



Create Quick View of Collected Magnetometer Data

By Joe Burnett

Magnetometer data is logged to HYPACK® in the same format as echosounder data. For this reason, you can also view it in post-processing as if it were depth data.

1. **Select PROCESSING-SINGLE BEAM EDITOR** (or the “Book” icon).

FIGURE 1. Launching the SINGLE BEAM EDITOR

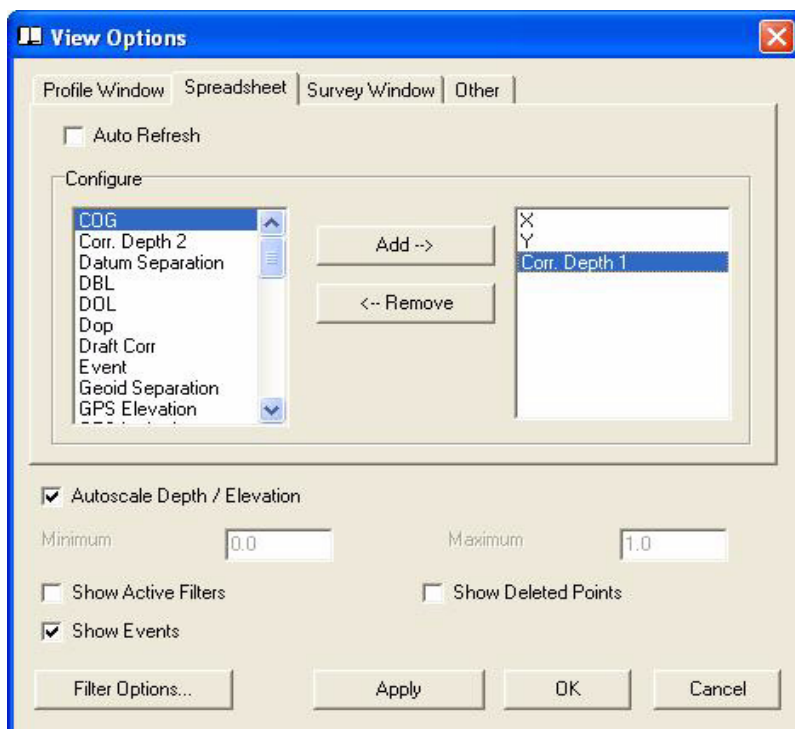


The SINGLE BEAM EDITOR will appear.

FIGURE 2. SINGLE BEAM EDITOR Shell



2. **Configure the Spreadsheet** to include the following:
 - a. Right-click in the Spreadsheet Window and choose ‘View Options’ from the pop-up menu (F9).



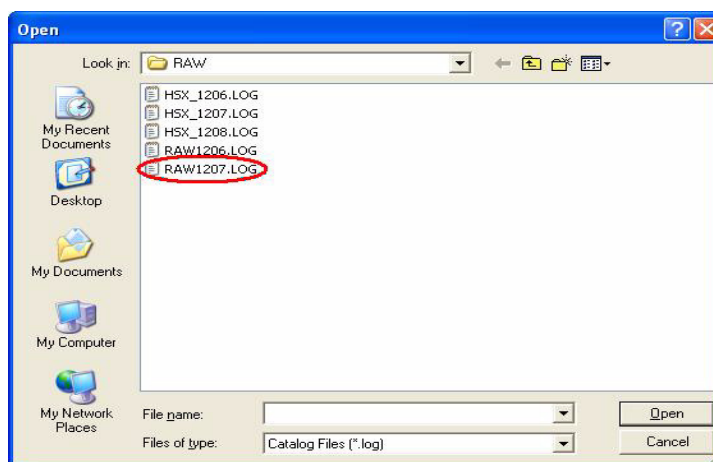
- In the Spreadsheet tab and configure the spreadsheet to include only the X, Y, and Corr. Depth 1 and in that order (as shown).
- Click [OK].

3. **Load your magnetometer data.**

- a. Select FILE-OPEN (F2 or the Folder icon).

