PBS/ PBS Pro and Wine

Basic commands

USQ's HPC Facility is Linux based so will not run Windows software by default without the use of an emulator. Wine is used on some HPC servers to allow users to run Windows software.

Please Note: not all Windows programs are suitable to run on a Linux based system using Wine therefore your program might not work in the HPC environment. Also, the program might not run as efficiently as the same Linux program.

Submitting a Wine job via PBS

Windows programs can be submitted to the HPC queue called *default* using basically the same type and style of PBS command files that are used by Linux programs. Below is an example of a PBS command file used to run the program *GOEq14Nov11.exe* on a HPC queue.

```
#!/bin/bash -l
#
#### job name & output files
#PBS -N FortranComputation
#
#### select resources
#PBS -l nodes=1:ppn=1
#PBS -l walltime=0:10:00
#PBS -l mem=4g
#
#### request that regular output (stdout) and
#### terminal output (stderr) go to the same file
#PBS -j oe
#
#### mail options
#PBS -m ae
#PBS -M ruser@usq.edu.au
#
#### queue name
#PBS -q default

####
#### change directory to working directory
echo "Changing directory to work area"
cd $PBS_O_WORKDIR
pwd

####
#### create a dummy display as Wine
#### will not run without a display
echo "Picking a unique display"
ncpus=`grep vendor_id /proc/cpuinfo | wc -l`
display=1
while [ $display -le $ncpus ] ; do
    if [ ! -e /tmp/.X${display}-lock ] ; then
        break
    fi
    display=`expr $display + 1`
done
echo "Unique display found: $display"

echo "Starting dummy X server" Xvfb
:${display} > /dev/null 2>&1 & jobs
export DISPLAY=:${display}
####
#### starts computation
wine GOEq14Nov11.exe

####
#### clean up after display
echo "Killing dummy X server"
kill -TERM %1
# This should already be cleaned up, but just in case
rm -f /tmp/.X${display}-lock
rm -f /tmp/.X11-unix/X${display}
```

References:

1. [WINE^{HQ}](#)