Subject: PdfDraw, custom DPI request + my fix
Posted by Mountacir on Mon, 22 Aug 2022 08:43:46 GMT
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Hi,

I had a use case where i had to convert some .Pngs to .Pdfs so they can be printed.
The problem was that PdfDraw's fixed 600 DPI casues wrong size pdfs, for example, 6x9"/300dpi image will output as 3x4.5" pdf.
To fix this i modifid PdfDraw.h & PdfDraw.cpp to be able to pass the DPI with PdfDraw's constrctor.

Is it possible to add this feature to the U++? my fix or some other way to set the DPI would be great.

Thank you!

File Attachments
1) PdfDraw.zip, downloaded 306 times

Subject: Re: PdfDraw, custom DPI request + my fix
Posted by Klugier on Mon, 22 Aug 2022 10:57:15 GMT
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Hello Mountacir,

Please create PR with the changes you want to apply to main branch. It allows code review and changes are easily visible. You can find our repository here.

Klugier

Subject: Re: PdfDraw, custom DPI request + my fix
Posted by Mountacir on Tue, 23 Aug 2022 07:03:20 GMT
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Klugier wrote on Mon, 22 August 2022 12:57Hello Mountacir,

Please create PR with the changes you want to apply to main branch. It allows code review and changes are easily visible. You can find our repository here.

Klugier

Thank you! I just did.

Subject: Re: PdfDraw, custom DPI request + my fix
Posted by Mountacir on Wed, 14 Sep 2022 19:12:12 GMT
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This is an example of the issue.
I attached a test example and two images of 6x9 inches at 300dpi and 600dpi that supposed to be book pages.

Trying to convert them to Pdfs using PdfDraw will output different size pdf for 300dpi page while outputing the correct size for 600dpi page.
Both of these pages should maintain thier size in inches.

What's causing this issue is the baked-in 600dpi in:

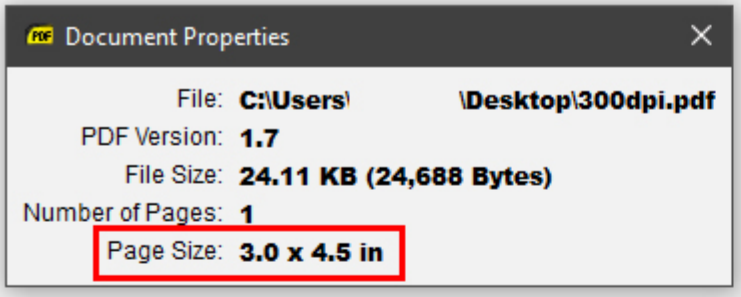
```
double Pt(double dot)		{ return 0.12 * dot; }
```

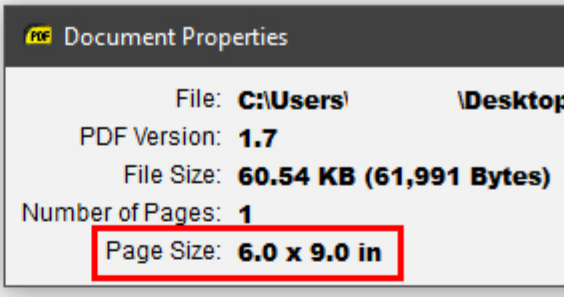
This fixed the problem for me, as the dpi is no longer fixed:

```
double Pt(double dot)		{ return 72 * dot / dpi ; }
```

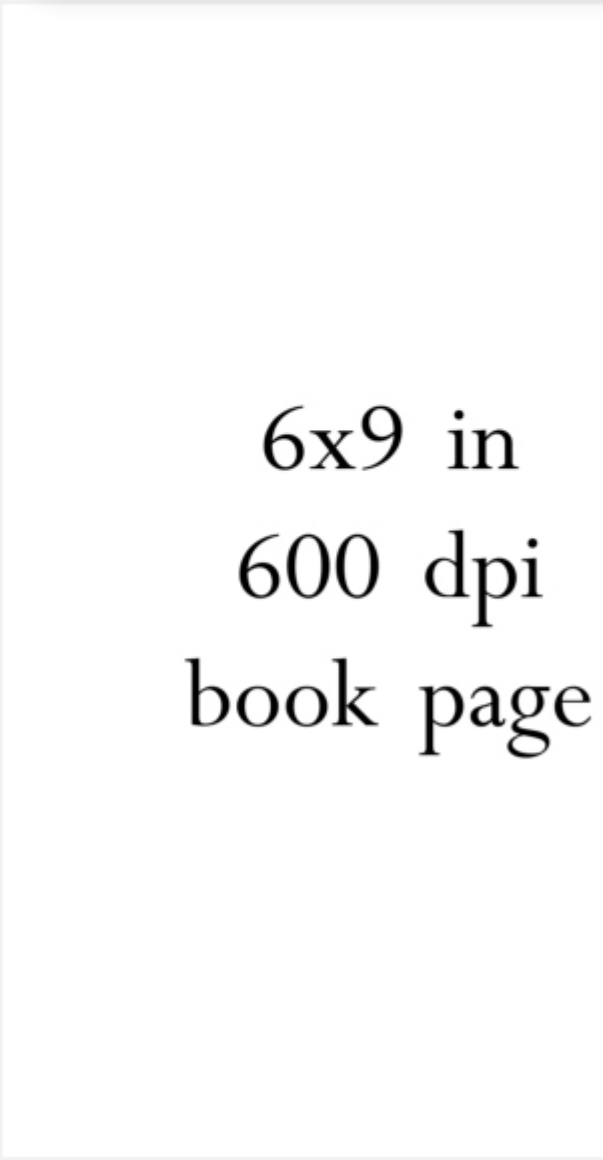
File Attachments

1) DrawImageTest.zip, downloaded 315 times
2) pdfdraw.jpg, downloaded 1080 times









Subject: Re: PdfDraw, custom DPI request + my fix
Posted by mirek on Thu, 15 Sep 2022 08:59:29 GMT
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OK, that is misunderstanding and the problem is elsewhere.

Image::GetSize returns "pixel size" without taking account of DPI (or any other physical dimension).

Now there is Image::GetDots, which returns the size of image in "dots", where dot which is basically 600DPI pixel. Everything in U++ Draw related code that deals with physical dimensions is in dots, including all dimensions in PdfDraw.

Long story short, if you use GetDots instead of GetSize here, it will work as you needed.

Just for reference, to be sure I have tested with this code:

```
GUI_APP_MAIN
{
 for(const char *fn : { "C:/upp/MyApps/6x9_300dpi.png", "C:/upp/MyApps/6x9_600dpi.png" }) {
  Image img = StreamRaster::LoadFileAny(fn);
  Size isz = img.GetDots();
  DDUMP(isz);

  PdfDraw draw(isz.cx, isz.cy);

  draw.DrawImage(0, 0, isz.cx, isz.cy, img);

  SaveFile("D:/xxx/" + GetFileTitle(fn) + ".pdf", draw.Finish());
 }
}
```

Subject: Re: PdfDraw, custom DPI request + my fix
Posted by Mountacir on Thu, 15 Sep 2022 16:55:58 GMT
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All this time and the problem was me using GetSize() instead of GetDots().
At some point i even doubled the image sizes to get to correct output pdf. well, this is embarrassing.

Very sorry for my wrong PR and thank you so much for your help.
