

# M-2000 Woollam Ellipsometer

Log in using the touch screen display located on the left side of the wall just as you enter room 302.

The following instructions are for the operational aspects of the Woollam M-2000 Ellipsometer.

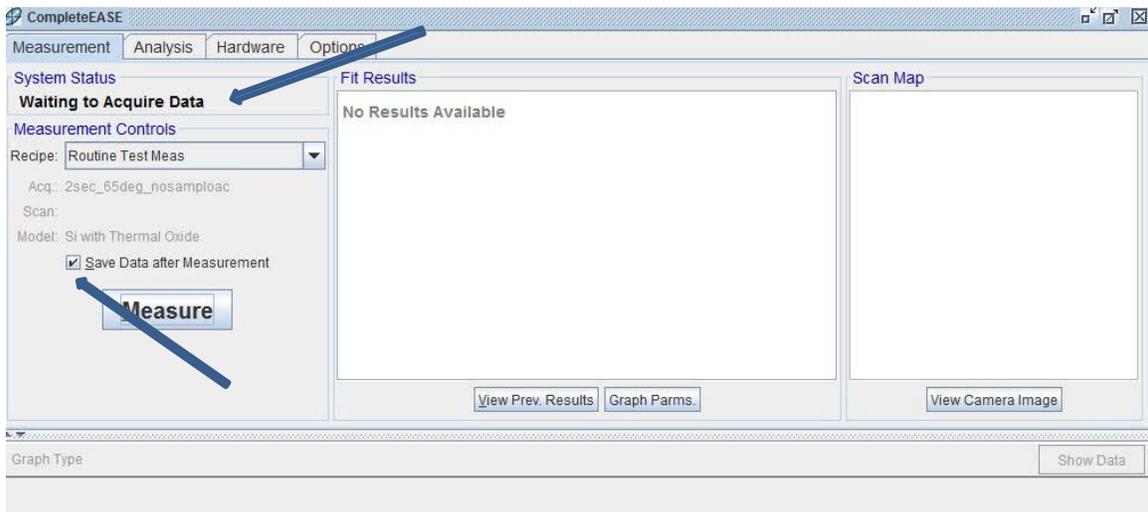
Data analysis is done in the imaging center on the first floor and all users should use the Woollam tutorial located on the IAC computer suite computers.

## Instructions for use

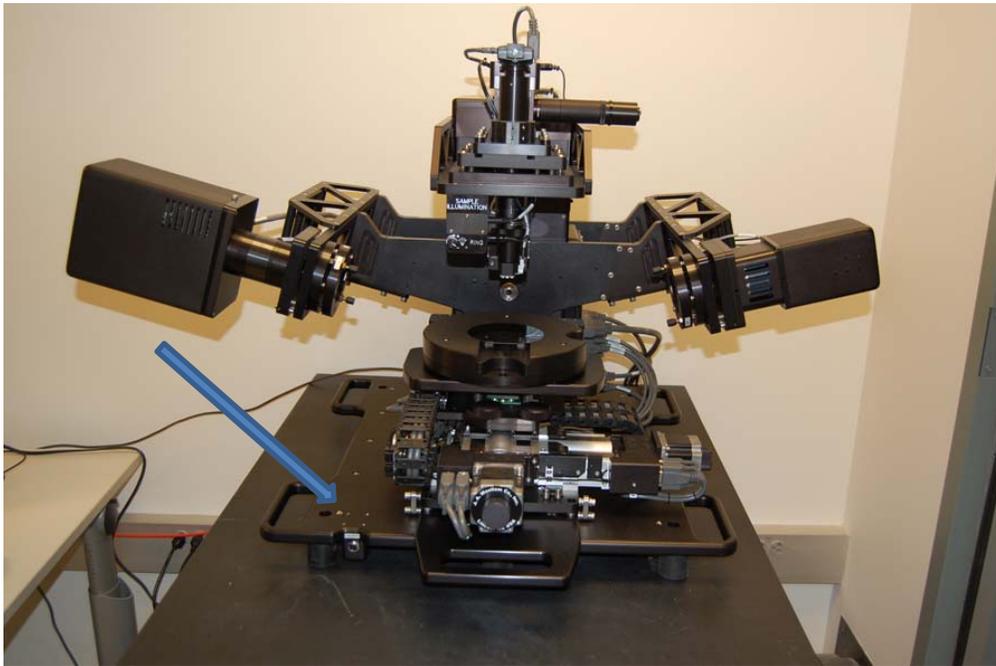
1. Turn on the lamp sources located beneath the Ellipsometer table. Press and release the lamp power button, then press and hold for 5 seconds the lamp ignition button. One should wait 30 minutes before collecting data to ensure the lamp sources are fully warmed up.



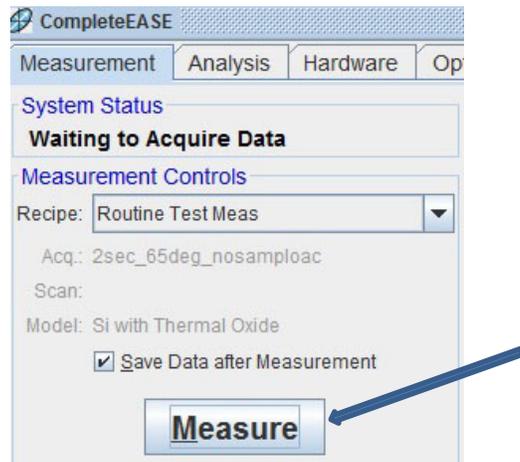
2. Open **Complete Ease** to begin the data acquisition (Located on the Desktop Computer). The software will scan the hardware and initialize the drives to their home position (this may take a few minutes).
3. The system status should now read **“Waiting to acquire Data”**.



