

ELEVATION CORRECTION MODULE

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DATM is a commonly used INSIGHT module for application of elevation statics when the survey area is reasonably smooth and flat. Unfortunately, it has a "special feature" that may cause an unwary user to get wrong statics. It only works as you would expect for a first pass on the data where it expects the datum elevation (header word 51) and datum velocity (word 52) to be zero. If headers 51 and 52 are not equal to zero, as is the case on a lot of data from the LSPF or if you have already done statics on the file, the program will only shift the datum uniformly over the whole file according to the values for datum elevation and replacement velocity given in your ITA script and those in the datum headers.

It is annoying to have to write zeroes to header words 51 and 52 for each data file one wants to correct, so we have created module ELEV and sent it to the LSPF. This module performs the exactly same task as INSIGHT module DATM but is not sensitive to what is written in the trace headers 51 and 52.

Table 1: DESCRIPTION OF MODULE

module name:	ELEV	
parameters:	datm, rvel	
datm:	possibilities -	Any real number. This parameter is the actual datum to which we want to bring start time/position of all of the traces. The value represents datum in meters (or feet).
rvel:	possibilities -	Any real number. This parameter is the actual replacement velocity used to calculate elevation correction. The value represents replacement velocity in meters/s (or feet/s).
Program characteristics:	This program will calculate elevation correction for each trace, write that value in the header word 20 and then shift all the data in the traces for the appropriate value. The program will also write the datum elevation to header word 51 and replacement velocity to the trace header 52.	
