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Sentaurus primer – getting started

Overview

1) Login to the server via SSH
2) Use a forwarding program to display graphical information from the server (Xming, XQuartz or VNC Viewer)
3) Run Sentaurus
4) Install a SCP/SFTP client for file transfer (WinSCP for Windows)

Detailed instructions for Mac (not tested):

- Login to the server via SSH. ([source: instructions on the UCSD website)](#)
  In the terminal, enter `ssh -X -L 5899:localhost:5900 username@ieng6-###.ucsd.edu`
  Where ### is the server number. Server number 702 is recommended for stability, but numbers 240 to 253 work too (see list at the end of this document).
- Use the password "`Che8ron-`".
- Install a forwarding program, [XQuartz](#) or [VNC Viewer](#).
- Start XQuartz or run "`vncserver`" on the command line.
    For vncserver:
    - Go to Finder > Go > Connect to Server... (or press CMD + K) and enter "`vnc://localhost:5899`".
    - Important note: you will need to kill the session once you are done working. In the command line, type "`vncserver -kill :##`" where ## is the server number. The number ## is in the command window as "`New 'ieng6-243.ucsd.edu:4 (na299x)' desktop is ieng6-243.ucsd.edu:##`".
    - See detailed instructions [here](#) if you are using vncviewer/vncserver.
- See Note 2 and Note 3
    - if you have issues killing the session.

- You can then run Sentaurus in the PuTTY command line. For instance, to run Sentaurus Workbench, type "**swb &**".
- Install a convenient SCP/SFTP client for file transfer (see [here](#)).

Detailed instructions for Windows:

- Install the [PuTTY SSH client](#) (to connect to the unix server where Sentaurus is run).
- See instructions in section "Configure a remote host in PuTTY" at https://crl.ucsd.edu/handbook/vnc/index.php to create your connection. Server

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number 702 is recommended for stability, i.e. instance ieng6-702.ucsd.edu, but numbers 240 to 253 work too (see link above and list at the end of this document).

- In PuTTY, open the SSH tunnel connection you just configured. The password is "`Che8ron-`".

- Download a display server, for instance [Xming](#) or [VNC Viewer](#).
  a) If you are using Xming, just run the application – no interface will open but the app icon will appear in the Windows taskbar.
  b) If you are using vncviewer/vncserver, first type "`vncserver`" in the PuTTY command window. Then open VNC Viewer and configure a new connection if you haven't done so already.
  To configure a new connection: Go to File → New Connection. In the "VNC Server" field, enter "localhost:0". In the "Name" field, enter the name you want to give to this connection, for instance "localhost0". Then press "Ok".
  Once the connection is configured, click on its icon and enter the password "`Che8ron-`".

  Important note: If you use vncviewer, you will need to kill the session once you are done working.
  In the PuTTY command line, type "`vncserver -kill :##`" where ## is the server number.
  The number ## is at the top of the VNC Viewer window and in the PuTTY window as "New 'ieng6-243.ucsd.edu:4 (na299x)' desktop is ieng6-243.ucsd.edu:##".
  See detailed instructions [here](#) if you are using vncviewer/vncserver.

- You can then run Sentaurus in the PuTTY command line. For instance, to run Sentaurus Workbench, type "`swb &`".
- Install a file transfer client such as [WinSCP](#) (to transfer files between the unix server and your local machine).

Notes:

- Note1
  UCSD Resources for using Putty & VNC:
  https://crl.ucsd.edu/handbook/vnc/
  https://ucsdservicedesk.service-now.com/its?id=kb_article_view&sysparm_article=KB0030426&sys_kb_id=52fdf3cddba63fc0bd30f6e9af96192c
- Note 2
  To find open vncserver connections:

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Command: "**`ps -ef |grep vnc`**" and find line with Xvnc :## where ## is the session to kill.
https://superuser.com/questions/549386/what-is-the-correct-way-to-kill-a-vncsession-in-linux

- Note 3

If a connection cannot be killed (source https://crl.ucsd.edu/handbook/vnc/index.php)
Following error message:

```
Can't find file /home/linux/ieng6/na299x/na299x/.vnc/ieng6-
242.ucsd.edu:14.pid
You'll have to kill the Xvnc process manually
```

→ type in the PuTTY command line "**`ps -ef |grep vnc`**" and find line with Xvnc :## where ## is the session to kill.

The Processor ID (PID) number is at the beginning of the line. For instance in the following example, the server window is 2 and the PID number is 6788:

```
ee15wi2+  6788     1  0 Jan08 ?        00:02:47 /software/common/bin/Xvnc
:2 -desktop ieng6-242.ucsd.edu:2 (ee15wi20cv) -auth
/home/linux/ieng6/ee15wi20/ee15wi20cv/.Xauthority -geometry 1024x768 -
rfbwait 30000 -rfbauth /home/linux/ieng6/ee15wi20/ee15wi20cv/.vnc/passwd -
rfbport 64037 -fp catalogue:/etc/X11/fontpath.d -pn
```

To kill this process, type "`kill 6788`" in this case, where 6788 is the PID number.

- List of available servers:

ieng6-240.ucsd.edu	ieng6-241.ucsd.edu
ieng6-242.ucsd.edu	ieng6-243.ucsd.edu
ieng6-244.ucsd.edu	ieng6-245.ucsd.edu
ieng6-246.ucsd.edu	ieng6-247.ucsd.edu
ieng6-248.ucsd.edu	ieng6-249.ucsd.edu
ieng6-250.ucsd.edu	ieng6-251.ucsd.edu
ieng6-251.ucsd.edu	ieng6-252.ucsd.edu
ieng6-253.ucsd.edu	ieng6-254.ucsd.edu