

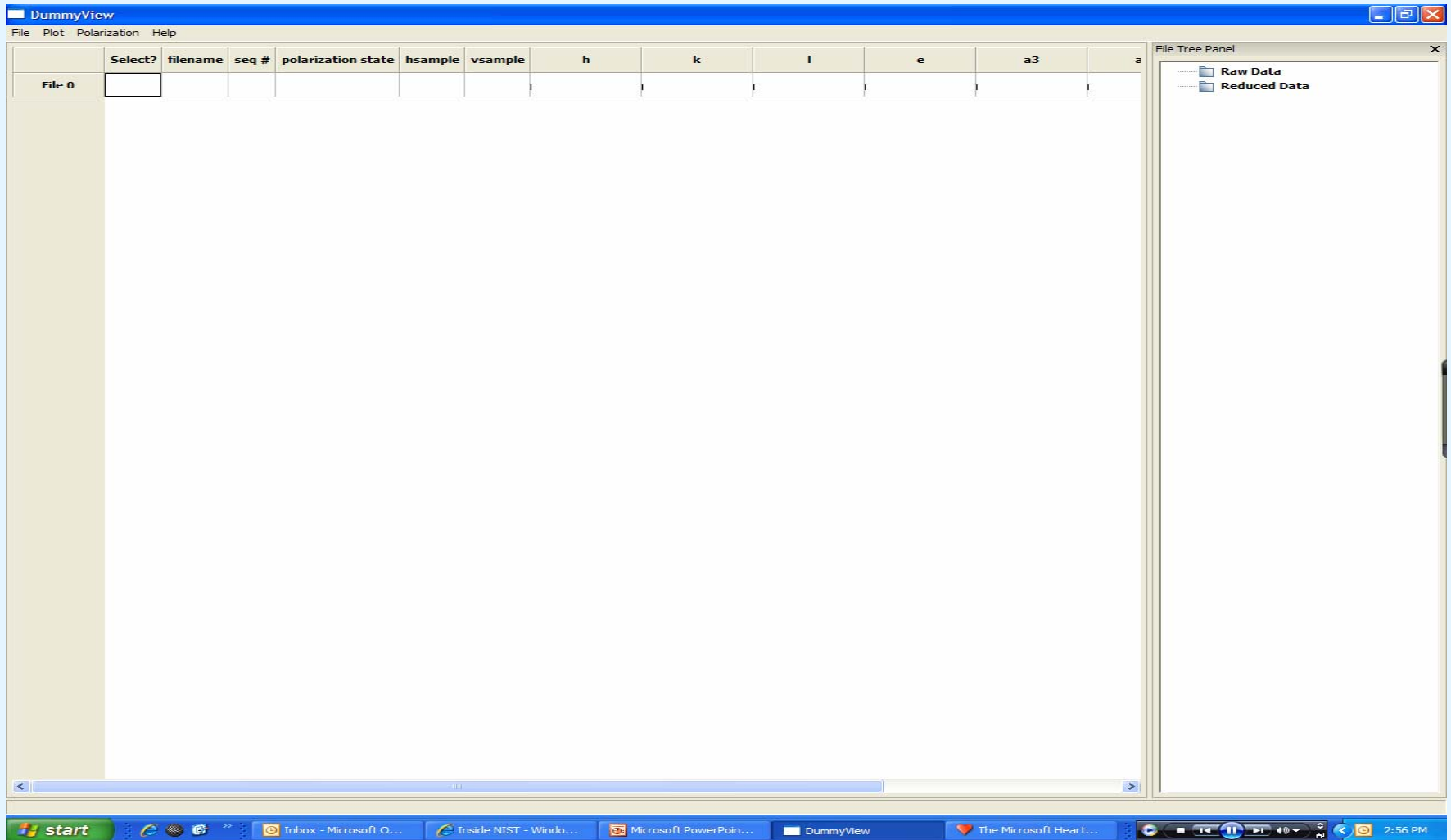
# User Manual

Triple Axis Reduction Software  
with Polarized He-3 Correction

# Acquire Software

- Go to [www.ncnr.nist.gov](http://www.ncnr.nist.gov)
- Go to Triple Axis website
- Download latest version of **PolAppSetup.exe** to c:/ drive
- Executable should install on c:/ drive into **Polcorrecter** folder
- Double click **PolApp.exe** to run software
- Panel will appear

