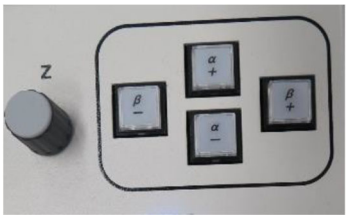
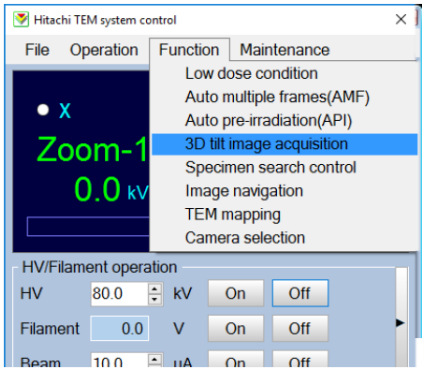
**TEM Tomography Instruction (Hitachi HT7800)**

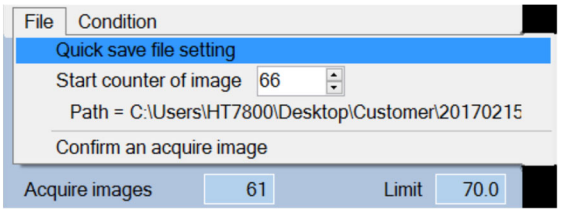
1. Load sample, turn on TEM and perform axis adjustment
2. **Find an interesting area**. The best range is -250um<x<250 um
3. **Find Z height :** Click "lens reset", choose the 20x mag, click on wobbler and focus image by **Z**




4. **Focus sample by** using auto focus or focus knob
5. Click **3D tilt image acquisition** in the Function to display the 3D tilt image acquisition TEM window.

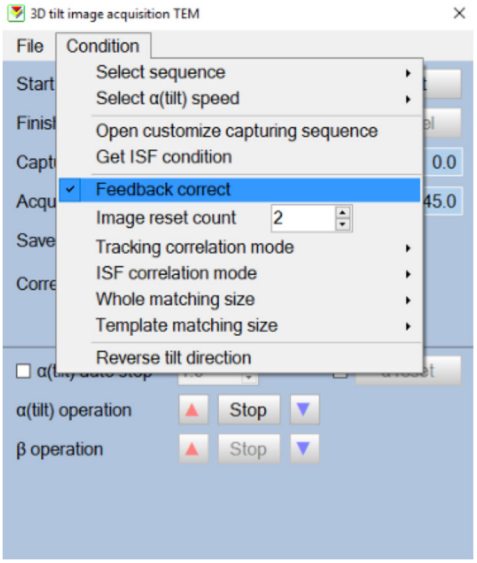



6. Click the **File**, set quick save path of the images in the File to set save location and file name of the Tilt series images.

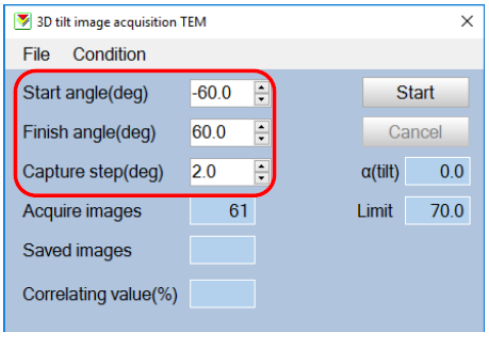



7. Click **3D tilt image acquisition** in the Function to display the 3D tilt image acquisition TEM window. Click **Condition** on the menu bar and set the following conditions.

   Select sequence: auto
   Select α tilt speed: slow
   Click on ISF condition at the photographing magnification and angle 0
   Confirm that the Feedback correct is checked
   Image reset count: 2
   Tracking correlation mode: whole area search
   ISF correlation mode: whole area search
   Whole matching size: 1024x1024
   Template matching size: 1024x1024

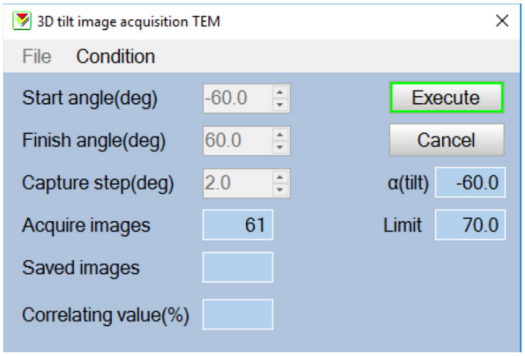



12. Input **start** angle, **finish** angle, capture **step** degree, click **start**




13. Since the center of the target may be shifted, bring it back to the center of field of view with the tracker ball. Adjust brightness knob so that the histogram is centered.

14. Confirm that the target is at the center of the screen and click the **Execute button**. (When click the [Start] button, the [Start] button changes to [Execute] Button.). Sequential tilt and image acquisition starts. It will take some time depending the angle rotation range you set. Please do not touch or change any settings on the microscope and the computer during aquisition.




15. When finished. Turn off the TEM as normal procedure.