top + height - 1);
  }
 }
}
```

and here is a sample Canvas using the gradientBox method (the final effect is shown in the screenshot at beginning of this article):

```
import javax.microedition.lcdui.Canvas;
import javax.microedition.lcdui.Graphics;

public class GradientRectCanvas extends Canvas {

 protected void paint(Graphics g)
 {
  int halfWidth = getWidth() / 2;
  int halfHeight = getHeight() / 2;

  Gradient.gradientBox(g, 0xffffff, 0xff0000, 0, 0, halfWidth, halfHeight, Gradient.HORIZONTAL);

  Gradient.gradientBox(g, 0xff0000, 0xffffff, halfWidth, 0, halfWidth, halfHeight, Gradient.VERTICAL);

  Gradient.gradientBox(g, 0xffff00, 0x00ffff, 0, halfHeight, halfWidth, halfHeight, Gradient.VERTICAL);

  Gradient.gradientBox(g, 0x00ff00, 0x0000ff, halfWidth, halfHeight, halfWidth, halfHeight, Gradient.VERTICAL);
 }

}
```


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