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Subject: Bad text quality problem in Qtf

Posted by [koldo](#) on Thu, 21 Jan 2010 16:36:24 GMT

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Hello all

I have found some strange behaviour. This is the code labelled "Case B" in picture. The text "(Hello)" looks well.

```
#include <CtrlLib/CtrlLib.h>
```

```
using namespace Upp;
```

```
void MyFunc() {  
    ImageDraw idw(1200, 600);  
    idw.DrawRect(0, 0, 1200, 600, White);  
    idw.DrawText(0, 0, "(Hello)", Serif(400));
```

```
    DrawingDraw dw(350, 250);  
    dw.DrawImage(0, 0, 350, 250, idw);
```

```
    QtfRichObject pict(CreateDrawingObject(dw.GetResult(), Size(350, 250), Size(350, 250)));  
    String qtf;  
    qtf << "[A6 This is some drawing in QTF: " << pict << "&";  
    qtf << "[C3* @B And now in the table: {{1:1 " << pict << ":: Another cell " << pict << "}}";
```

```
    PromptOK(qtf);  
}
```

```
GUI_APP_MAIN {  
    MyFunc();  
}
```

If It is called MyFunc() in a bigger program it is got "Case A", where text is bad rendered

Is there any parameter in RichEdit to do a good os bad quality rendering ?

Best regards  
Koldo

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### File Attachments

1) [dib.PNG](#), downloaded 894 times

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Subject: Re: Bad text quality problem in Qtf

Posted by [koldo](#) on Thu, 21 Jan 2010 16:43:43 GMT

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koldo wrote on Thu, 21 January 2010 17:36Hello all

I have found some strange behaviour. This is the code labelled "Case B" in picture. The text "(Hello)" looks well.

```
#include <CtrlLib/CtrlLib.h>
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using namespace Upp;
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```
    PromptOK(qtf);  
}
```

```
GUI_APP_MAIN {  
    MyFunc();  
}
```

If It is called MyFunc() in a bigger program it is got "Case A", where text is bad rendered

Is there any parameter in RichEdit to do a good os bad quality rendering ?

Best regards  
Koldo

Oh !

If MyFunc() is called in a package without Painter, it works well.

If we add Painter to the package (and we do not call any Painter function), the bad render is got

Best regards  
Koldo

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Subject: Re: Bad text quality problem in Qtf  
Posted by [koldo](#) on Fri, 22 Jan 2010 08:32:46 GMT  
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Hello all

I have included the simplest sample of the problem.

If you run it it gets the text bad rendered.

If you just remove Painter package, it renders the text right.

Best regards  
Koldo

```
#include <CtrlLib/CtrlLib.h>
```

```
using namespace Upp;
```

```
GUI_APP_MAIN
```

```
{  
    ImageDraw idw(1200, 600);  
    idw.DrawRect(0, 0, 1200, 600, White);  
    idw.DrawText(0, 0, "(Hello)", Serif(400));  
  
    DrawingDraw dw(350, 250);  
    dw.DrawImage(0, 0, 350, 250, idw);  
    QtfRichObject pict(CreateDrawingObject(dw.GetResult(), Size(350, 250), Size(350, 250)));  
  
    PromptOK(String("[A5 Rendering problem: ") + pict.ToString());  
}
```

## File Attachments

1) [QtFProblem.7z](#), downloaded 366 times

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Subject: Re: Bad text quality problem in Qtf  
Posted by [Mindtraveller](#) on Sat, 23 Jan 2010 08:27:53 GMT  
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May be, you added Painter, and QTF drawing is internally and implicitly switched to Painter (not GDI). But you didn't set up appropriate rendering method for Painter. It looks like antialiasing is off now. Try to switch Painter' antialiasing on and watch the results.

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Subject: Re: Bad text quality problem in Qtf  
Posted by [koldo](#) on Sat, 23 Jan 2010 15:15:43 GMT

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Mindtraveller wrote on Sat, 23 January 2010 09:27: May be, you added Painter, and QTF drawing is internally and implicitly switched to Painter (not GDI). But you didn't set up appropriate rendering method for Painter. It looks like antialiasing is off now. Try to switch Painter's antialiasing on and watch the results.

Hello Mindtraveller

The sample does not use Painter classes. The problem comes just only when including Painter package.

It is clear that in any way Qtf functions call Painter if it is available. But I did not know how to "generically" set anti-aliasing on in Painter, not just in BufferPainter objects as usual.

Best regards

Koldo

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Subject: Re: Bad text quality problem in Qtf  
Posted by [koldo](#) on Sat, 23 Jan 2010 18:45:54 GMT

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Hello all

It happens the same in Linux and Windows.

I have tried to find the source of the problem but I cannot find how Painter affects Qtf painting if Painter is not used explicitly.

