

CygwinX Accelerated OpenGL Support

Portions of the tree related to and notes on adding indirect OpenGL acceleration to Cygwin/X:

Directory/File	Difficulty	Notes
<i>xc/config/cf</i> <i>cygwin.cf</i>	Done	GlxUseWindows enables/disables indirect rendering support.
<i>xc/programs/Xserver/</i> <i>Imakefile</i>	Done	Link server to Xserver/GL/windows/libGLcore.a when GlxUseWindows is true. Also add -lopengl when GlxUseWindows is true.
<i>xc/programs/Xserver/GL/</i> <i>Imakefile</i>	Done	Set CORE_SUBDIR to 'windows' when GlxUseWindows is true.
<i>xc/programs/Xserver/GL/windows</i> <i>indirect.c</i>	Done Hard	New directory. Base off of Xserver/GL/apple/indirect.c and Xserver/GL/apple/aglGlx.c, which are both similar since they implement the same feature for different versions of OS X. aglGlx.c looks easier to follow since it is less dependent upon headers in hw/darwin/quartz/xpr and xc/lib/GL/apple. The main thing that this code has to do is to translate between window handles and OpenGL surface handles. It may also have to wrap the names of the Win32 OpenGL functions in case those names do not match what the GLX layer is expecting. In addition, we may have to massage the Win32 OpenGL interface into looking like OpenGL 1.4 or some such, since Win32's OpenGL defines everything over 1.2 as an extension (I think). Note that the w32api may already provide this sort of an interface for us.