

## MULTISPEC™ User's Manual

Start Multispec program by double clicking on the  
  
'Multispec" icon, or from "Program Files"



A pop-up menu appears

It has 5 buttons for 5 different file types

The last button is to quit the program

"UNISPEC-NEW" processes data that has been collected using UniWin software version 1.5, and versions 2.5 and later of DOS Unispec software.

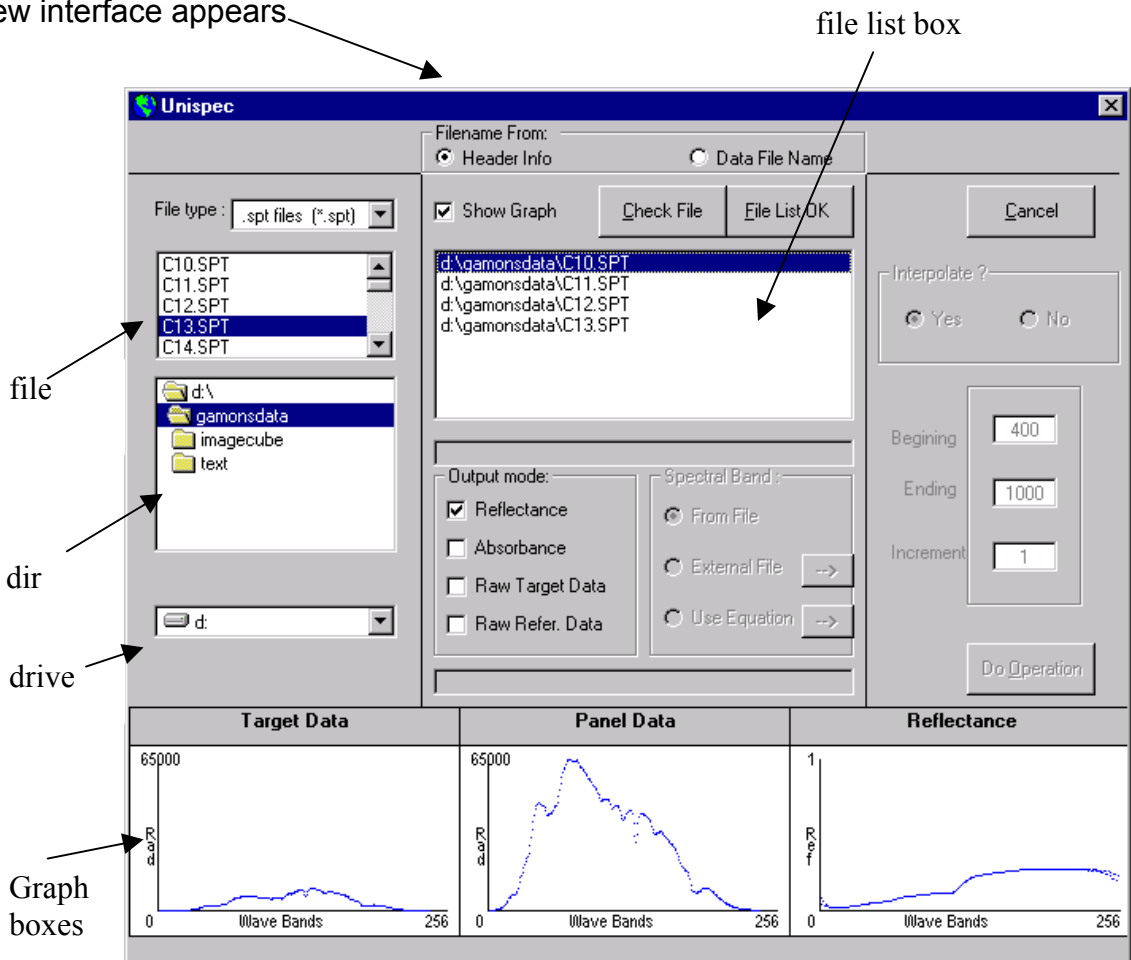
"UNISPEC-OLD" processes data that has been collected using version of Unispec software, versions 2.5 and earlier.