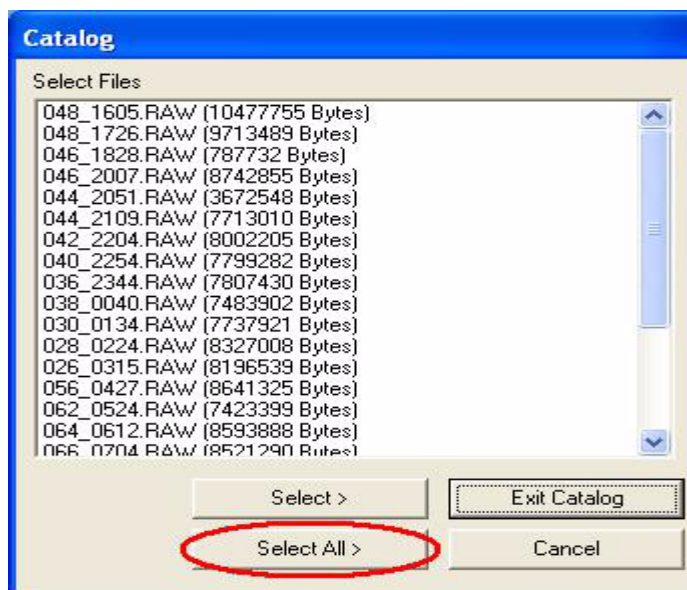


- b. Choose *.LOG file that contains the list of magnetometer files. Be sure to Select the *.LOG file that has RAW at the beginning of the name. The *.LOG files that have HSX at the beginning have the list of files that have Multibeam and Side Scan data.



A Catalog Window appears and shows the list of files within the LOG file.

- c. Click on the Select All button.
- d. When the Corrections Window appears, Click OK.



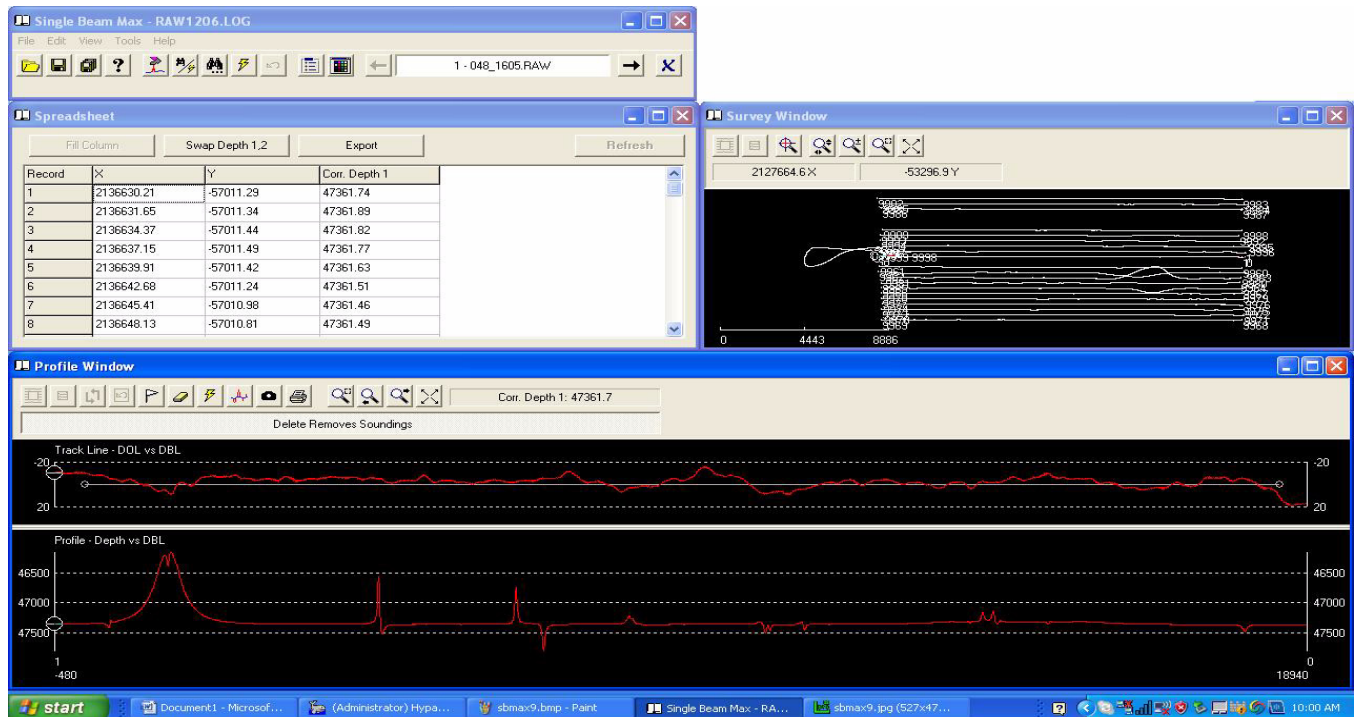
- e. In the Read Parameters Window:
- Choose the Magnetometer Device in the Echosounder fields
 - Choose the Position Device for the Magnetometer in the Navigation field.
 - Select 'No Conversion' under Depth Conversion.