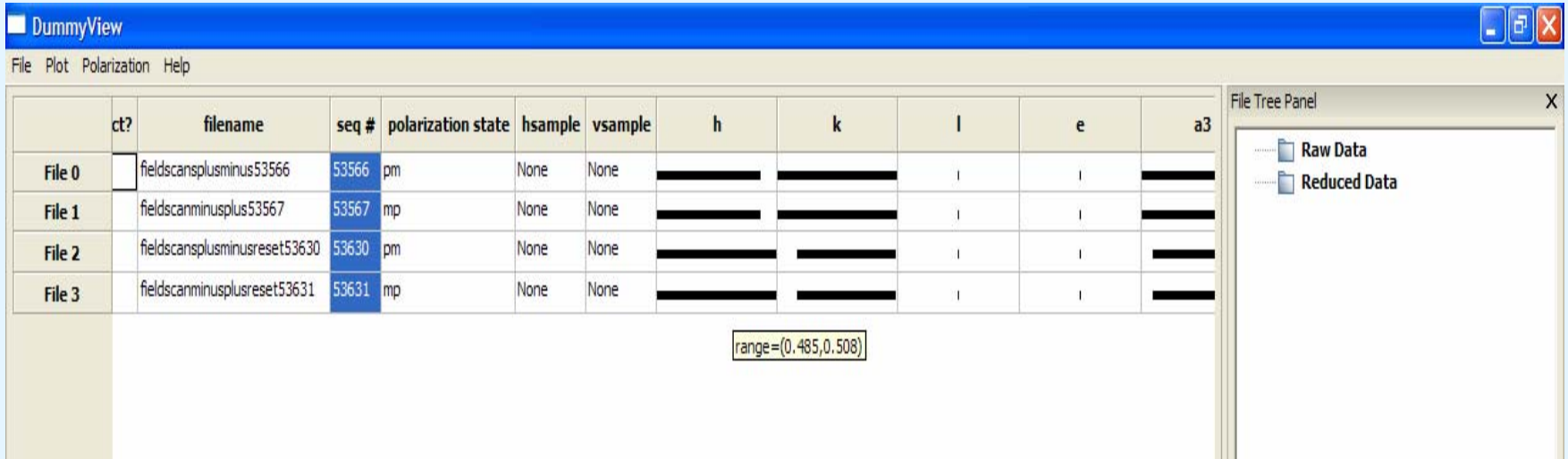
# Software Panel



# Load Data

- Choose **Polarization** menu located at top left
- Choose **Load Data** and select data to be reduced
- Files can be sorted by double clicking on a column header
- Sample Data files are available for instruction

# Data Loaded



The screenshot shows a software window titled "DummyView" with a menu bar (File, Plot, Polarization, Help). The main area contains a table with columns: ct?, filename, seq #, polarization state, hsample, vsample, h, k, l, e, and a3. The table lists four files. The 'seq #' column for File 3 is highlighted, and a tooltip shows the range "range=(0.485,0.508)". To the right is a "File Tree Panel" with "Raw Data" and "Reduced Data" folders.

	ct?	filename	seq #	polarization state	hsample	vsample	h	k	l	e	a3
File 0		fieldscansplusminus53566	53566	pm	None	None	██████████	██████████			██████████
File 1		fieldscanminusplus53567	53567	mp	None	None	██████████	██████████			██████████
File 2		fieldscansplusminusreset53630	53630	pm	None	None	██████████	██████████			██████████
File 3		fieldscanminusplusreset53631	53631	mp	None	None	██████████	██████████			██████████

range=(0.485,0.508)

