# Desenho gradiente, em Java ME

Este artigo mostra uma classe em Java ME que faz desenhos em gradiente, tanto na horizontal quanto na vertical.

Esto pode ser muito útil para substituir imagens gradientes de *background(fundo)* com gráficos escritos por código.

```
package com.jappit.wiki.gradientrect.graphics;

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;

  for(int i = 0; i < max; i++)
  {
   int color = midColor(color1, color2, max * (max - 1 - i) / (max - 1), max);

   g.setColor(color);

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

 static int midColor(int color1, int color2, int prop, int max)
 {
  int red =
   (((color1 >> 16) & 0xff) * prop +
   ((color2 >> 16) & 0xff) * (max - prop)) / max;

  int green =
   (((color1 >> 8) & 0xff) * prop +
   ((color2 >> 8) & 0xff) * (max - prop)) / max;

  int blue =
   (((color1 >> 0) & 0xff) * prop +
   ((color2 >> 0) & 0xff) * (max - prop)) / max;

  int color = red << 16 | green << 8 | blue;

  return color;
 }
}
```

E aqui está um simples Canvas usando o método *gradientBox* (o efeito final é mostrado no *screenshot* no início deste artigo):

```
package com.jappit.wiki.gradientrect.display;

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

import com.jappit.wiki.gradientrect.graphics.Gradient;

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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```
}
```


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