How to calibrate a LynxEye or LynxEye XE/XET

Primary optics: 1mm divergence slit and 2.5 deg. soller (hidden under plate between slit and tube for D2 Phaser)

Sample: NIST Corundum (Bruker corundum for D2)

Secondary optics: 2.5 degree soller

Open DIFFRAC.Maintenance and go to the Detector tab.

Change the calibration settings to match the following screenshots.

For D2 (the theoretical peak should be typed in as 35.129 and it may change to a different value automatically):

For D8 Advance/Discover:

DIFFRAC.DETECTOR - User: Lab Manager - Application Type: Powder Diffraction - Instrument: MeasSrv(D2-004583)/D2-004583

File   Edit   View   Detector   Help

TOOLS   DETECTOR   CONFIGURATION   DB MANAGEMENT   LOG

Detector   Lynxeye

- Load and Save the Detector State
- Resolution And Offset
  - Results

Resolution and Zero Offset Determination

Calibration by Theoretical Calculation

Number of Channels		192
Channel Size	[mm]	0.075
Detector Size	[mm]	14.4
Secondary Track Radius	[mm]	141
Detector Angle	[°]	5.831266462

Calculate   Advanced Settings

Calibration by Measurement

Theoretical 2Theta Peak	[°]	35.14661151	☑ Theta=2Theta/2
Theoretical Theta Peak	[°]	17.573305...	Use Actual
Detector Opening	[°]	5.823381089	
Measurement Range	[°]	1.000	
Step Size	[°]	0.100	
Time per Step	[s]	10.000	

Sample Rotations

Phi   Speed [1/min]   0.0

Save Experiment

ⓘ **Found New Hardware**   ✕
Your new hardware is installed and ready to use.

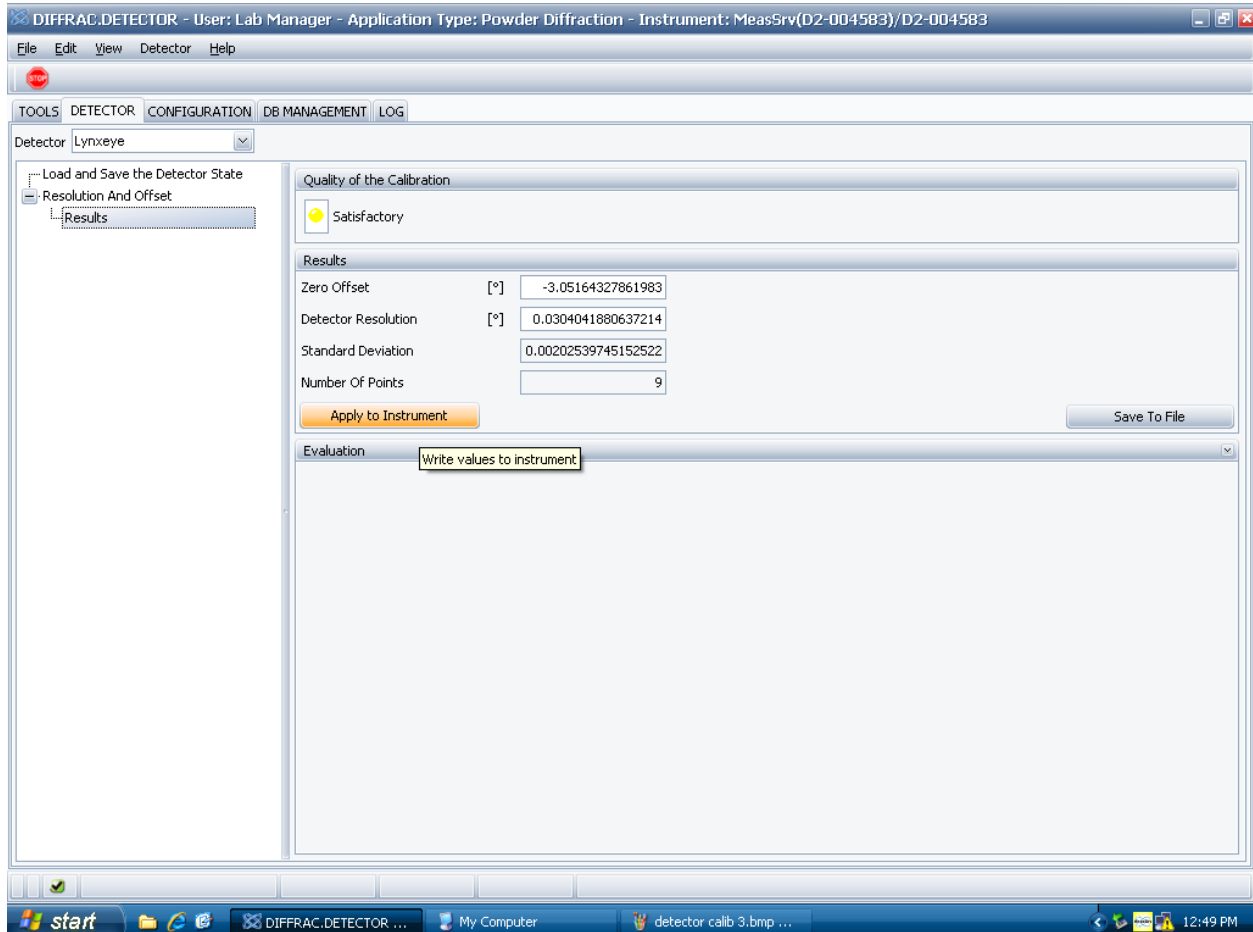🔵 start   📁 🅒 🅔   ✖ DIFFRAC.DETECTOR ...   💻 My Computer   12:43 PM