The screenshot shows the 'Read Parameters' dialog box with the 'Selections' tab selected. The 'Echosounder' dropdown is set to 'Magnetometer Interface'. The 'Navigation' dropdown is set to 'mag Cable Counter'. The 'Depth Conversion' dropdown is set to 'No Conversion'. The 'Other' section contains several unchecked checkboxes: 'Snap to Line', 'Ignore Depth Records Before First Event', 'Ignore Planned Line Information', 'Ignore Echogram', and 'Invert Tide Values'. The 'OK' and 'Cancel' buttons are at the bottom.

- Under the Presort Tab, select 'No Presort'.

The screenshot shows the 'Read Parameters' dialog box with the 'Presort' tab selected. The 'No Presort' radio button is selected. The 'Basis' section has 'Time Elapsed' selected. The 'Selection' section has 'First Depth' selected. The 'Increment' field is set to '10'. The 'OK' and 'Cancel' buttons are at the bottom.

- f. Click [OK] to complete the loading process.



4. **Export the data from the Spreadsheet window.**

- a. In the Spreadsheet Window, click [Export]. The Spreadsheet Export dialog will appear.

The 'Spreadsheet Export' dialog box is shown with the following settings:

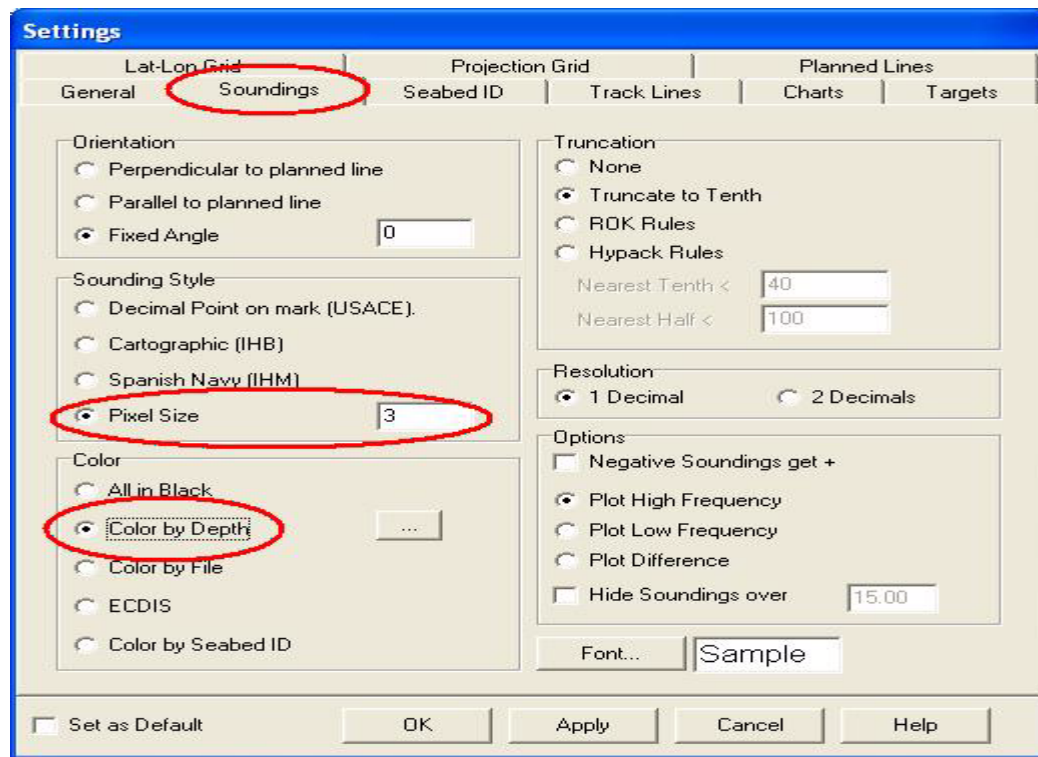
- File Option:** ☒ Single File, ☐ One File per Line
- Format Options:**
 - ☒ Space Separated Fields, ☐ Comma Separated Fields
 - ☐ Include Record Numbers
 - ☐ Include Column Titles
 - ☐ Alternate Time Format: Seconds Past Midnight
 - ☐ Alternate Position Format: Decimal Degrees

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

- b. Select 'Single File' under File Option, and 'Space Separated Fields' under Format Options.
- c. Click [OK]. A Save As Window will appear.
- d. Name your output file name and the location to which it will be saved. Your project's Sort folder is a logical place to store this data as it's analogous to XYZ data.

