Subject: Can I turn the page a few degrees when printing?
Posted by sergeynikitin on Wed, 30 Mar 2011 07:06:57 GMT
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Dear friends! Can I turn the page a few degrees when printing?

I see that the pages before printing is stored as a Drawing. Drawing may be possible to turn a few degrees as a bitmap?

Subject: Re: Can I turn the page a few degrees when printing?
Posted by Sender Ghost on Mon, 11 Apr 2011 07:37:43 GMT
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Hello, Sergey.

It possible to draw images, which can be rotated for needed angle, using various Rotate functions or Painting::Rotate. Also, some kind of anti-aliasing needed.

I created following simple application, using ImageDraw, but not tested for printing:

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

using namespace Upp;

class App : public TopWindow {
public:
 typedef App CLASSNAME;
 App();
 // Ctrl widgets
 MenuBar menu;
 WithDropChoice<EditIntSpin> angle;
 ImageCtrl image;
 // Bars
 void MainBar(Bar& bar);
 void FileBar(Bar& bar);
 // Events
 void OnSaveAs();
 void OnPrint();
 void OnPreview();
 // Functions
 void DoDraw(ImageDraw& iw);
 Image GetImage();
};

App::App()
{
```

```
 Title("Application for page rotation");
 CenterScreen().Sizeable().MinimizeBox().MaximizeBox();
 const Size sz(640, 480);
 SetRect(sz);
 SetMinSize(sz);

 angle.NotNull().Min(0).Max(360).SetData(0);
 for (int i = 0; i < 9; ++i) angle.AddList(i * 45);

 angle.WhenEnter = angle.WhenSelect = THISBACK(OnPreview);

 AddFrame(menu);
 AddFrame(TopSeparatorFrame());
 menu.Set(THISBACK(MainBar));
 menu.Add(angle, 75);

 Add(image.SizePos());

 OnPreview();
}
// Bars
void App::MainBar(Bar& bar)
{
 bar.Add("File", THISBACK(FileBar));
}

void App::FileBar(Bar& bar)
{
 bar.Add("Save as..", THISBACK(OnSaveAs)).Key(K_CTRL_S);
 bar.Add("Print", THISBACK(OnPrint)).Key(K_ALT_P);
 bar.Add("Preview", THISBACK(OnPreview)).Key(K_ALT_R);
 bar.Separator();
 bar.Add("Exit", THISBACK(Close)).Key(K_ALT_Q);
}
// Events
void App::OnSaveAs()
{
 const String fileName = SelectFileSaveAs("*.png");

 if (!fileName.IsVoid())
 {
  PNGEncoder png;
  Image w = GetImage();
  png.SaveFile(fileName, w);
 }
}

