Hi -

Very basic notes. Please ask. We have several testcases with different options – ask.

What you want documentation!?  :)  I wish. This is on my todo list.  Here is quick starter for the test cases

b3.991.zip - this is the sfit4 fortran code unzip and make - we us gfortran on linux - if you have this it should make right away - note raytracing is included (no more fastcode - at least called indepentently)

makes: sfit4\*, hbin\*, convert\_binput\_394\*

3.991.linelist - cfgl's are gone. this is a directory tree with all the line list files now before a run you run hbin\* to build the binary hitran file

pltfits.pro idl to make a plot of the fits

x.\* - are testcases

to run sfit4 you need:

sfit4.ctl - our more or less familiar binput - looks different and getting  more different all the time but does the same things

station.layers - output with the waccm model output - defines the layering for the raytracing

nnnnn.mmmmm-xxxxx.yyyyy.hbin – binary hitran with lines specific to this run

t15asc.4 - our ascii spectrum but with more info in the header

reference.prf - reference profiles (basically refmod but goes to 120km) zpt are in hydrostatic equlibrium as they always were, otherwise is mostly waccm output for a site. Now to 99 molecules. Lowest level is approx. your station height.

isotope.input - if needed - note its different than before (eg sfit2 v3.94) and deceptively so...

prepspec.input - for a new spectrum (t15asc.4) creation program

temp.bnr.00 - binary spectrum (maybe its there) not read directly by sfit4 but read by prepspec

and

hbin.input - points to the linelist directory/files

step 1. - as always save the x.\*

2. should be able to remove all files from a testcase except those above

3. edit hbin.input to point to the linelist directory (see entry in file)

4. run hbin in dir with hbin.input - creates \*.hbin & \*.hasc files

1. hbin is read by sfit4
2. hasc is identical data but human readable - for sanity checks - very handy! Will be discontinued someday

5. edit sfit4.ctl

1. especially solar line data file (a copy is in linelist directory)
2. and it should point to hbin file in local dir, name should be same

6. run sfit4

7. in idl plot up output with pltfits.pro