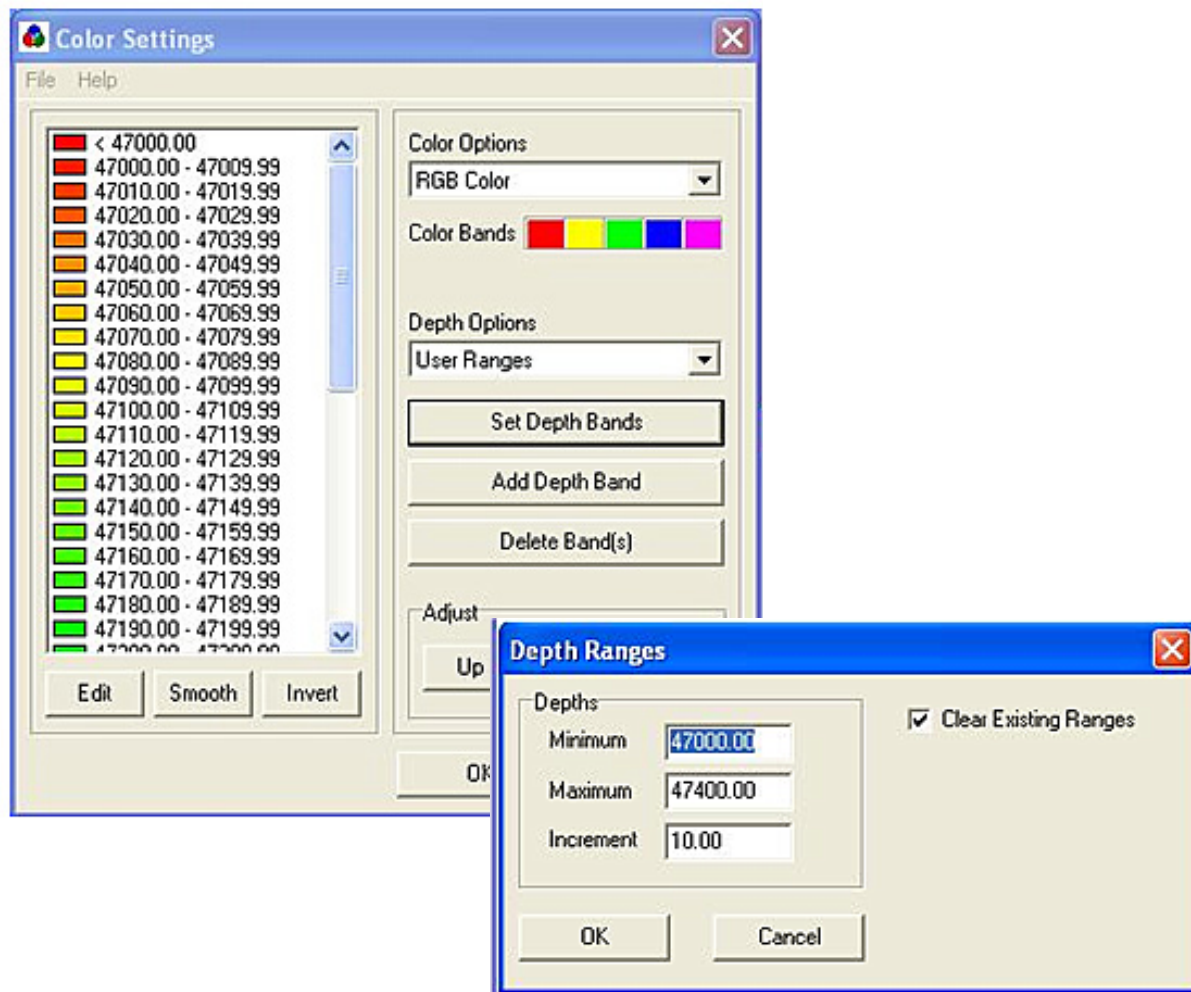
A good file name might be something like 'Mag_12062008', which represents that this file contains the Magnetometer data that was collected on December 6, 2008. It will be saved as Mag_12062008.txt to your project's Sort directory.

