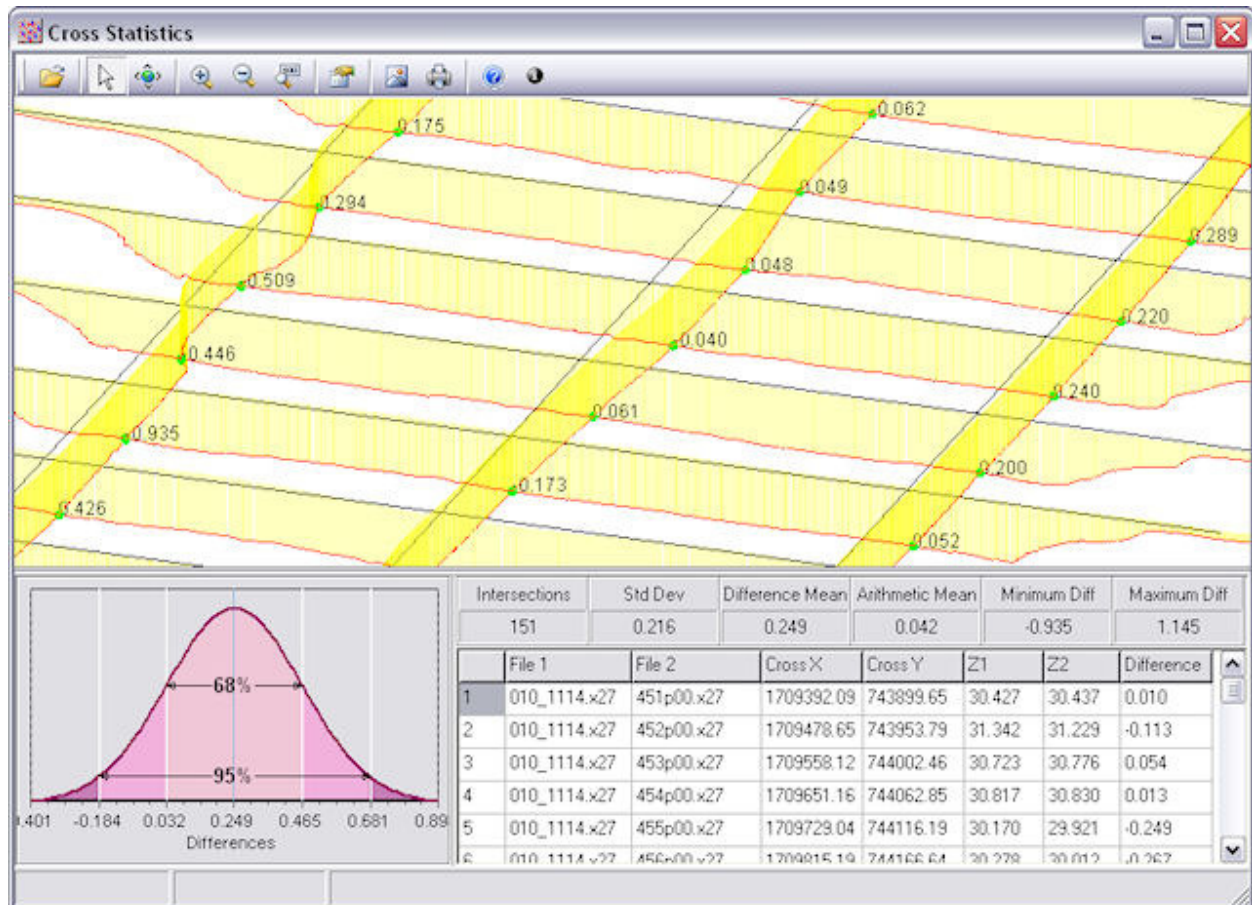


Cross Statistics

By John Marinuzzi

In our efforts to upgrade our programs to 3-Dimension graphics and more user-friendly interfaces the latest program to be changed was the Cross Statistics program. The Cross Statistics program enables you to compute and display the sounding difference between intersecting lines of single beam data. The new version offers quicker access to the difference data, a visually enhanced chart, 3-D views of the data, and an improved, simplified printed report.



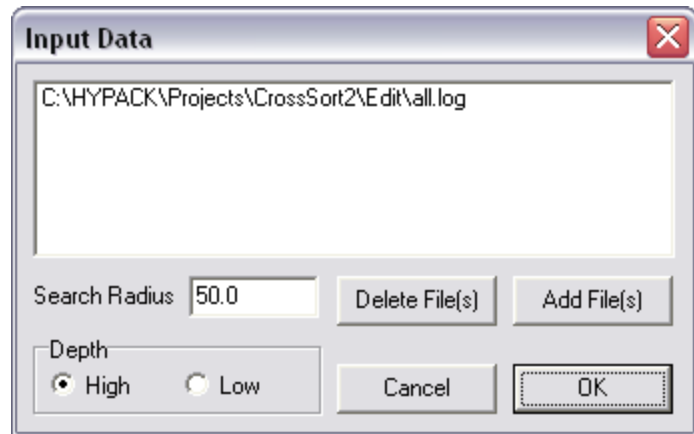
The Menu



Input Data () – The Input Data button opens up another dialog to add and/or remove Edited All files from the data set.

Click **[Add Files]** and select the files for which you are calculating the statistics. In the new version of Cross Statistics, you can use LOG files or multiple, individual All format files.

To remove files from the data set, select them in the dialog and click **[Delete Files]**.



The Input Data dialog contains a couple of options:

- Search radius sets the distance around the line intersections to check for data intersections.
- Depth indicates which echosounder depth to use, High frequency or Low frequency.

