

Interactive Cuda Demo on Palmetto using VNC

Software Prerequisite

Linux

-TigerVNC or -Chrome vnc viewer

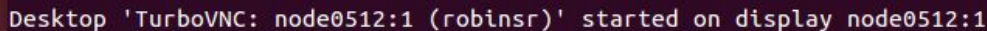
Windows

-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 -I -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



```
Desktop 'TurboVNC: node0512:1 (robinsr)' started on display node0512:1
```

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.