Subject: Re: What is the minimum OpenGL version required for GLCtrl?
Posted by Tom1 on Fri, 30 Aug 2019 07:26:50 GMT

Hi Mirek,

Yesterday evening I switched over to testing with reference/OpenGL and I'm having the same experience: Crash right in start.

I started to look around and found that commenting out these two lines in MakeWGLContext() in Win32GLCtrl.cpp would prevent the crash and give me in exchange an incredibly slow OpenGL context:

    if(!wglChoosePixelFormatARB(hDC, attr, NULL, 1, &s_pixelFormatID, &numFormats))
     return;

The context reports OpenGL version 1.1.0, so I guess that's the Windows software implementation of OpenGL then.

According to Intel, the "Mobile Intel(R) 4 Series Express Chipset" I have in this old laptop supports OpenGL 2.0 and then some further extensions:

 https://software.intel.com/en-us/articles/opengl-extensions-supported-in-intel-4-series-express-chipsets-and-beyond

In case the hardware does not support the current wglChoosePixelFormatARB() implementation, as is the case with my old laptop, could we have a clean fallback to a more basic OpenGL context in GLCtrl? In this case e.g. MSAA and double buffering could be dropped to maximize compatibility with old hardware. Of course it would be nice to have any OpenGL platform give its best possible performance, but I guess that's too much work to check every supported feature separately.

Most importantly, we should avoid the crash when OpenGL does not fill the requirements of GLCtrl.

Best regards,

Tom