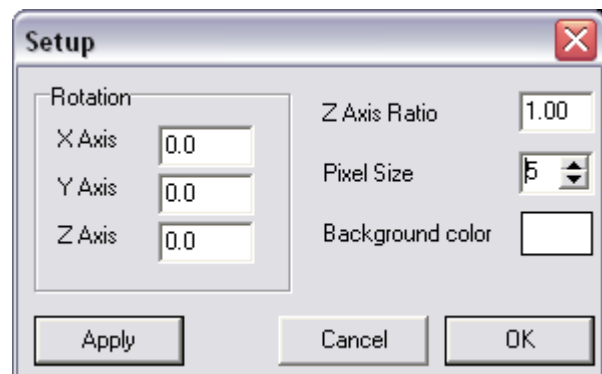
Regular Mode () – This puts the mouse mode into “Regular” mode which controls how the view screen reacts to mouse input. In Regular mode, you use the mouse wheel to zoom in and out. A left-drag rotates around the data view. A right-drag pans around the view. Note that dragging does not change the center point for the rotation. That is done with the Re-center button.

Re-center () – Re-center readjusts the center point for rotation in the data view.

Zoom (  ) – The next three buttons are for zooming, the first two for zooming in and out, and the third for zooming to the extents of the dataset. Zooming to the extents sets the view to no rotation on the x, y, and z planes.

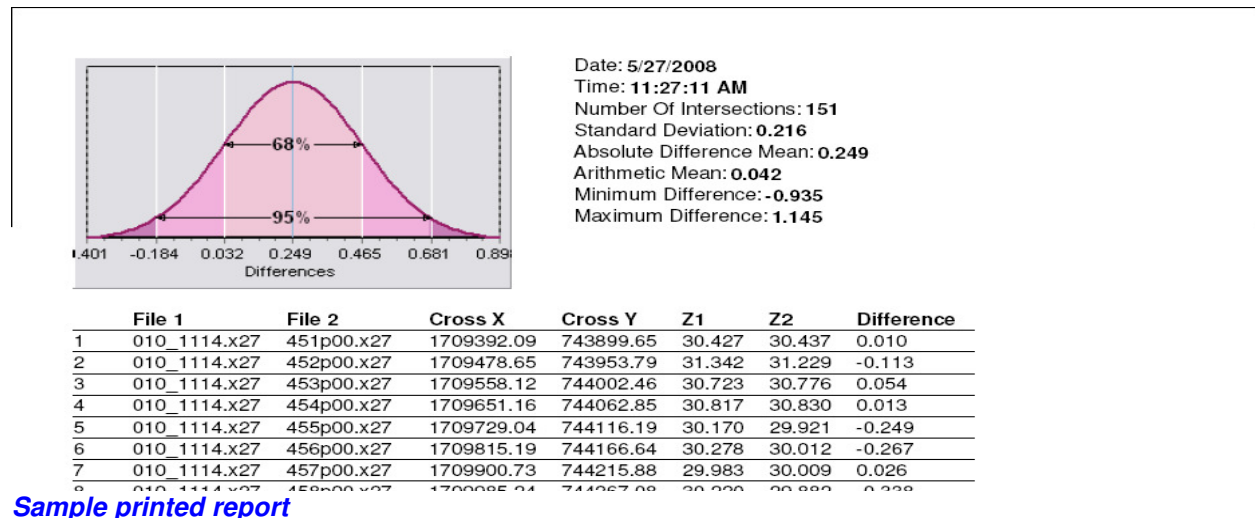
View Options () – This button brings up a dialog box that allows you to set some basic view parameters.

- *Rotation* let you manually set the rotation in the data view.
- *Z-Axis Ratio* is a multiplier for the z values in the data set. This allows the user to exaggerate the differences in the view.
- *Pixel Size* will change the size of the soundings on the intersections.
- *Background Color* will change the background color in the data view window.

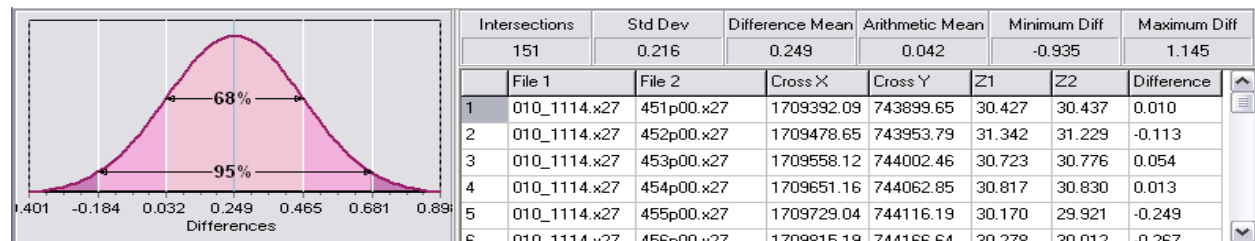


Save To Bitmap () – Will save the current data view to a Windows Bitmap (.BMP) file.

Print To Report () – Will send the chart and difference grid in a report to the printer.



The Data



Statistical Data Displayed in Cross Check Statistics

The bottom windows on the main screen are where the data can be found. Most of the information is self-explanatory.

The chart on the left is a standard deviation chart which shows the Mean absolute difference and the differences out to $\pm 1.3\sigma$.

On the right side of the window, the top has the data set difference information, and the grid below it shows all of the individual intersection differences. The individual difference grid shows the filename of the files that have an intersection, the X and Y position of the intersection, the two Z values and their difference. Selecting a difference from the grid will draw the soundings pixels for that difference with different color in the data view.

Getting the Program

This new version of the program does have a different executable name than the old version (CrossStat.exe vs. WCro32.exe), so it will have to be added as an external tool in your HYPACK Shell. If you would like to use it please contact [HYPACK Technical Support](#).