
Subject: DrawLine bug

Posted by [pvictor](#) on Mon, 14 Dec 2015 04:32:29 GMT

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I was drawing a rotating line with width > 1. I discovered that the line doesn't move smoothly - when it goes strictly horizontal or vertical, it is drawn with an offset about half of its width. I found the source - GtkDrawOp.cpp. Here's the corrected function SystemDraw::DrawLineOp() (old lines are in comments). After correction the line rotates smoothly without any jumps.

```
void SystemDraw::DrawLineOp(int x1, int y1, int x2, int y2, int width, Color color)
{
    if(IsNull(width) || IsNull(color))
        return;
    if(width == 0)
        width = 1;
    FlushText();
    SetColor(color);
    if(width == PEN_SOLID)
        width = 1;
    if(y1 == y2 && width >= 0)
        DrawRect(x1, y1-width/2, x2 - x1, width, color); // DrawRect(x1, y1, x2 - x1, width, color);
    else
    if(x1 == x2 && width >= 0)
        DrawRect(x1-width/2, y1, width, y2 - y1, color); // DrawRect(x1, y1, width, y2 - y1, color);
    else {
        int w = width < 0 ? 1 : width;
        double d = w / 2.0;
        if(y1 == y2) {
            cairo_move_to(cr, min(x1, x2) + 0.5, y1 + d); // cairo_move_to(cr, min(x1, x1) + 0.5, y1 + d);
            cairo_line_to(cr, max(x1, x2) - 0.5, y1 + d);
        }
        else
        if(x1 == x2) {
            cairo_move_to(cr, x1 + d, min(y1, y2) + 0.5);
            cairo_line_to(cr, x1 + d, max(y1, y2) - 0.5);
        }
        else {
            cairo_move_to(cr, x1, y1);
            cairo_line_to(cr, x2, y2);
        }
        sDrawLineStroke(cr, width);
    }
}
```

Subject: Re: DrawLine bug

Posted by [mirek](#) on Mon, 14 Dec 2015 13:36:43 GMT

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Thanks, patch applied.
