Subject: StreamRasterEncoder puzzle
Posted by nixnixnix on Tue, 15 Apr 2008 13:07:03 GMT
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So here's a puzzle for you:

The following piece of code writes all four image types but the resulting PNG and TIF files cannot be read by photoshop elements. They can be read by other less fussy types of image viewer. And here's the bit that's puzzling, when I use the same plugins elsewhere to write TIF and PNG, photoshop reads the resulting files just fine and even with this code, photoshop can read the resulting BMP and JPG files just fine. Can you find the error?

```
bool RasterLayer::SaveLegendAsImage(String path)
{
 StreamRasterEncoder* pEnc=NULL;

 if(path.Find(".jpg") || path.Find(".JPG"))
 {
  pEnc = new JPGEncoder(100); // top quality
 }
 else if(path.Find(".png") || path.Find(".PNG"))
 {
  pEnc = new PNGEncoder(); // default 32bpp
 }
 else if(path.Find(".tif") || path.Find(".TIF"))
 {
  pEnc = new TIFEncoder();  // default 24bpp
 }
 else if(path.Find(".bmp") || path.Find(".BMP"))
 {
  pEnc = new BMPEncoder(); // default 24bpp
 }
 else
 {
  return false;
 }

 ImageDraw id(2000,2000);
 DrawLegend(id);

 Image img = id.GetStraight();

 pEnc->SaveFile(path,img);

 delete pEnc;
```

```
 return true;
}
```

Cheers,

Nick

EDIT: the following code (and you can see the different things I've tried commented out) has the same effect

```
bool RasterLayer::SaveLegendAsImage(String& path)
{
 ImageDraw id(1500,2000);
 DrawLegend(id);

// Image img = id.GetStraight();
// Image img(id);

 ImageBuffer ib(id);
 Image img(ib);

 if(path.Find(".jpg") || path.Find(".JPG"))
 {
  JPGEncoder enc(100); // top quality
  if(!enc.SaveFile(path,img))
  {
   PromptOK("problem saving legend");
   return false;
  }
 }
 else if(path.Find(".png") || path.Find(".PNG"))
 {
  PNGEncoder enc; // default 32bpp
  if(!enc.SaveFile(path,img))
  {
   PromptOK("problem saving legend");
   return false;
  }
 }
 else if(path.Find(".tif") || path.Find(".TIF"))
 {
  TIFEncoder enc;  // default 24bpp
  if(!enc.SaveFile(path,img))
  {
   PromptOK("problem saving legend");
   return false;
```

```
 }
}
else if(path.Find(".bmp") || path.Find(".BMP"))
{
 BMPEncoder enc; // default 24bpp
 if(!enc.SaveFile(path,img))
 {
  PromptOK("problem saving legend");
  return false;
 }
}
else
{
 return false;
}

 return true;
}
```

Subject: Re: StreamRasterEncoder puzzle
Posted by mirek on Tue, 15 Apr 2008 19:11:38 GMT
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String::Find returns the position. It should be path.Find(".png") >= 0 etc...

Mirek

Subject: Re: StreamRasterEncoder puzzle
Posted by nixnixnix on Tue, 15 Apr 2008 22:28:04 GMT
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oh man that was dumb

I usually use String::EndsWith() but for some reason used Find instead.

Thanks.

Subject: Re: StreamRasterEncoder puzzle
Posted by mr_ped on Wed, 16 Apr 2008 07:33:38 GMT
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Mirek: I was still missing the point after your comment, as I thought... if both finds return zero, it will lead only to pEnc be NULL, not to corrupted PNG file.

Then I finally realized (after looking into String.h) the JPEG is always stored no matter what input path does contain, because the Find does return either position OR -1 in case substring is not found.
(nixnixnix: looks like I'm even dumber than you)

I got a bit surprised from the case sensitivity too, I'm checking the String.h and I see, that except defining stricmp and strnicmp even on POSIX/WINCE platform, there's no other support in U++ for those things.
It feels somewhat awkward to see thing like "if(path.Find(".jpg") || path.Find(".JPG"))" (and I don't mean the hidden bug this time, but the duplicity of "jpg" text).

Subject: Re: StreamRasterEncoder puzzle
Posted by mirek on Wed, 16 Apr 2008 08:12:45 GMT
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mr_ped wrote on Wed, 16 April 2008 03:33
I got a bit surprised from the case sensitivity too, I'm checking the String.h and I see, that except defining stricmp and strnicmp even on POSIX/WINCE platform, there's no other support in U++ for those things.
It feels somewhat awkward to see thing like "if(path.Find(".jpg") || path.Find(".JPG"))" (and I don't mean the hidden bug this time, but the duplicity of "jpg" text).

Well, I would write it as

if(GetFileExt(ToUpper(path)) == ".JPG")

Mirek

Subject: Re: StreamRasterEncoder puzzle
Posted by nixnixnix on Wed, 16 Apr 2008 12:44:11 GMT
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Thanks, the ToUpper was the bit I was missing.

Hey Mr Ped, its good to know other people can be dumber than me sometimes even if it is only a momentary lapse

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Subject: Re: StreamRasterEncoder puzzle
Posted by mr_ped on Wed, 16 Apr 2008 13:13:59 GMT
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Just to be nitpicking a bit...
Quote:if(GetFileExt(ToUpper(path)) == ".JPG")

the "if(ToUpper(GetFileExt(path)) == ".JPG")" variant is IMHO more optimal.