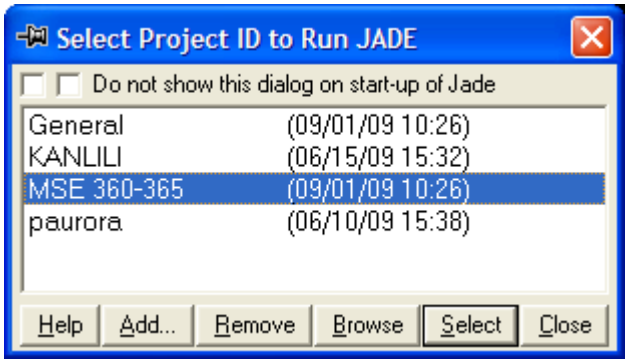
Using JADE 9

MSE 360 - Fall 2009

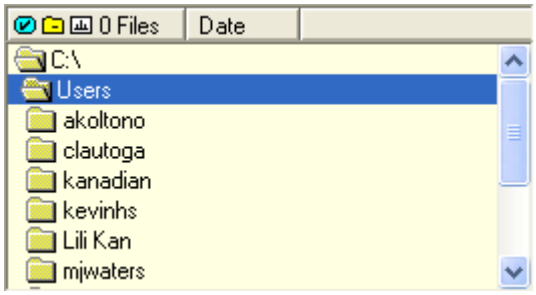
Revised: 9/2/2009

1) Open JADE 9 from the desktop

2) The main JADE window will open along with the "Select Project ID to Run JADE" window. Highlight the "MSE 360-365" profile and click "select."

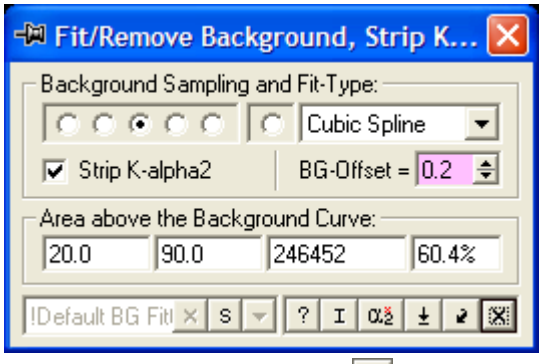


3) On the upper left panel click the small folder icon to show the file tree. Find the folder containing your data from the XRD.



Once you have found your folder, you need to press the small folder icon again to close the folder tree, exposing the files present in your folder. Double click a file to open it. You are now ready to analyze your data.

4) Remove background fluorescence:
Analyze ➔ Fit Background (F4)
This window presents a number of options for fitting the background noise. Play with the values until you are comfortable with the fit.

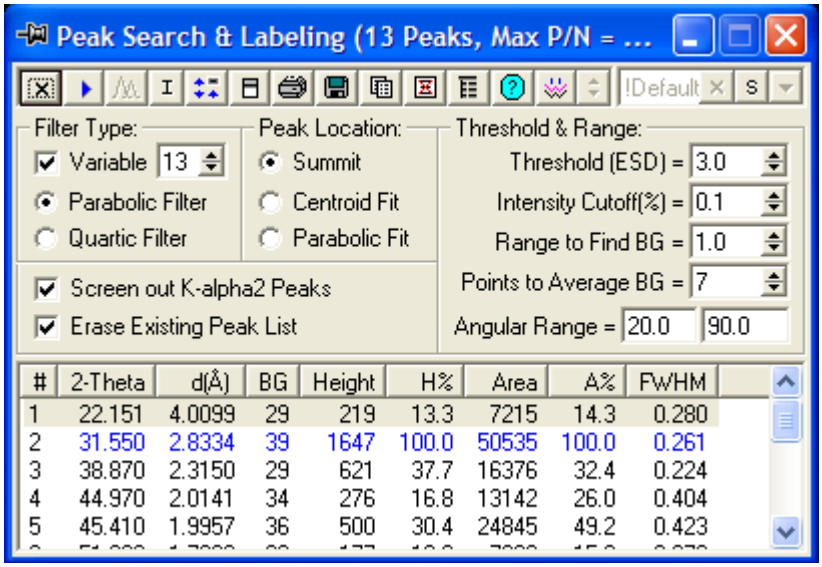


Click the down arrow button to remove the background.

5) Find the peaks:

Analyze ➔ Find Peaks (F2)

Again this window presents a large number of options for peak finding that we are generally not concerned with for our samples. Click the "Find peaks in primary pattern" button  .



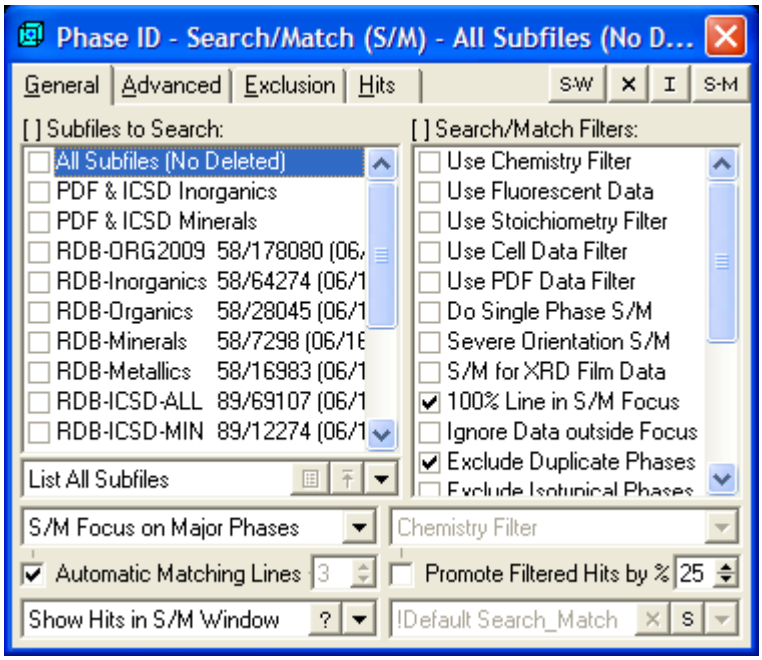
Look over the results. If there are peaks missing or extra peaks you don't want, use the "Peak editing cursor" tool  .

6) Compare the peaks against the materials library:

Identify ➔ Search/Match Setup (F7)

On the left hand side of the Search and Match window highlight or check the line that says "All subfiles." You should not need to change any of the other options on this window. Click the Search and Match 

button on the upper right.



7) Look over the materials that are suggested and decide which fit is best. Any suggestion with a FOM (figure of merit) < 10 is a likely possibility; however you will need to decide for yourself which fit is most appropriate. Check off the box next to the material(s) you have chosen and close the search window.

8) You may save the data corresponding to the materials you have chosen by selecting that material from the drop down box and clicking the view card button  . You are then given the choice to save the data as a text file  .

9) You may also want to save your diffraction data as a text file for entering into a spreadsheet later.
File ➔ Save ➔ Primary Pattern as *.txt

10) You may also save the diffraction data as an image file.
File ➔ Print Setup ➔ click the save button