void App::OnPrint()
```

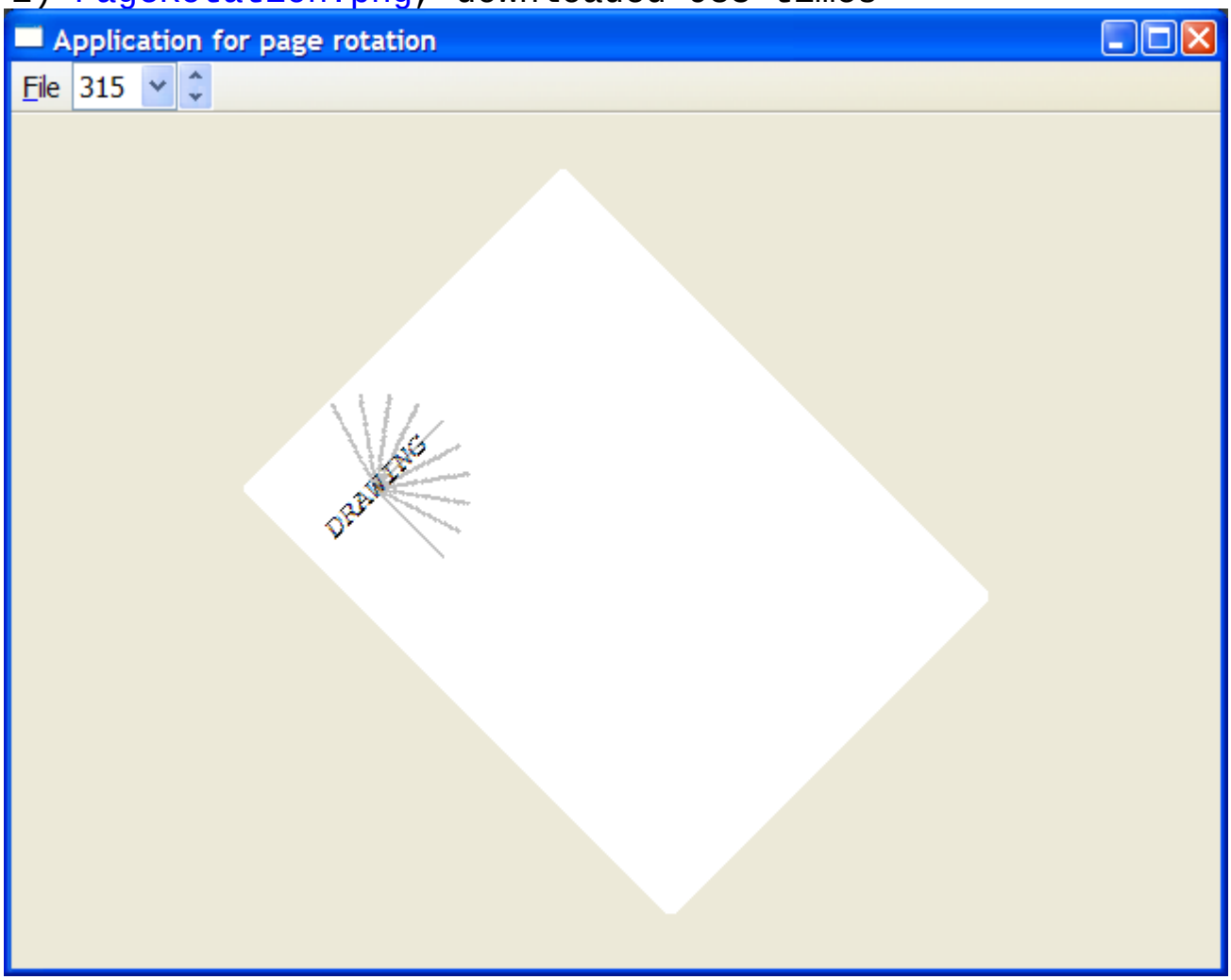
```
{
 PrinterJob pj;

 if (pj.Execute())
 {
  Draw& w = pj.GetDraw();
  w.StartPage();
  w.DrawImage(0, 0, GetImage());
  w.EndPage();
 }
}

void App::OnPreview()
{
 if (!angle.Accept())
  return;

 image.SetImage(GetImage());
}
// Functions
void App::DoDraw(ImageDraw& w)
{
 w.DrawRect(w.GetPageSize(), SWhite);

 for (int i = 0; i < 10; ++i)
  w.DrawLine(50, 50,
   int(50 + 50 * sin(i * M_PI / 10)),
   int(50 + 50 * cos(i * M_PI / 10)),
   2, SLtGray);

 const String text("DRAWING");
 Size sz = GetTextSize(text, Courier(16).Italic());
 w.DrawText((100 - sz.cx) / 2, (100 - sz.cy) / 2, text, Courier(16).Italic());
}

Image App::GetImage()
{
 ImageDraw iw(240, 320);
 DoDraw(iw);
 Image w = iw;

 return Rotate(w, angle * 10);
}

GUI_APP_MAIN
{
 App app;
 app.Run();
```

```
}
```

And using Painting::Rotate:

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

using namespace Upp;

GUI_APP_MAIN
{
 const int width = 600, height = 800;

 PaintingPainter sw(width, height);
 sw.DrawRect(sw.GetPageSize(), SWhite);

 sw.Rotate(0.5); // value from working PainterExamples application, about 45 degrees.

 for (int i = 0; i < 10; ++i)
  sw.DrawLine(50, 50,
   int(50 + 50 * sin(i * M_PI / 10)),
   int(50 + 50 * cos(i * M_PI / 10)),
   2, SLtGray);

 const String text("DRAWING");
 Size sz = GetTextSize(text, Courier(16).Italic());
 sw.DrawText((100 - sz.cx) / 2, (100 - sz.cy) / 2, text, Courier(16).Italic());

 const String fileName = SelectFileSaveAs("*.png");

 if (!fileName.IsVoid())
 {
  ImageBuffer ib(width, height);
  BufferPainter bw(ib);
  bw.DrawPainting(0, 0, width, height, sw);

  PNGEncoder png;
  Image w = ib;
  png.SaveFile(fileName, w);
 }

 PrinterJob pj;

 if (PromptYesNo("Do you want to print?") == IDOK)
  if (pj.Execute())
   pj.GetDraw().DrawPainting(0, 0, width, height, sw);
```

```
}
```

File Attachments

1) PageRotation.png, downloaded 983 times