
Subject: DrawArc not working in GTK mode
Posted by [mdelfede](#) on Fri, 31 Aug 2018 11:04:20 GMT
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Hi, I've this code:

```
iw.DrawArc(Rect(xc - r, yc - r, xc + r, yc + r), Point(xc + r, 0), Point(xc + r, 0), 0, c);
```

(iw is an ImageDraw)

which should draw the outline of a circle. It works perfectly in X11 mode, it does nothing in GTK mode.

I tried with DrawEllipse and this one DOES work, but fills the circle, which is not what I want. I tried also to draw half ellipse, to see if the problem is because of identical starting and ending points, but it also doesn't draw anything in GTK mode.

It's a bug or am I missing something ?

Ciao

Massimo

Subject: Re: DrawArc not working in GTK mode
Posted by [mdelfede](#) on Fri, 31 Aug 2018 11:17:55 GMT
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Found it... Cairo doesn't draw anything with ang1 == ang2. Modifying DrawArcOp like this works:

```
void SystemDraw::DrawArcOp(const Rect& rc, Point start, Point end, int width, Color color)
{
    if(rc.Width() <= 0 || rc.Height() <= 0)
        return;
    FlushText();
    Sizef radius = Sizef(rc.Size()) / 2.0;
    Pointf center = Pointf(rc.TopLeft()) + radius;
    double ang1 = Bearing((Pointf(start) - center) / radius);
    double ang2 = Bearing((Pointf(end) - center) / radius);
    ---> if(ang1 == ang2)
    --->  ang1 -= 0.000001;

    cairo_move_to(cr, center.x + radius.cx * cos(ang1), center.y + radius.cy * sin(ang1));
    cairo_save(cr);
    cairo_translate(cr, rc.left + radius.cx, rc.top + radius.cy);
```

```
cairo_scale(cr, radius.cx, radius.cy);
cairo_arc_negative(cr, 0, 0, 1, ang1, ang2);
cairo_restore(cr);
```

```
SetColor(color);
sDrawLineStroke(cr, width);
}
```

BTW line thickness is much smaller in Cairo than in X11.

Subject: Re: DrawArc not working in GTK mode
Posted by [mdelfede](#) on Fri, 31 Aug 2018 11:54:17 GMT
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As a quick workaround without changing UPP code :

```
static void _DrawCircle(ImageDraw &iw, int xc, int yc, int r, Color c)
{
#ifdef flagGTK
    iw.Alpha().DrawArc(Rect(xc - r, yc - r, xc + r, yc + r), Point(xc + r, 0), Point(xc - r, 0), 2,
        GrayColor(255));
    iw.      DrawArc(Rect(xc - r, yc - r, xc + r, yc + r), Point(xc + r, 0), Point(xc - r, 0), 2, c);
    iw.Alpha().DrawArc(Rect(xc - r, yc - r, xc + r, yc + r), Point(xc - r, 0), Point(xc + r, 0), 2,
        GrayColor(255));
    iw.      DrawArc(Rect(xc - r, yc - r, xc + r, yc + r), Point(xc - r, 0), Point(xc + r, 0), 2, c);
#else
    iw.Alpha().DrawArc(Rect(xc - r, yc - r, xc + r, yc + r), Point(xc + r, 0), Point(xc + r, 0), 0,
        GrayColor(255));
    iw.      DrawArc(Rect(xc - r, yc - r, xc + r, yc + r), Point(xc + r, 0), Point(xc + r, 0), 0, c);
#endif
}
```

Notice the thickness of 2 in GTK mode, using the default (0 or 1) draws an almost invisible arc.

Subject: Re: DrawArc not working in GTK mode
Posted by [mirek](#) on Tue, 04 Sep 2018 11:43:49 GMT
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Thanks, frankly, this is weird way to draw ellipse, but fix should not hurt anything.

To draw ellipse without filling it, specify Null for the first color....