File Tree Panel

- Raw Data
- Reduced Data

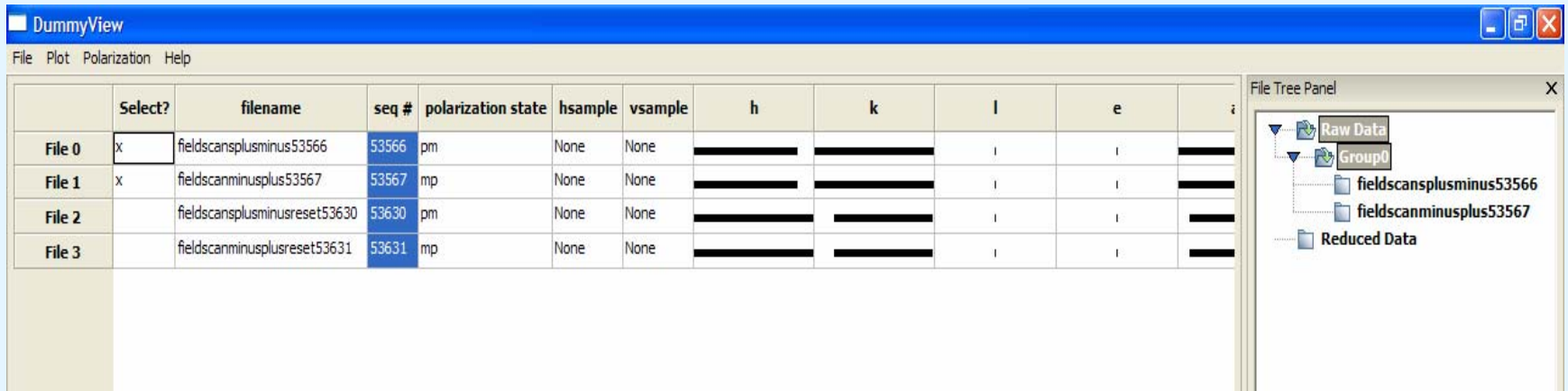
- Placing the cursor over a column value shows the parameter range over which the data was taken
- Ex. Panel above shows the range in 'h' for file 3 when the cursor is placed over the black bar

# Column Labels

<b>File #</b>	Name and number given to loaded file
<b>Select</b>	Shows which files are selected for reduction
<b>Filename</b>	Name of file loaded
<b>Polarization state</b>	m = minus, p = plus (ex. mp means minus (flipper off), plus (flipper on) scattering)
<b>hsample</b>	Horizontal sample applied field
<b>Vsample</b>	Vertical sample applied field
<b>h, k, l</b>	Orientation of crystal plane relative to detector
<b>e</b>	Energy transfer (note: no values in the column represents elastic scattering)
<b>a3</b>	
<b>a4</b>	
<b>Temp</b>	Sample temperature of measurement
<b>Magfield</b>	Applied magnetic field during measurement

More parameters can be seen at one time by dragging the bar between the data and file tree panels

# Select Data for Reduction



The screenshot shows the 'DummyView' application window. The main area contains a table with columns: Select?, filename, seq #, polarization state, hsample, vsample, h, k, l, e, and i. The 'seq #' column has values 53566, 53567, 53630, and 53631. The 'polarization state' column has values pm, mp, pm, and mp. The 'h' and 'k' columns contain horizontal bars. The 'l' and 'e' columns contain vertical bars. The 'i' column contains horizontal bars. The 'Select?' column has 'x' for File 0 and File 1, and empty boxes for File 2 and File 3. The 'File Tree Panel' on the right shows a hierarchy: Raw Data (expanded) -> Group0 -> fieldscanplusminus53566, fieldscanminusplus53567, and Reduced Data.

