

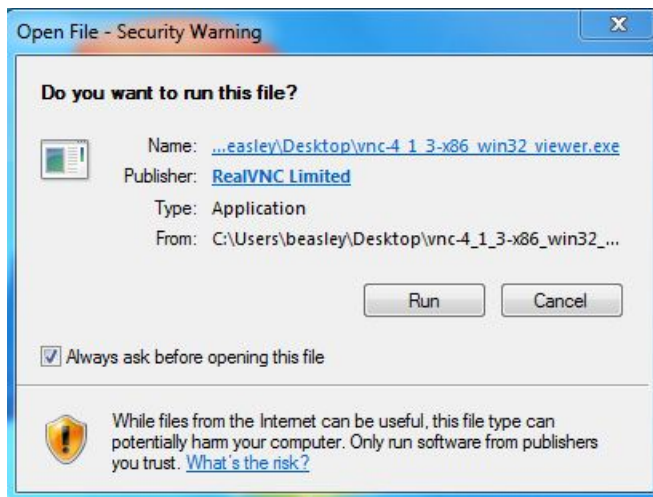
SEM Startup Procedure

The SEM at FCAEM is a JSM-5900 is a scanning electron microscope with an EDAX detector. The instrument can be remotely controlled by use of freeware software called VNC. It is recommended that if the software is downloaded, use the viewer only. Follow the following procedure to begin working on the FCAEM SEM.

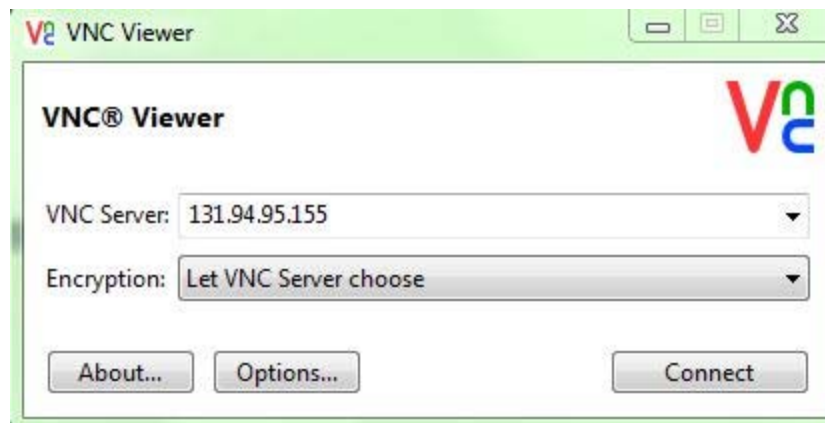
- 1) Download VNC Viewer for your computer, a recommended website is
 - <http://www.realvnc.com/download/viewer/>
 - Download the VNC Viewer appropriate for your computer: Windows 64-bit or 32-bit or VNC Viewer for Mac OS
 - Once the program is installed, a VNC icon will appear on the desktop. Open the VNC program



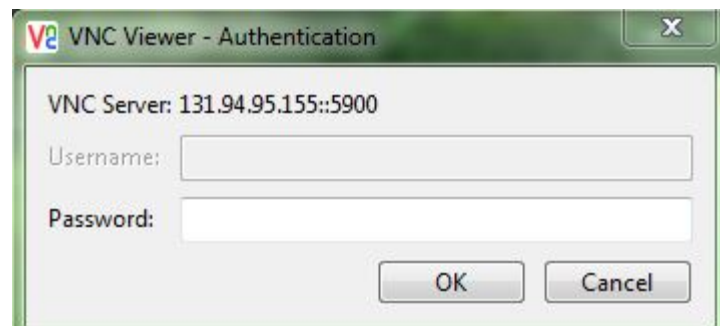
- A pop up screen will appear with the Run command, select “Run”.



