

OPTION 12. LINEARIZE STELLAR FILE

For the purposes of adding and subtracting spectra, or for making spectrophotometric measures (E.W., rotational velocities) with VLINE, a linearized wavelength scale independent of the earth's orbital motion is necessary. If you are processing a lot of data that you wish to combine later, it is important that the linearized data are as homogeneous as possible (same starting and ending wavelengths and wavelength increment).

PROMPT: Enter starting wavelength: -ve number to alter rest velocity.

REPLY: With starting wavelength or if the arc spectrum was measured with no V(sun) correction it can be inserted here by entering a -ve number. In this case one will be further prompted for this value.

PROMPT: Enter ending wavelength: -ve value to previous entry.

REPLY: Enter appropriate value. If you have erred on the previous entry a -ve number here will shift the program to the previous step.

PROMPT: Enter wavelength increment: -ve value to previous entry.

REPLY: As a guide to answering this question the best wavelength increment consistent with the sampling interval is displayed. As in the previous step a -ve value will enable you to correct the previous value. However no recovery is possible if you err here on the third step. The whole process would have to be redone by going back to the OPERATIONAL OPTIONS Table (see Reduce-4). Note that a W FTS file will always be stored at the end of this Option.

OPTION 12A AUTOMATIC LINEARIZATION

This whole process can be done automatically if the entry in the OPERATIONAL OPTIONS TABLE IS 12A, not 12. Under these circumstances one will be initially prompted for the linearizing parameters but on subsequent FITS files the linearization occurs automatically.