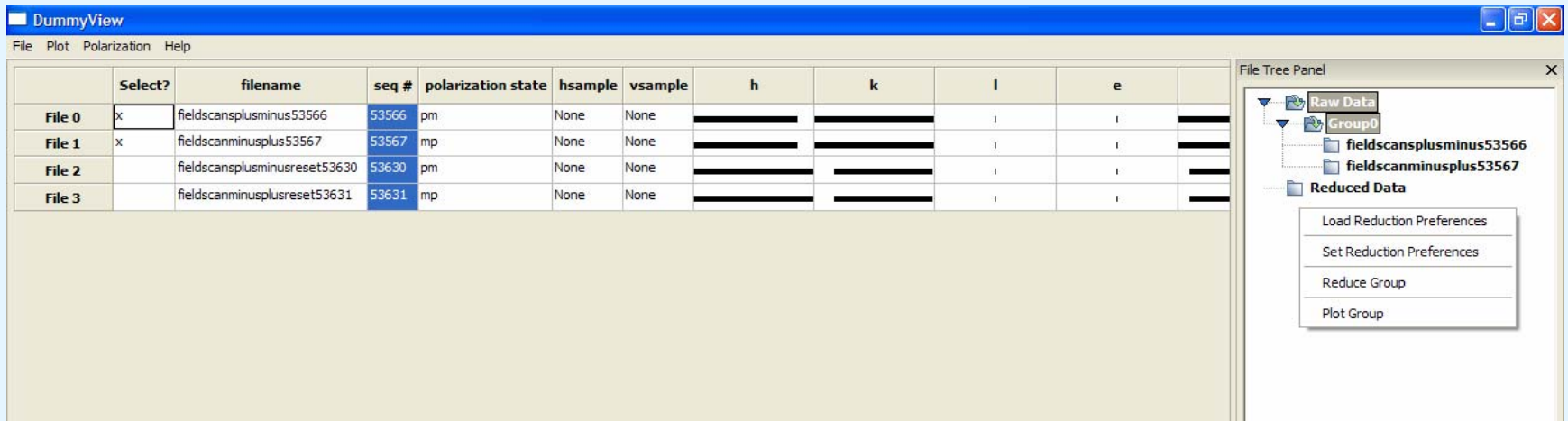
	Select?	filename	seq #	polarization state	hsample	vsample	h	k	l	e	i
File 0	x	fieldscanplusminus53566	53566	pm	None	None	████████	████████			████████
File 1	x	fieldscanminusplus53567	53567	mp	None	None	████████	████████			████████
File 2		fieldscanplusminusreset53630	53630	pm	None	None	████████	████████			████████
File 3		fieldscanminusplusreset53631	53631	mp	None	None	████████	████████			████████

File Tree Panel

- Raw Data
  - Group0
    - fieldscanplusminus53566
    - fieldscanminusplus53567
  - Reduced Data

- Click the box under **Select** next to the data you want to reduce
- Right click anywhere in that panel and select '**Send group for reduction**'
- Data will appear under the **Raw Data** tab in the **File Tree Panel** to the right

