Using Purify with VAPOR

base.mk

Purify version 7.0.1.0-002 appears to be incompatible with OpenGL. To work around this issue vaporgui can be linked with Mesa. The following steps should be followed:

1. ssh -X to storm
2. edit the base.mk file, prefixing the link line with the 'purify'
command (see attached base.mk file at the top)
3. Set the LD_LIBRARY_PATH:

   setenv LD_LIBRARY_PATH /glade/proj3/DASG/VAPOR/third-party/apps-2.2.0/Linux_x86_64/Mesa-7.8.2/lib/

(the above path is current as of 6/24/2014)

4. Set the PURIFYIOPTIONS env variable:

   setenv PURIFYOPTIONS "-enable-exclude=yes -exclude-libs=libGL.so -cache-dir=/fs/blizzard/home/clyne/cache -always-use-cache-dir"

Be sure to replace "clyne" with your user name

5. force a relinking of vaporgui. E.g.

   touch main/main.cpp
   make

6. run the executable:

   ../../targets/Linux_x86_64/bin/vaporgui

Notes

1. There will be lots of error messages reported by purify that occur inside of various system libraries, Mesa, and Qt. These can be "suppressed"
2. vaporgui runs extremely slowly over Mesa
3. DVR and Iso should not be enabled as the 7.8.2 version of mesa does not support programmable shaders (and would be horrendously slow if it did)