

A. Logging in

In order to use the microscope you must have an account on the Windows XP computer.

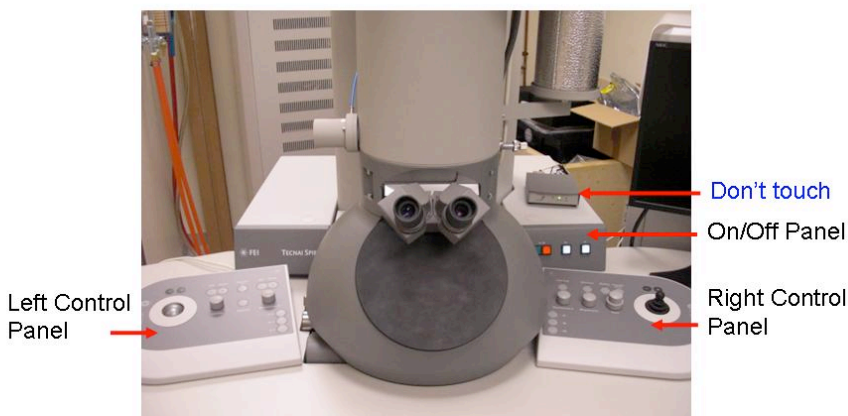
To start using the microscope simply log in to Windows XP

From this log-in the microscope knows who you are, what your level of microscope user interface is (user or expert), and where to find your personal settings for microscopy.

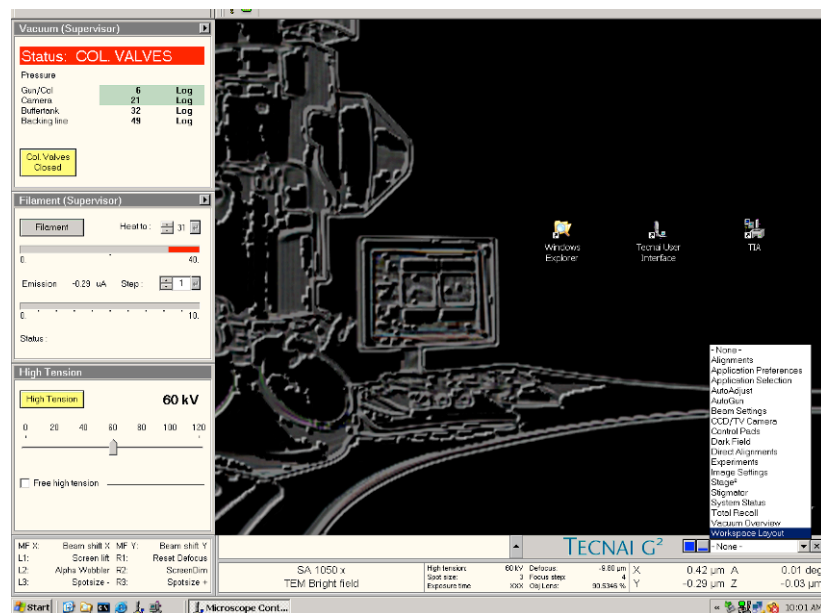
B. Get Oriented

This is what you will see sitting in front of the TEM. Arrows point to various panels that will be referred to in the later part of this manual.

1. Make sure that the two white light buttons on the On/Off panel are on. These two buttons are labeled “Vac” and “HT”. If they are not on, press the button to turn it on.



2. On the computer screen, open “Tecni User Interface” program. If the microscope is not running, contact the microscope supervisor (starting the microscope software requires Windows XP privileges you may not have).



FEI Tecni Task Bar:

Most of the functions can be found in this task bar. For example: To view Vacuum System; To Center Stage2 and Select type of sample holder.

B. Making the first image

1. Fill the cold trap with liquid nitrogen and check the vacuum. This is usually done by the first user of the day, or if you come in late in the afternoon and the liquid nitrogen has evaporated. Check and decide.
3. Make sure HT and Vacuum is **ON**.
4. Center CompuStage goniometer. Then insert a specimen into a specimen holder and insert the holder into the microscope.
5. Switch the filament on to the required setting.
6. If the vacuum in the specimen area is good enough, open the column valves. The beam should now be visible.
7. Select a reasonable magnification (Magnification knob; not too high, initially the LM range is often good).
8. Center (with the left-hand track ball) and adjust (with the Intensity knob) the beam, and focus (Focus knob) the image
9. Find a suitable specimen area with CompuStage goniometer
10. Select a suitable magnification and focus the image.
11. Adjust the Intensity setting to give a normal exposure time (1 second or more).

C. Digital Imaging Software

To acquire an image, you need to flip the screen so that the camera can see the images. The button to open the screen is on the left side of the scope, as shown.

Open Tecnai Imaging & Analysis Software

Here you can Preview and Acquire your image.

Save your images to your folder. To collect your images by flash drive or CD Export Images to 2nd FEI computer

If you need the PC of the microscope but do not require the microscope user interface (e.g. for processing data or transferring them via a network to elsewhere), you can close the user interface. This has no effect on the running of the microscope.

When you have completed taking your images center the CompuStage before removing specimen holder.

D. Logging out

When you are finished with working with the microscope, you simply log off (in the Start menu, select Log Off).

Do not select shut down the computer because that will also effectively shut down the microscope.

If you only log off, the microscope will keep running normally.