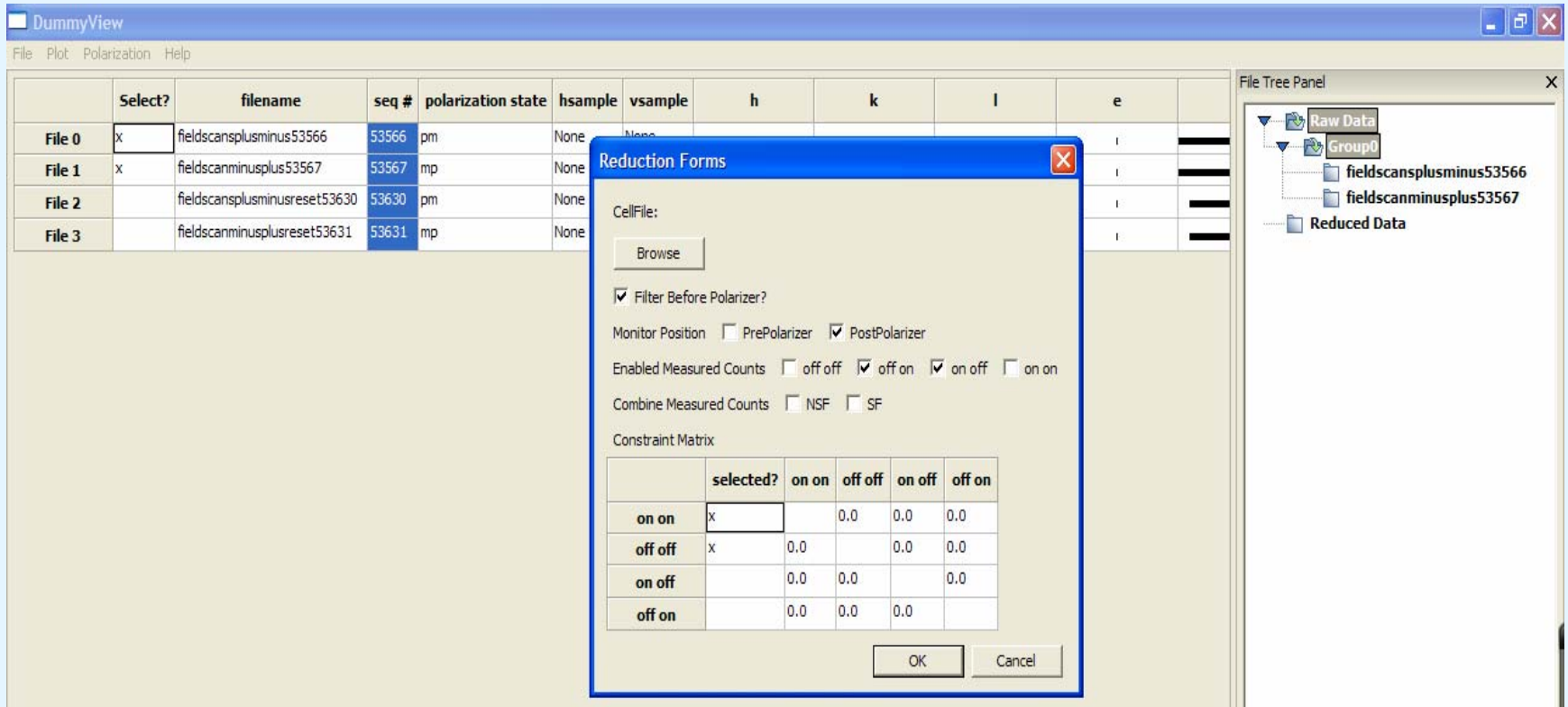
# Data Reduction → Options



- Right click in **File Tree Panel** to see reduction options
- Choose **Load Reduction Preferences** to use previously saved settings
- Choose **Set Reduction Preferences** to set reduction parameters