Best regards

Koldo

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Subject: Re: Bad text quality problem in Qtf  
Posted by [dolik.rce](#) on Sat, 23 Jan 2010 19:25:38 GMT

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koldo wrote on Sat, 23 January 2010 19:45: I have tried to find the source of the problem but I cannot find how Painter affects Qtf painting if Painter is not used explicitly.

Hi Koldo!

If I remember correctly, the trick is that both Draw and Painter define their DrawTextOp, DrawRectOp etc... Look for that if you want to see the connection to Painter.

But I don't now how to set the quality without BufferPainter, so I'm not really helping... sorry.

Best regards,

Honza

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Subject: Re: Bad text quality problem in Qtf  
Posted by [andrei\\_natanael](#) on Sat, 23 Jan 2010 19:45:42 GMT  
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Hi Koldo,

I know what your problem is related to. When you add Painter package and compile with it, it put at program initialization two pointers in Draw package for it to use Painter initialization functions for ImageAnyDraw. Your problem is related to line 233 in Painter/DrawOp.cpp

```
INITBLOCK {  
    ImageAnyDrawPainter(sCP, sEP);  
}
```

Sorry for delayed response.

Andrei

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Subject: Re: Bad text quality problem in Qtf  
Posted by [koldo](#) on Sat, 23 Jan 2010 20:45:37 GMT  
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andrei\_natanael wrote on Sat, 23 January 2010 20:45Hi Koldo,

I know what your problem is related to. When you add Painter package and compile with it, it put at program initialization two pointers in Draw package for it to use Painter initialization functions for ImageAnyDraw. Your problem is related to line 233 in Painter/DrawOp.cpp

```
INITBLOCK {  
    ImageAnyDrawPainter(sCP, sEP);  
}
```

Sorry for delayed response.

Andrei

Yes, it is there (thank you Honza too )

The problem is in sCP:

```
void ImageAnyDrawPainter(Draw *(*f)(Size sz), Image (*e)(Draw *w))  
{  
    //sCreateImageDraw = f;  
    sExtractImageDraw = e;  
}
```

With this comment, there is no problem.

sCP is:

```
static Draw *sCP(Size sz)
```

```
{  
    return new ImagePainter(sz);  
}
```

and ImagePainter is:

```
class ImagePainter : private ImageBuffer___, public BufferPainter {  
public:  
    ImagePainter(Size sz, int mode = MODE_ANTI_ALIAS);  
    ...
```

```
ImagePainter::ImagePainter(Size sz, int mode)  
: ImageBuffer___(sz), BufferPainter(ImageBuffer___::ib, mode)  
{}
```

So ImagePainter is MODE\_ANTI\_ALIAS...

but it does not work like this.

Best regards  
Koldo

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Subject: Re: Bad text quality problem in Qtf  
Posted by [mirek](#) on Sun, 24 Jan 2010 18:24:41 GMT  
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Well, this is very interesting issue. It is caused by the fact that the image filtering algorithm of Painter is different. This especially affects rescaling down more than 2 times.

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Subject: Re: Bad text quality problem in Qtf  
Posted by [koldo](#) on Mon, 25 Jan 2010 08:59:14 GMT  
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Hello Mirek

It seems not a problem of RichEdit itself.

Just before PromptOK there are now two lines to save the image and it looks perfect.

```
GUI_APP_MAIN  
{  
    ImageDraw idw(1200, 600);  
    idw.DrawRect(0, 0, 1200, 600, White);  
    idw.DrawText(0, 0, "(Hello)", Serif(400));
```

```
DrawingDraw dw(350, 250);  
dw.DrawImage(0, 0, 350, 250, idw);
```

```
QtRichObject pict(CreateDrawingObject(dw.GetResult(), Size(350, 250), Size(350, 250)));
```

```
/**/ PNGEncoder png;  
/**/ png.SaveFile("c:\\kk.png", pict.obj.ToImage(Size(350, 250)));
```

```
PromptOK(String("[A5 Rendering problem: ") + pict.ToString());  
}
```

Best regards  
Koldo

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Subject: Re: Bad text quality problem in Qtf  
Posted by [mirek](#) on Mon, 25 Jan 2010 09:18:18 GMT  
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koldo wrote on Mon, 25 January 2010 03:59Hello Mirek

It seems not a problem of RichEdit itself.

It is not. I know exactly where the problem is.

I will try to improve rescaling algorithm - that should solve the issue...

---

Subject: Re: Bad text quality problem in Qtf  
Posted by [mirek](#) on Mon, 25 Jan 2010 11:08:04 GMT  
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Improvement committed. It might be a little bit more optimized, but seems to work quite well.

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Subject: Re: Bad text quality problem in Qtf  
Posted by [koldo](#) on Mon, 25 Jan 2010 12:41:10 GMT  
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Great !

In a first test they work both testing code and original code.

Best regards  
Koldo

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