Stylus Profilometer

Power on procedure

1. Switch on the main power.
2. Switch on the emergency machine button (EMO box).
3. Switch on the PC and open the Vision 64 application.
4. Initialize the auto stage position (X, Y and Ɵ rotation).
5. Do the calibration with the step height standard specimen.
6. Click on the unload sample option on the toolbox.
7. Load the sample at the center of the stage and click on the load option on the toolbox.
8. Click the tower down option.
9. Set the parameters in the measurement option for (a) Line Scan and (b) Mapping:

Measurement setup option window (Image)

(a) Line scan measurement setup: Scan type – Standard Scan, Length – to be decided by users, Range – decided by the user as per the thickness of the film, Duration – should not be below 20 sec (also depend upon the roughness of the sample), Stylus type – Radius 2 and 12.5 µm available, Profile – Hills and Valley, Stylus Force – 1 to 15 mg.

(b) Area scan measurement setup: Select the mapping using the Scan type option.
(i) Click the option which is marked by the red circle in Fig. (a)
(ii) Select the right extreme of the scanning area and click the next button of Fig.(b).
(iii) Select the left extreme of the scanning area and click the done button of Fig. (c).

(a) (b) (c)
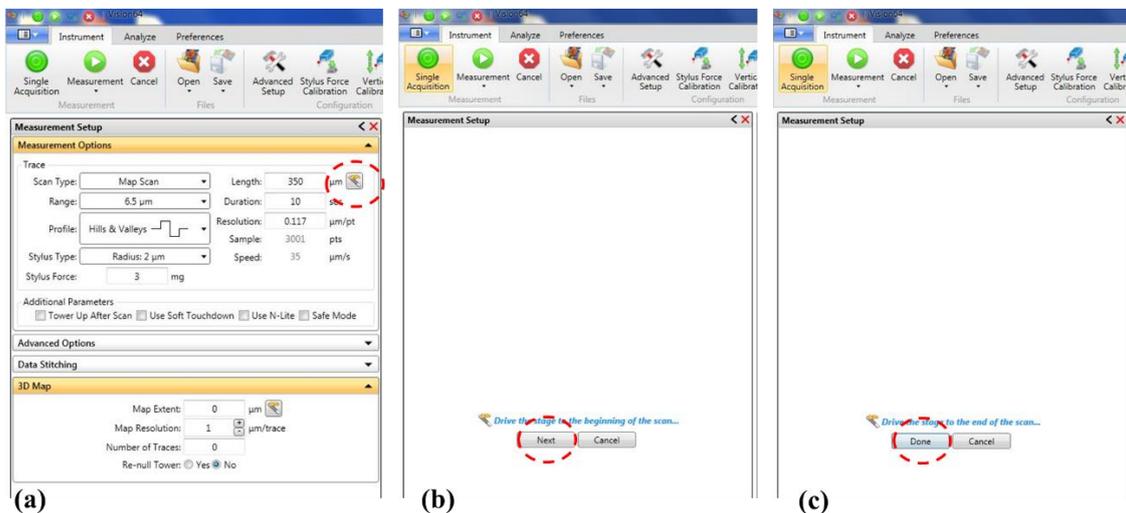
(iv) Set the length of the scanning area using the option encircled in Fig. (d).
(v) Set the resolution and number of tracks for the scanning area.
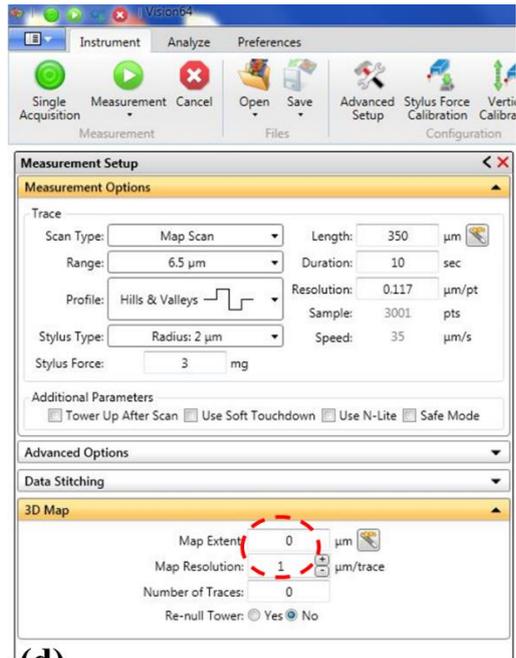
(d)

10. Click the Measure option on the toolbox and wait for scanning.
11. After completion of the scanning, right-click on the graph and save as bitmap also export the CSV file.