# Data Reduction → Set Preferences

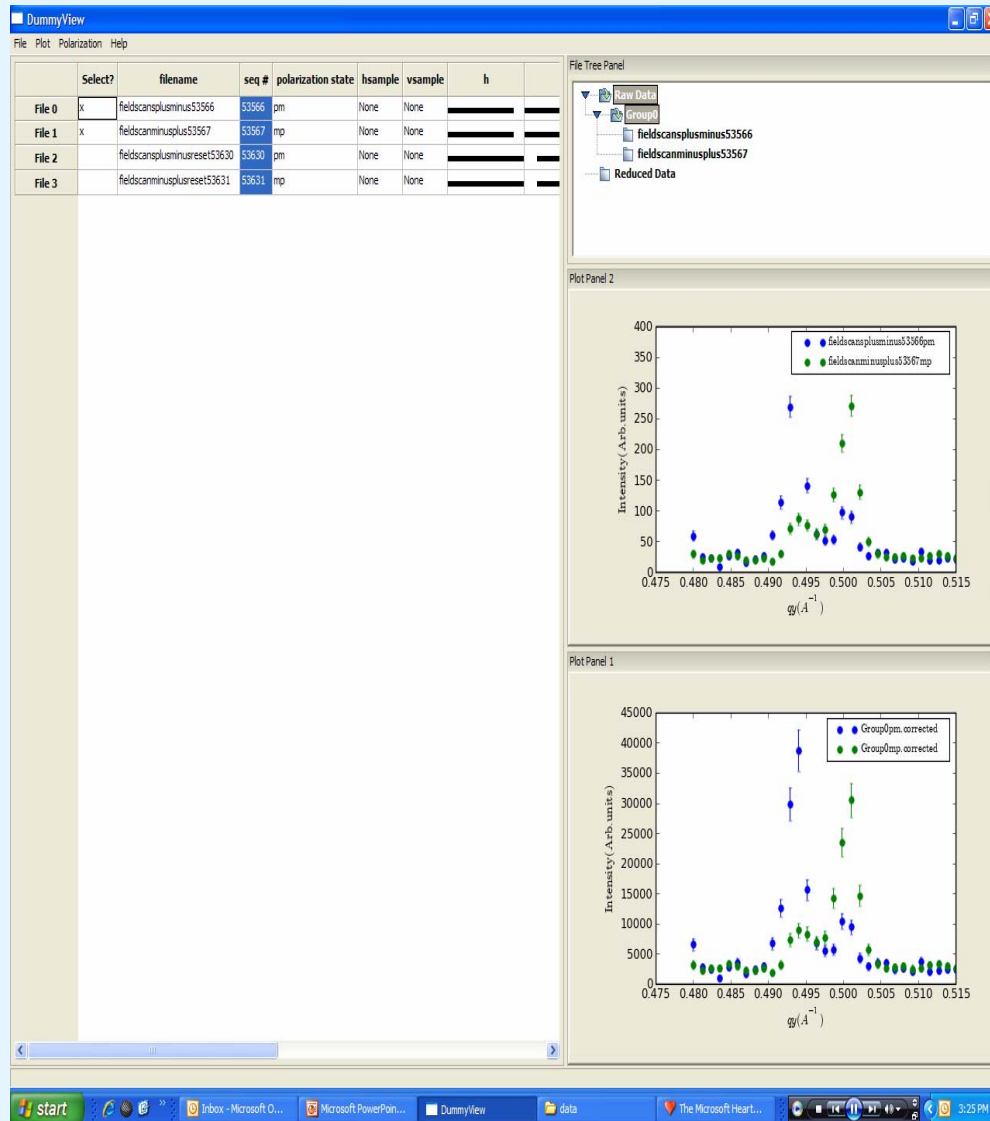


- In Reduction Forms panel
  - Use Browse tab to load He-3 polarization correction information for cells (ex. cells.txt)
  - Select parameters that apply to experiment

# Data Reduction → Reduction Forms

Filter Before Polarizer	Check box if a filter before the polarizer
Monitor Position	Check appropriate box
Enable Measured Counts	Flipper combination
Combine Measured Counts	Will combine data for both SF cross sections or NSF cross sections
Constraint Matrix	User inputs constraints for each cross section

# Reduce Group



- After setting reduction parameters → right click and select **Reduce Group**
- Plots will appear of raw data and corrected data
- Individual panels can be dragged outside the main panel for enlargement

# Save Info

- Right click on individual plot panels to save a text file of the plot and/or plot image
- Note that after using the “reduce group” option a “.out” file will be made with the reduced data in an “ICE” format. The corrected data will be in the `detector_corrected` and `detector_errs_corrected` columns