"UNISPEC-COMP" processes data that has been collected using the compressed mode of Unispec software

"GER1500" processes data that has been collected using the GER-1500 spectrometer

"GER2600" processes data that has been collected using the GER-2600 spectrometer

Press "UNISPEC-OLD" button  
A new interface appears



Change the drive using the drive box

Change directory to where your data is

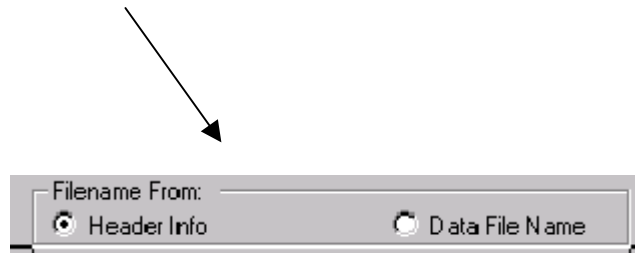
A list of files (with suffix .SPT will appear)

Click once on a filename. File will be selected and the filepath and filename will be transferred to the empty file list box in the right of filename box

Press the 'down-arrow' key and files will be selected automatically

To deselect a file, click twice on that filename in the select-box

When data is collected in auto mode, filenames do not get saved in the header. In processing those data files, choose "Data File Name" in the "Filename From" radio button choice. If user provided filename during data collection, use the "Header Info" button.



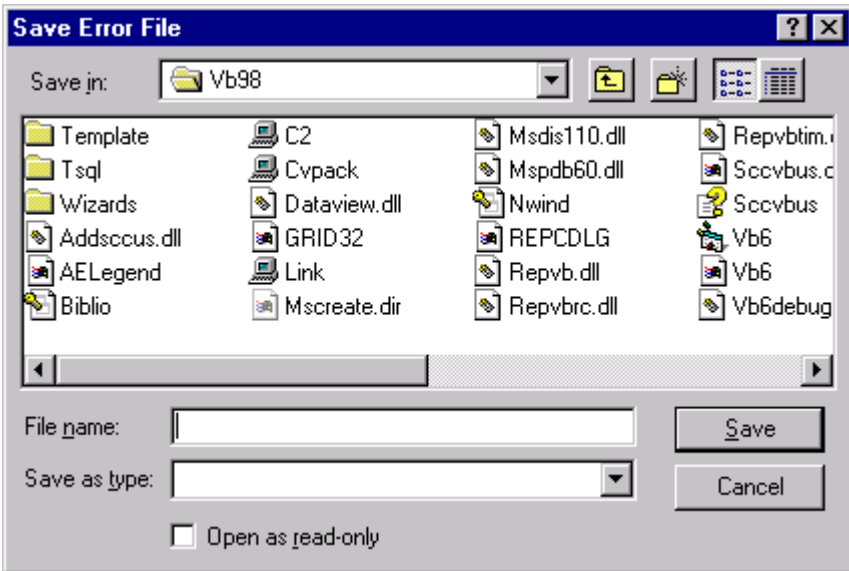
When data is collected automatically, filenames should be chosen using "Data File Name"

Select the "Show Graph" box if you want to view the data graphically. Then click on any file name in the file list box to view graph of that file.

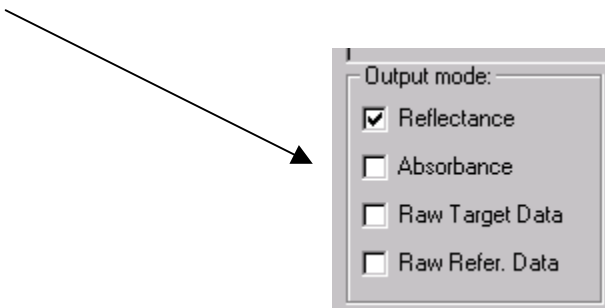


Once files are selected click on "Check File" button.

A new window will appear. Save the error log file. If there is any error in the data, this log file will list those errors. Otherwise this file will be empty and a message will appear saying data is ok.



Select the output mode by checking the boxes

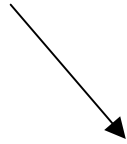


Then click on "File List OK" button



Select the source of wave band by clicking on an appropriate radio button under the "Spectral Band" box. If external files are used, they must be plain text files

with only one column of bandwidth information. If equation is used, the values of three coefficients must be given to derive the bandwidths from a second order polynomial that uses the coefficients. The values of these coefficients are available from the Unispec Company (or contact Dr. Gamon).