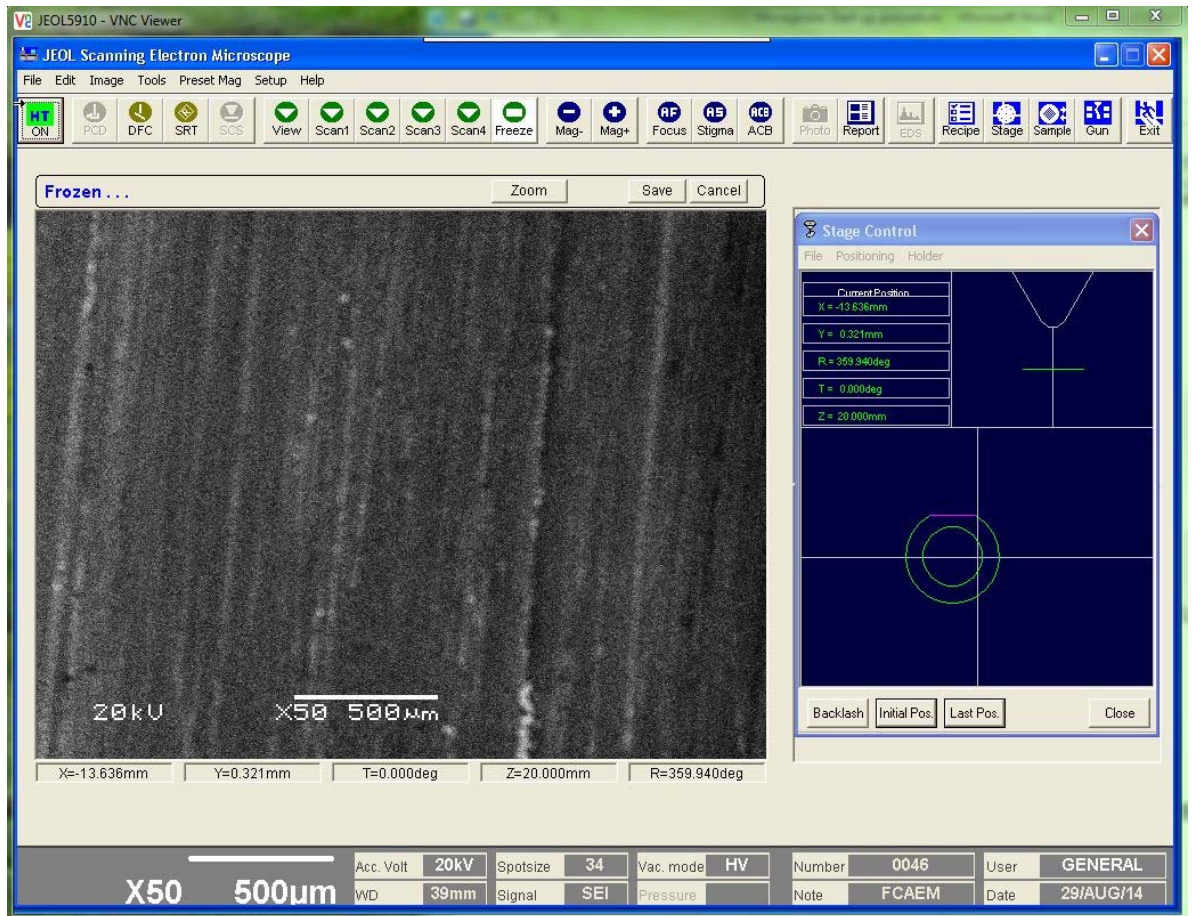
- A VNC viewer window will appear. Type in the SEM VNC server IP address “131.94.95.155”. Click on the “connect” button.
- You may see a VNC Encryption message window, if so click on the “continue” button.



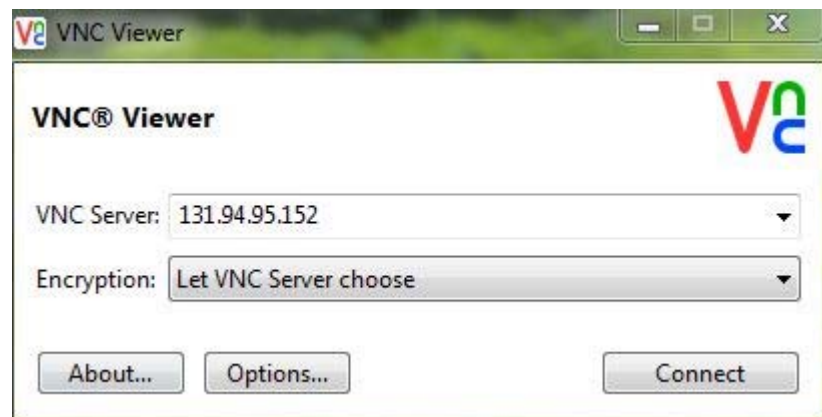
- Type the password given by EPMA staff to initialize SEM software select “OK” to initialize the SEM program.