5. **Exit the SINGLE BEAM EDITOR without saving any 'edited' files.**
6. **In Windows® Explorer, go to the Sort directory in your project file and change the extension of the text file from *.txt to *.xyz.**
7. **Display your Mag_12062008.xyz in HYPACK®.**
 - a. Load and enable your file in the Sorted Data Files list.
 - b. Select SETTINGS-CONTROL PANEL and set the soundings display options as follows:



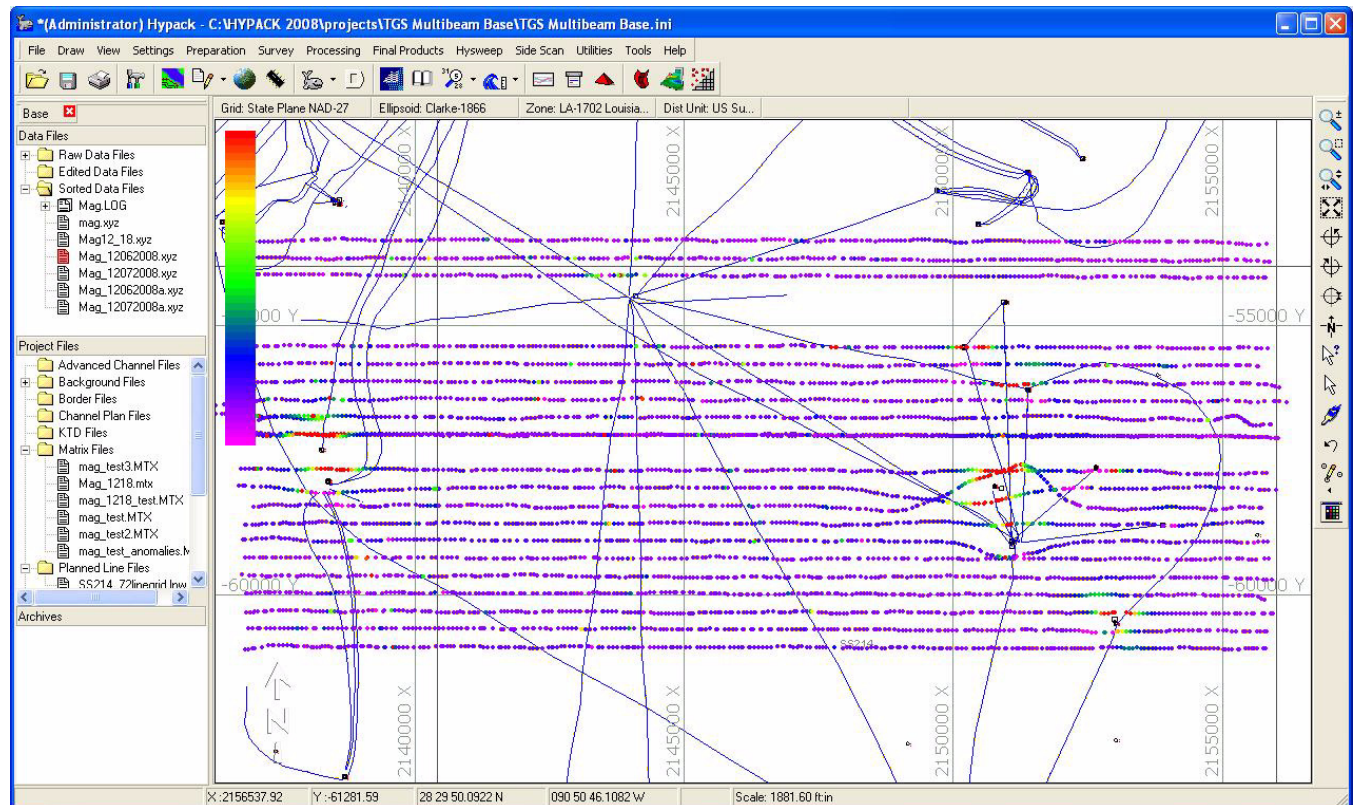
- **Sounding Style:** 'Pixel Size' of 3 or 4. This determines the size of the colored pixels being displayed.
- **Color:** 'Color by Depth'. Click [...] and set the colors for the range of magnetometer values to create about 20-40 color bands. You will need to play with this to accentuate the Magnetometer readings on the main screen.

FIGURE 3. *Setting the Colors for your Magnetometer Data*



- c. Click [OK] to close the Depth Ranges Window,
- d. Click [OK] to close the Color Settings Window.
- e. Click [OK] to close the Settings Window.

The main HYPACK® Screen should now display the Magnetometer data.



This can now be used to verify whether you covered the area properly, that the positioning of the data is correct, and whether any metallic objects exist (above or below the bottom) in accordance with any Pipeline diagrams that you may have in the background.