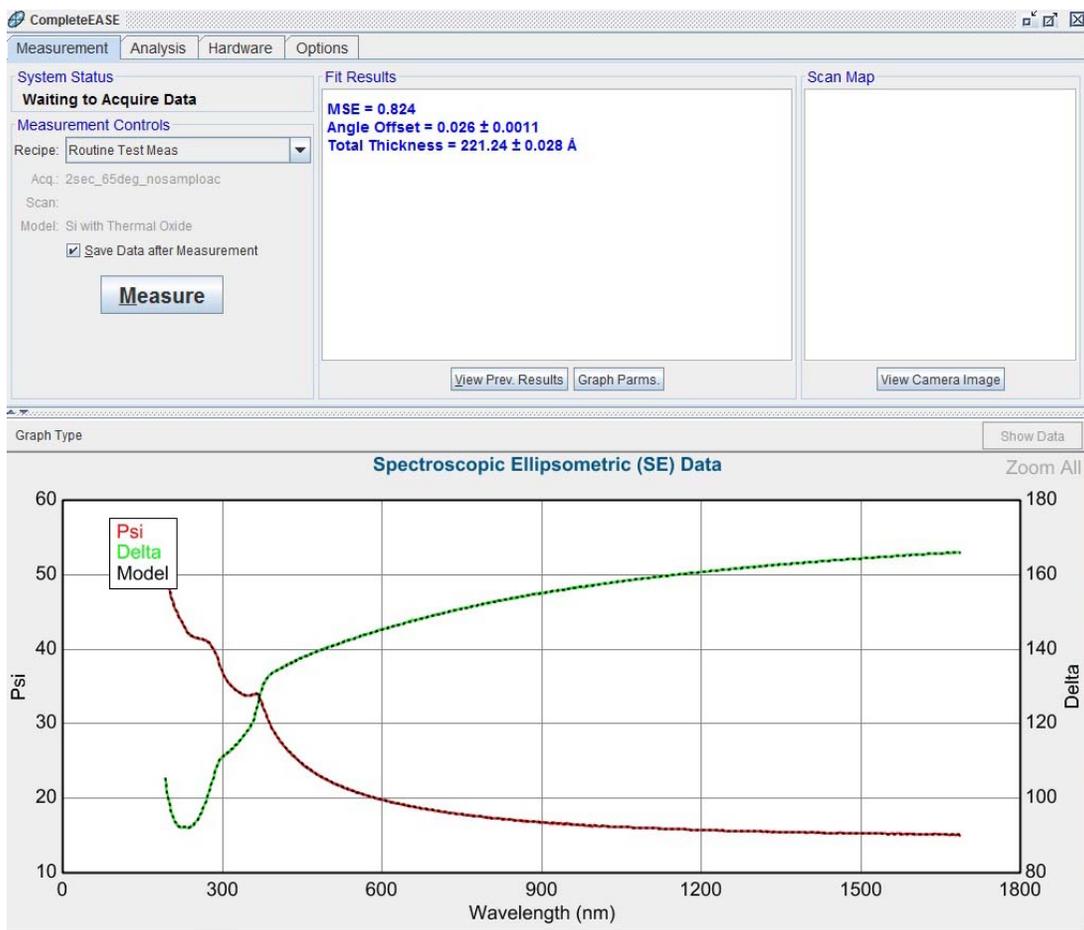
3. Make sure the “Save Data after Measurement” box is checked.
4. Place your sample on the head and turn on the vacuum pump to hold your sample in place. The switch is located on the lower left side of the frames (see below)



5. Select a recipe in the “**Measurement control**”. It is possible to select a preprogrammed recipe or to create your own. The recipe sets up the variables for the scan, such as the range of the incident angle and the dwell at each step. If you are unsure, you may select “**Routine Test Measurement**”.
6. Press the “Measure” button to begin the measurement.



6. You will be prompted to select a saving location for you data, you may choose the Common directory and create a folder for your future use.
7. The system will now start taking data
8. Once the Data Run has completed, a graph will appear in the lower window and display both PSI and Delta graphs.



9. Data Analysis is to be performed in the IAC center computer suite where additional licensed copies of the software can be found. Copy your data to a key drive and take it to the computers in the IAC computer center.
10. Upon completion of your measurement, turn off the lamps and remember to **sign the logbook** and **log out of the login control system**.

### **Emergency Information:**

Medical Emergencies: **Contact 911 and Public Safety (609) 258-1000**

Room / facility emergencies: **Contact Public Safety (609) 258-1000**

Issues related to the instrument:

1. **Contact IAC Staff.**
2. **Leave system as is.**

Audible/Siren Emergency Alerts:

**Follow previous steps and leave the building.**

### **Emergency Contact Information:**

Nan Yao: Office (609)258-6394; Cell (908) 922-2236 Email: [nyao@princeton.edu](mailto:nyao@princeton.edu)

John Schreiber: Office (609)258-0034; Cell (215) 431-4670 Email: [js51@princeton.edu](mailto:js51@princeton.edu)

Paul Shao: Office (609)258-3851; Cell (847) 721-086 Email: [pshao@princeton.edu](mailto:pshao@princeton.edu)