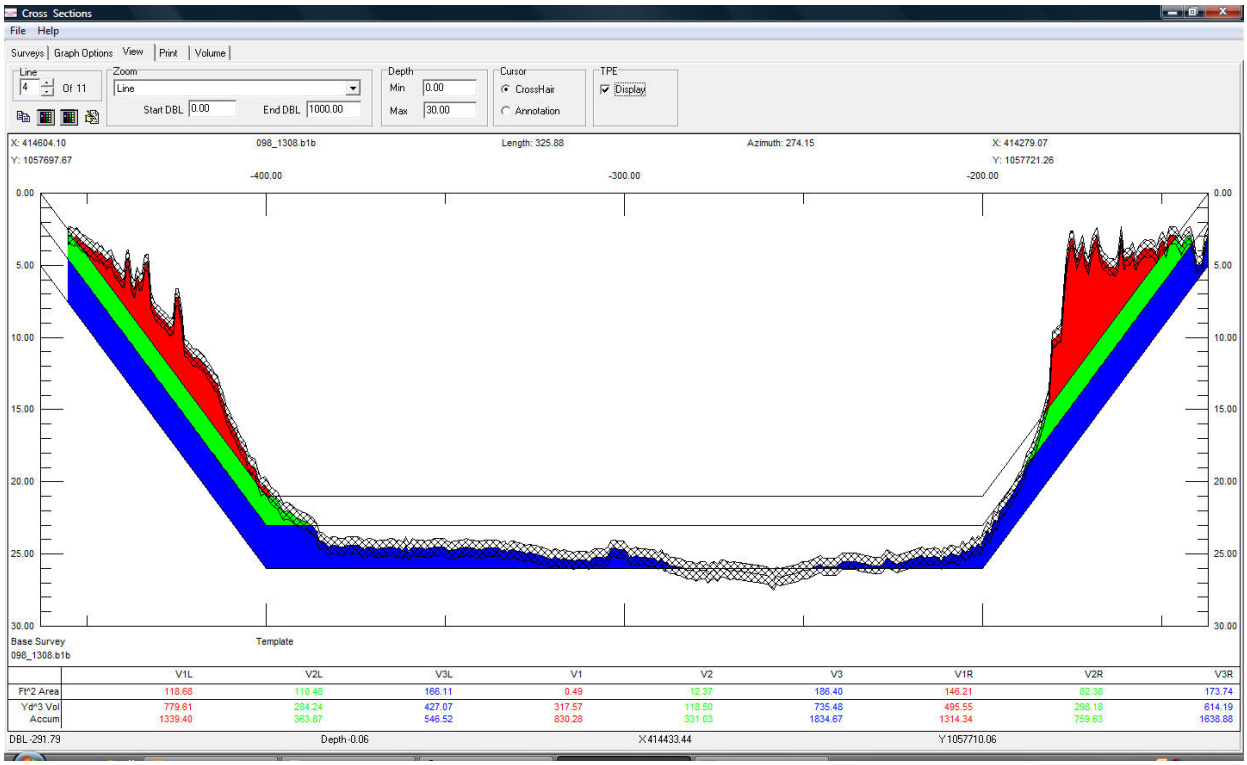
TPE Envelope in Cross Section Profiles

By Pat Sanders

Dave Maddock of HYPACK has recently modified our TPE Editor and the HYSWEEP SURVEY program in order to generate real-time calculations of Total Propagated Error (TPE). We had a couple of HYPACK user's contact us and wonder if we could apply the same calculation for single beam data. In general, the single beam case is the same as the nadir beam calculation from a multibeam system. About the only difference is the beam width is typically wider.

Dave modified an upcoming version of the SINGLE BEAM EDITOR (SBE) to calculate the TPE for each sounding and to save it in a slot in the Edited ALL2 format. (That's the format that has been in use for edited data since the HYPACK 6.2 release.) In order to give users a graphical representation of that error, Thomas Buchan modified the CROSS SECTIONS AND VOLUMES report to optionally display the TPE envelope about the depth profile.



Displaying the TPE in Cross Sections and Volumes

The TPE envelope shows up as the clear cross-hatch area about the single beam profile. You can turn it on/off by clicking the TPE – Display check box, located up in the top-center of the View window.

There is no noticeable difference in the TPE value the range of data shown above. Since you don't find much, if any, variation in TPE for minor changes in depth, we are computing just the TPE value for the high frequency depth.

These enhancements will become a standard feature in the HYPACK 2009 release.