Subject: Painter small text quality
Posted by koldo on Tue, 23 Apr 2013 10:37:43 GMT

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Hello all

I would like to improve text quality using Painter for small texts.

In the image it is the same screen with Draw and Painter. The small texts in the X axis (Jan, Feb, Mar, ...) look better with Draw.

This is the code for both:

```
void DrawText(Draw &w, double x, double y, int angle, const String &text, Font font, Color color) {
 w.DrawText(fround(x), fround(y), angle, text, font, color);
}

void DrawText(Painter &w, double x, double y, int angle, const String &text, Font font, Color color)
{
 w.Begin();
 w.Translate(x, y).Rotate(-angle*M_PI/1800.);
 w.Text(0, 0, text, font).Fill(color);
 w.End();
}
```
Do you know how to improve the quality?

File Attachments
1) Painter.png, downloaded 737 times

Subject: Re: Painter small text quality
Posted by dolik.rce on Tue, 23 Apr 2013 17:01:28 GMT

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Hi Koldo,

Small fonts always look ugly when they're anti-aliased. I'd suggest to round the values for the painter variant as well, it can make a huge difference:

```
This preview was generated using this code:void TextTest(Painter& sw) {
 sw.DrawText(10,100, "Hello world! // DrawText()", Roman(12), Black());
 for(int i=0; i<=5; ++i)
  sw.Text(10+0.2*i, 120+i*20, Format("Hello world! // Text() shifted %2vf pixel left",i*0.2),
Roman(12))
   .Fill(Black());
 for(int i=0; i<=5; ++i)
```

```
  sw.Text(300, 120+i*20.2, Format("Hello world! // Text() shifted %2vf pixel down",i*0.2),
Roman(12))
    .Fill(Black());
}
```

Also, you're pictures seem like there are errors in the letter spacing. Not sure where that comes from, I couldn't reproduce it on my system... I think you can safely use DrawText() everywhere, or do some compromise, e.g.void DrawText(Painter &w, double x, double y, int angle, const String &text, Font font, Color color) {
 if(font.GetHeight()>15) {
  w.Begin();
  w.Translate(x, y).Rotate(-angle*M_PI/1800.);
  w.Text(0, 0, text, font).Fill(color);
  w.End();
 } else
  w.DrawText(fround(x), fround(y), angle, text, font, color);
}

Best regards,
Honza

EDIT: Corrected image and code

File Attachments
1) text.png, downloaded 692 times

Subject: Re: Painter small text quality
Posted by koldo on Wed, 24 Apr 2013 07:01:21 GMT
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Hello Honza

I like your proposal. Using it I get this:

The letter spacing is solved although the look remains worse than the original Draw.

Initially I shifted the texts some tenths of pixel but now the results IMHO are not significantly improved.

I think that if it is not possible to improve this in the next future I will paint the texts using Draw over the graphs drawn with Painter.

File Attachments
1) Paint.png, downloaded 651 times

Subject: Re: Painter small text quality
Posted by koldo on Tue, 21 May 2013 10:19:47 GMT
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Hello all

Problem solved. Now all ScatterCtrl texts are drawn using Draw even using Painter to plot. For ScatterDraw all is drawn using Painter.

File Attachments
1) plot.png, downloaded 626 times

Subject: Re: Painter small text quality
Posted by BioBytes on Wed, 22 May 2013 19:33:53 GMT
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Hello Koldo,

Great job

Regards
Biobytes