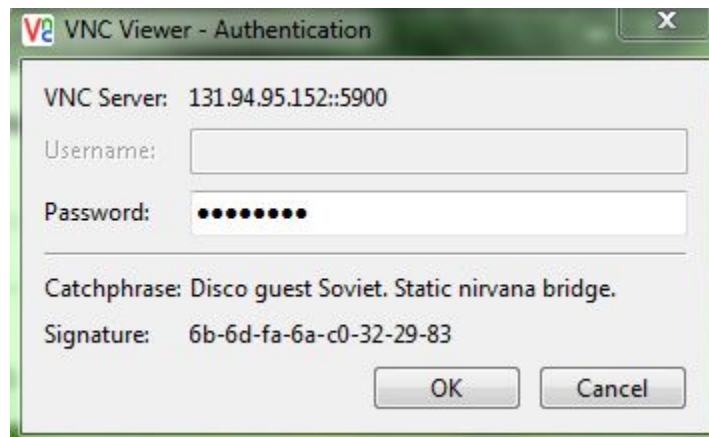
- This action will initialize the JEOL SEM software and the following window will appear:



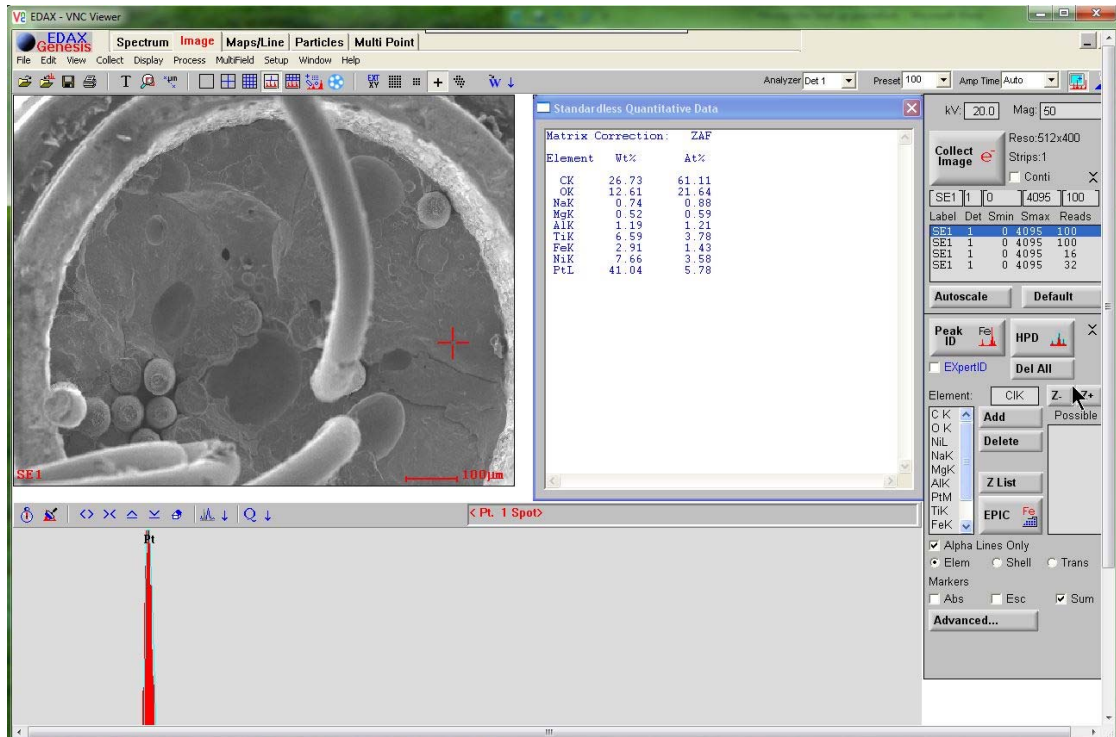
- This window is the main Graphical User Interface (GUI) for the SEM. In this window you can adjust focus, contrast, brightness, magnification, move the stage etc.
- Click on the VNC viewer icon again and click on “run”. Then input the VNC server IP address “131.94.95.152” and click on “connect”



- Type in the password given to you by the FCAEM staff and click “ok”



- Now a second VNC window should appear and this is new window is the EDAX interface. It helps to have two monitors available on your computer in order to view multiple VNC screens at one time.



- Open an internet browser (preferably Firefox) and input the IP address “131.94.95.138” in the address bar. This action will open up the video viewer for the SEM. Click on “Video 1” button to maximize video window.



- At this point you have three windows open for operation of the SEM. We suggest using two monitors to keep the “Axis Video Server” open and the main SEM GUI viewer visible. The EDAX viewer can be minimized until you want to use the EDAX system.

Filament Startup

- To turn on the beam, click on the “HT Ready” button on the left corner of the screen.



- When the beam is on you should see the button turn green.



- When you are finished with the SEM turn off the beam by clicking the “HT ON” button and close out all VNC and internet browser windows