JEOL JSM-7001F SEM SOP Short

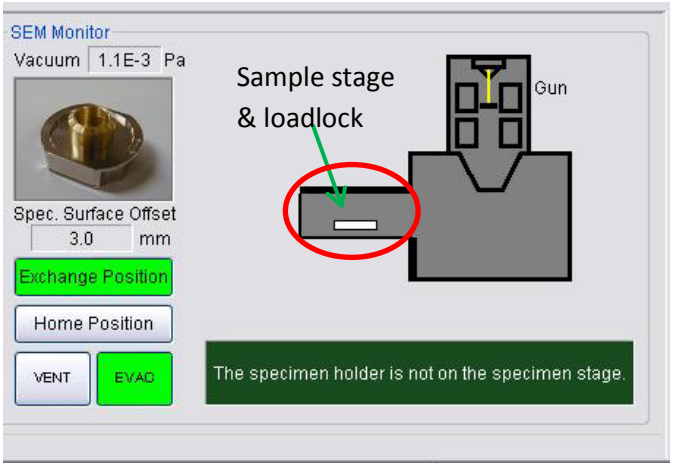
UNT Cleanroom

1. Imaging operation:

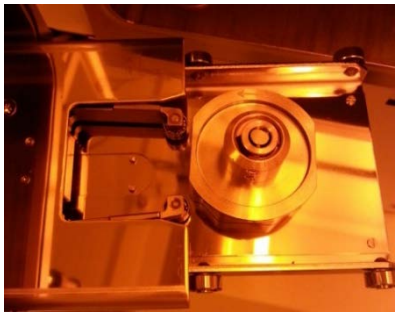
(1) Open the

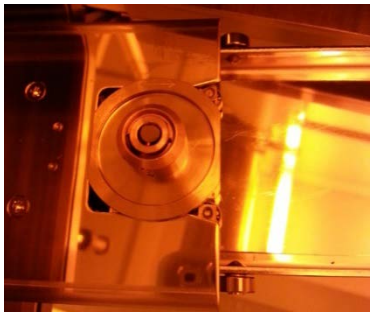
program and log in with your user name and password.

(2) Make sure the sample stage icon is in the loadlock. Then vent the chamber by click “VENT” and loose the clamp on the loadlock. Wait for the “Vent” light on the loadlock side to stop flashing.

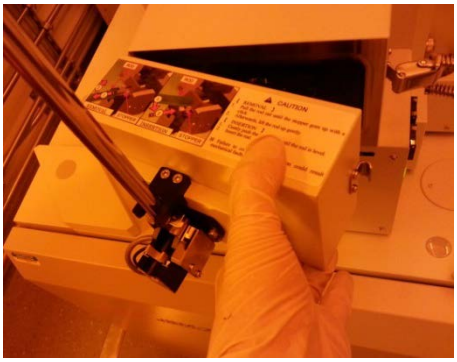


(3) Open the loadlock and push the sample holder onto the holding mechanism. Make sure the arrow side is on the top. Once the sample is secured, close the loadlock door and put the clamp back on. DON NOT PUSH on the ROD!!