Click on the Measure button.
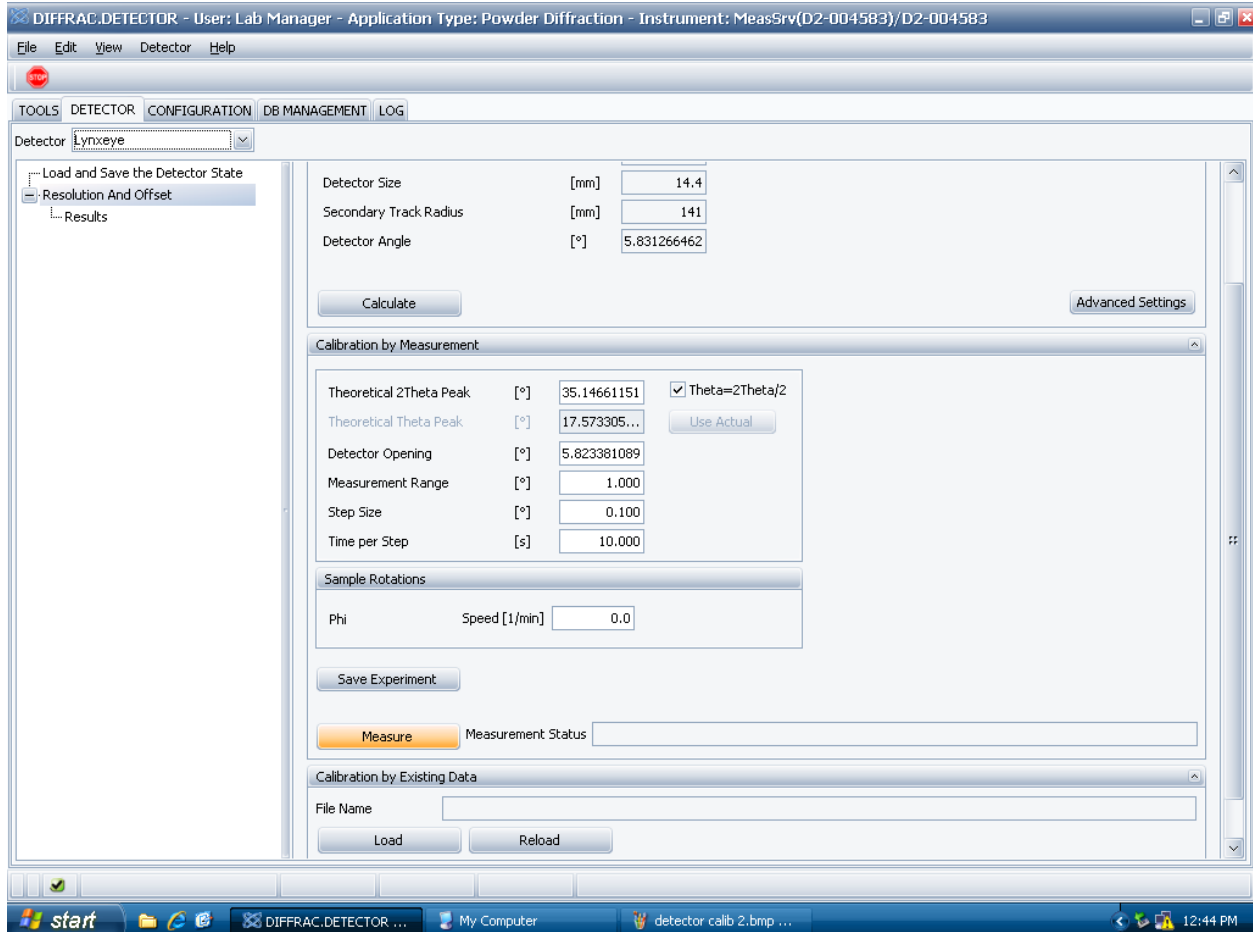
The calibration measurement will take a couple of minutes.
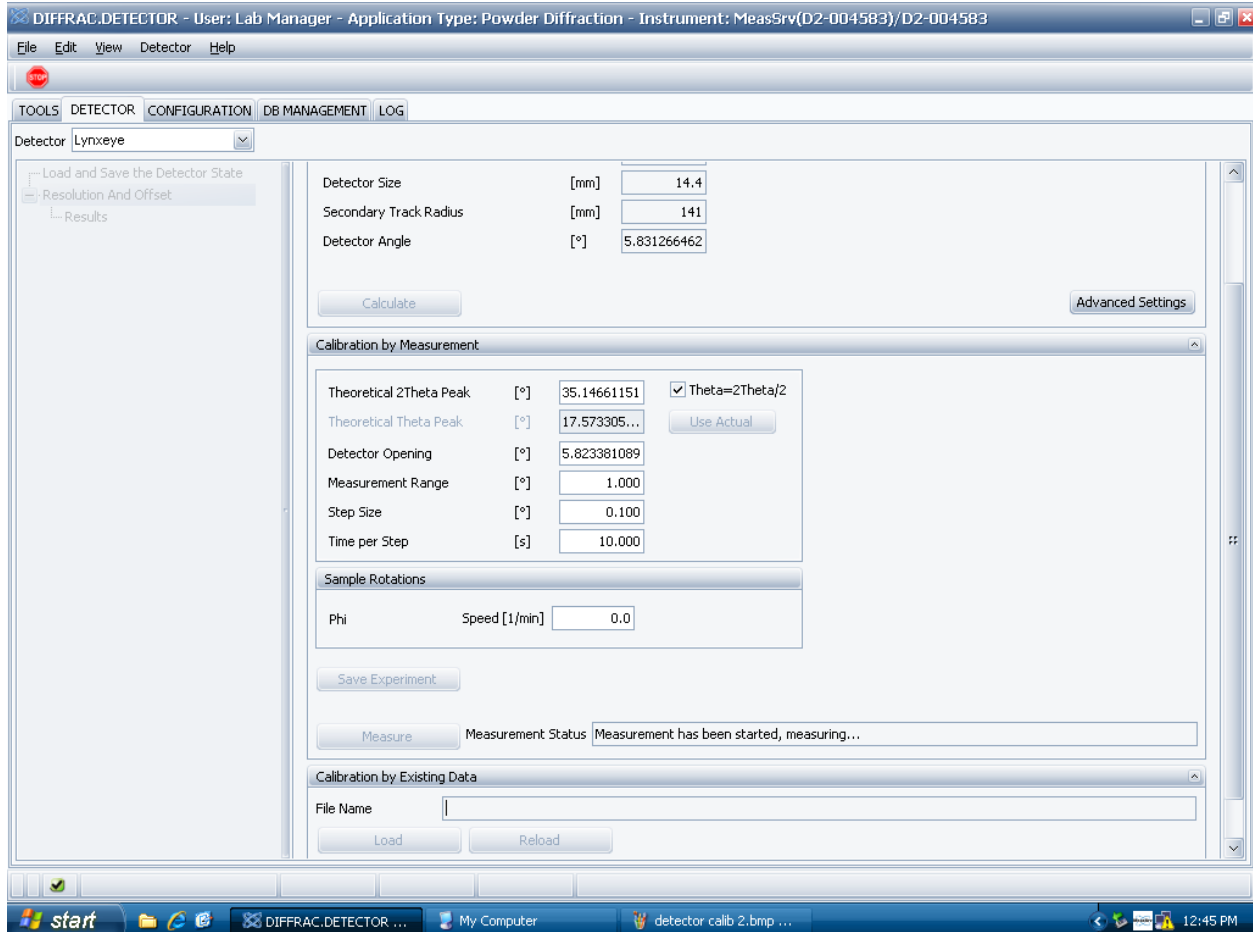
After the calibration measurement is complete you will get a satisfactory notice with a Green or yellow dot next to it. Now click Apply to Instrument.

When the dialog box comes up, press Yes. You will have to then reconnect to the instrument via Measurement Server-> Instrument status.