Interactive Cuda Demo on Palmetto using VNC

Software Prerequisite

Linux
- TigerVNC or -Chrome vnc viewer

Windows
- Putty.exe
- Tigervnc or chrome vnc viewer

Instructions

1. ssh -X username@user.palmetto.clemson.edu
2. module load cuda-toolkit/7.5.18
3. cp -r /software/cuda-toolkit/7.5.18/samples/ .
4. qsub -l -X -l select=1:ncpus=4:ngpus=1:gpu_model=k40,walltime=02:00:00
5. LANG=C && /opt/TurboVNC/bin/vncserver
   a. It will then ask you to set up a password (I use a simple password such as
      “visual”) and a follow up question which you can enter “n” when prompted for a
      view only password.
6. Next take note of the node and port number which format is “nodeXXXX:Y” where XXXX
   is the node number and port is Y.
   Eg. node0512:1 as shown in the example screenshot below

7. Next open a new terminal to setup a connection to this node with the following
   command:

   ssh -L 9234:node0512.palmetto.clemson.edu:5901 username@user.palmetto.clemson.edu

   ● Where 9234 is a user defined number which is usually large to ensure that port is
     not taken by another node on palmetto
   ● Node0512 is based on the nodeXXXX we obtain in the first terminal where we
     established a VNC server
   ● 5901: represents a default 5900 that you add the Y port number we obtained
     from the server
   ● username@user.palmetto.clemson.edu: is your palmetto username connection.
8. Next you need to obtain a VNC server client such as TigerVNC or VNCVIEWER
9. Once the VNC Viewer is running enter the following Localhost:9234
10. Next navigate to where you saved your sample folder and navigate to
    2_graphics/Mandlebrut/.
11. Execute the command DFLT_PATH=Lib64 make to make the sample.
12. Next execute the Mandlebrut executable by vglrun ./Mandlebrut
13. A window should now be displayed with the visualization example.