Guide to OOILTP Software

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Introduction

I've provided this guide to help new users get understand the features of the OOI LTP software, as we understand them here at the Canadian Light Source. This guide will contain information on the different views, and options that can be modified in the software.

First View: The opening screen

The opening Screen does not contain any useful features, but merely serves to display the software's picture

Script Setup: Motor and Scan scripts 

The motor scripter is a rather unused feature of the software

The scan script setup is rather simple to follow along with. For the CLS we use primarily a 2D linear scan, or a stability scan. The 2D scan gives the ability of running multiple scans, one after the other, as opposed to the 1D linear scan which will only do one scan. The stability scan will make the LTP still, and measure a set amount of times in a certain interval, to determine the stability of the setup.

Second View: The Scanning View 

The scanning view is the control center for setting up and taking scans with the software.

In the Motor Position box you will find a number of buttons that control the motor. The motor on and off are both self explanatory. The 'go' button sends the command to the motor to go to the position indicated, on the selected axis. This position can be set by double-clicking on the axis desired, and then setting the seek position. The halt button halts the movement of the motor. The 'Zero Axis' button will set the current position of the motor to zero.

The motor status box indicates the current status of the motor, if it is not initialized you will not be able to do a scan. This can possible be fixed by restarting the software, or loading a different motor dll.

In the motor operations box you can edit, load and save scanning scripts as well as find the limits of the LTP with the 'Find Limits' button.

From the detector information box you can set the area for the sample and the reference, both graphically, and manually by clicking the arrows. To set the area manual click the pixel on the detector view where you want the box to start, then click set.

Third View: The Analysis View 

The analysis view is where all the manipulation of data using different fits and methods takes place. After a scan has been taken, all you will need to do is select 'Convert Raw Data'. Otherwise you will need to select the raw data from a saved file.

The operations tree contains a list of all the scans, and the operations performed on the data.

In the special operations box there is the option to create an average of all the scans. This option can be particularly useful.

Fourth View: The Data manipulation view 

This view allows the manipulation of the data manually. From here it is possible to modify the number of counts per pixel manually, as well as a few other simple operations.

Galil Motor Setup

Found by clicking the 'Scanning' menu item, then 'Motor Setup'. This dialogue allows for the default velocity to be set, as well as commands to be issued to the Galil motor controller.

Scanner Setup

Found by clicking the 'Scanning' menu item, then 'Scanner Setup'. This dialogue allows for some simple parameters to be set.

Analysis Setup 

The analysis setup is an important tool to use for correctly analyzing the data collected. There are three fitting methods, the recommended one is Peak valley. The centroid method works fine, but the Peak Valley Adv. Method is unknown, and not recommended for use.

The Pixel Phase Coefficient box is another important setting. The software needs to be configured for the CCD being used. The default should now be the coefficient for the CLS LTP.

If you have any questions, please contact me by e-mail. Hopefully this document will be of some help.

- David Pastl