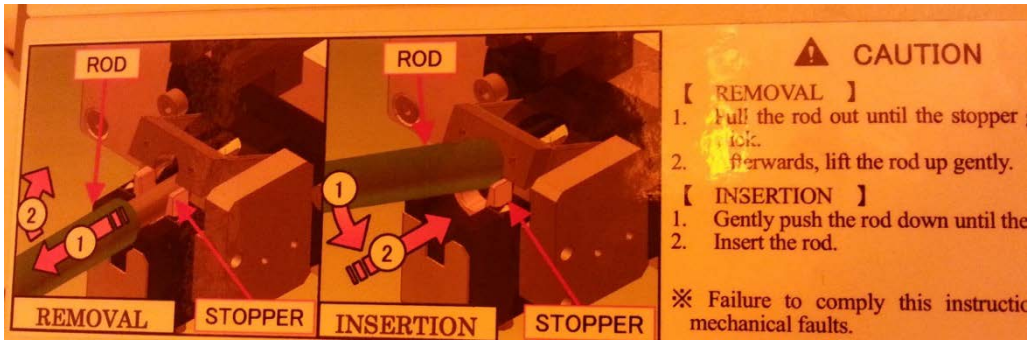


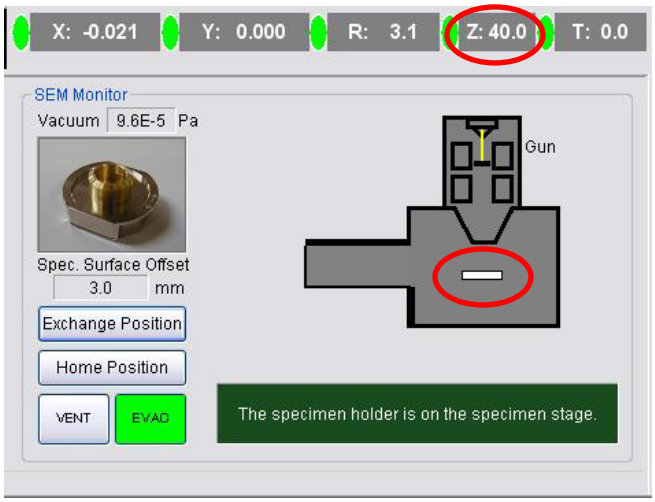


(4) Click “EVAC” to evacuate the loadlock chamber. It will take few minutes. Wait until the “EVAC” button on the loadlock side wall stop flashing and the “Vacuum” reading is <3 E-4 (Pa)!

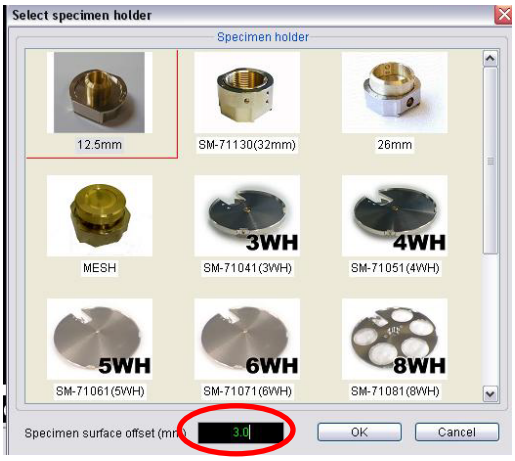


(5) Use the ROD to insert the sample stage into the main chamber. “HLDR” button light will be on. The stage icon should be in the main chamber and Z value is 40mm.

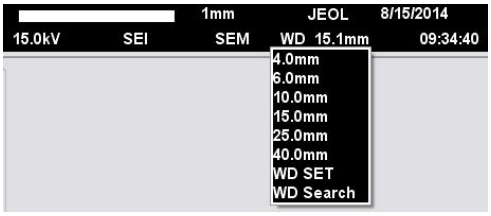


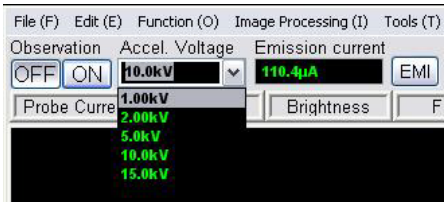


(6) A holder selection popup will appear. Select the correct the sample holder and put offset in if needed (offset value is how much taller from the sample surface to the top edge of the sample holder)



(7) Choose the WD (normal setting is 10 mm), click “OK” to have stage Z moved to the WD setting. Choose the “Accel. Voltage” (normal setting at 10KV). Make sure the is green.



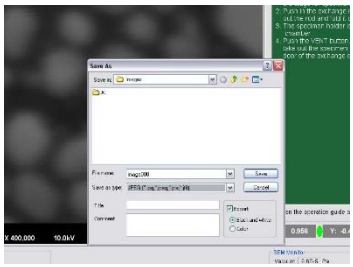


(8) Turn on the GUN by clicking “ON” .

(9) Make sure the “Mag” is at the lowest 25X to start. Press/Click “ACB” to auto adjust the initial brightness and contract. The sample image should be shown.

(10) Use the “Magnification” adjustment knob to zoom in. For lower magnification <30K, Use track ball RING to adjust the mechanical Z height of the stage to get rough focus first! Once magnification >30K, switch to the optical focal length adjustment knob for fine adjustment.

11) Take a photo by clicking “Photo”. The popup shows the “Images” folder and saved it under your name folder.

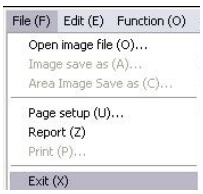


2. Exit Operation:

(1) Turn off the GUN by clicking “OFF” .

(2) Make sure setting is at low magnification and click “Exchange Position” to lower the stage to the exchange position for transferring. Z should be at 40mm.

(3) Use the ROD to retrieve the sample holder from main chamber to loadlock. The “HLDR” button light will be off. The sample stage icon will be in loadlock.

(4) Click “VENT” to vent the chamber and follow operation 2. (3) to take sample out and evacuate the chamber until the vacuum reach 5E-4.

(5) Exit the program by clicking “Exit” under File tab. Then exit the JEOL Log in page.