Running the Updated HIREXSR Analysis Code (9/16/10)

The following should be added to your .bashrc file

LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/home/labombard/idl_lib/fortran

To compile the code run @hirexsr_ini.bat and compile *widgets* as necessary (use .compile *widgetname*).

1) run **HIREXSR_UPDATE_TREE** which will create the HIREXSR node in spectroscopy and the ANALYSIS, CALIB and INFO structures.
2) fill in INFO data from .info files using **HIREXSR_LOAD_INFO2TREE** or copy from another shot uing **HIREXSR_COPY_INFO**

   MOD #1 _____ MOD #2 _____ MOD #3 _____ MOD #4 _____
3) write rest wavelength table to new shot using **HIREXSR_WRITE_WAVELENGTHS**
4) a) <u>PERFORM CALIBRATIONS USING LOCKED MODE</u>
   1. compile and run the calibration widget *w_hirexsr_calib* for each module.

      MOD #1 _____ MOD #2 _____ MOD #3 _____ MOD #4 _____
   2. verify or modify the crystal detector alignment using the alignment widget *w_hirexsr_det_align*

      MOD #1 _____ MOD #2 _____ MOD #3 _____ MOD #4 _____
   3. write white field calibration **HIREXSR_WRITE_WHITE**

      MOD #1 _____ MOD #2 _____ MOD #3 _____ MOD #4 _____
   4. write filter transmission **HIREXSR_WRITE_TRANS**

   b) <u>COPY CALIBRATION DATA</u> from another shot using **HIREXSR_COPY_CALIB**
5) write module ordering using **HIREXSR_WRITE_MORDER**
6) write binning using **HIREXSR_WRITE_BINNING** or copy from another shot using **HIREXSR_COPY_BINNING**

   HE-LIKE _____ H-LIKE _____
7) run **HIREXSR_CALC_DATA** to form averages spectra and moments, write them to the tree and use *w_hirexsr_he_moments* or *w_hirexsr_h_moments* to examine the spectra and moments

   W(0) _____ X(1) _____ Z(2)_____ LYA1(3)_____
8) run **HIREXSR_INVERT_DATA** to calculate profiles, write them to the tree and use *w_hirexsr_profiles* to examine the inversions.

   W(0) _____ X(1) _____ Z(2)_____ LYA1(3)_____