Spectral Band :

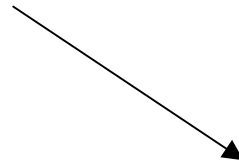
From File

External File -->

Use Equation -->

If "External File" or "Use Equation" buttons are used, a new window will pop up and allow the user to type in the coefficients or select a filename.

Select the mode of output data (either interpolated or at original data acquisition wavelengths). If interpolation is needed, chose the range of wavelengths and the wavelength increment for interpolation



Interpolate ?

Yes  No

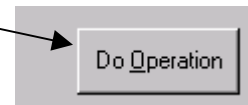
Beginning

Ending

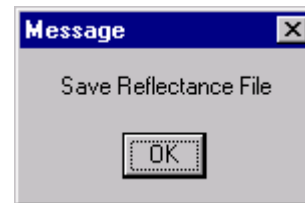
Increment

Interpolation at 1 nm interval is particularly useful for calculation of narrow band indices.

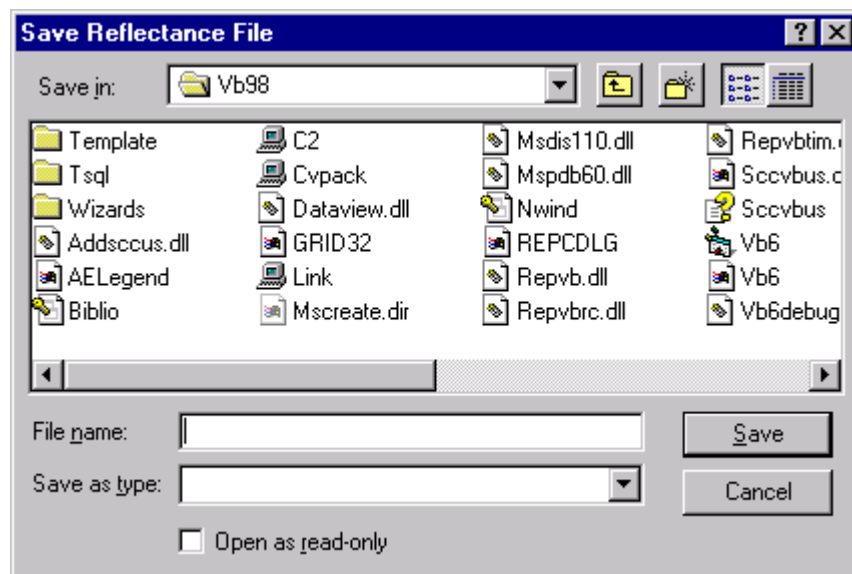
Click on the "Do Operation" button to begin processing data.



A new popup menu will come up



Press OK and it will bring a Save menu



Save the reflectance file. If you selected "Absorbance" or "Raw Target Data" etc., separate Save menus will appear and you have to save files separately.

Processed data are saved in a text file that has columns separated by a fixed distance between them. The figure below illustrates how the processed data file look like.

Reflectance

Wavelength (nm)	B100001.SPT	B100002.SPT	B100003.SPT
--	04/04/00 11:56:46	04/04/00 11:56:58	04/04/00 11:57:08
400	0.011377	0.016737	0.015003
401	0.011978	0.016719	0.015049
402	0.012579	0.0167	0.015096
403	0.01318	0.016681	0.015142
404	0.012851	0.017749	0.015171
405	0.01244	0.018913	0.015198
406	0.012029	0.020076	0.015226
407	0.011784	0.020072	0.015036
408	0.011645	0.019321	0.014708
409	0.011506	0.018571	0.01438
410	0.0116	0.018226	0.014268
411	0.012213	0.018785	0.014638
412	0.012827	0.019343	0.015009
413	0.01344	0.019902	0.015379
414	0.013819	0.019587	0.014998
415	0.014199	0.019273	0.014616
416	0.014578	0.018959	0.014235
417	0.014537	0.018883	0.014145
418	0.014306	0.018914	0.014185
419	0.014076	0.018946	0.014225

Please note that in order to bring these text files to a spreadsheet program (such as Microsoft Excel) choose the 'fixed width' format in the Excel program, not the 'delimited' option.