



Batch Processing with MBMAX64 Auto Processing

By Josh Sampey

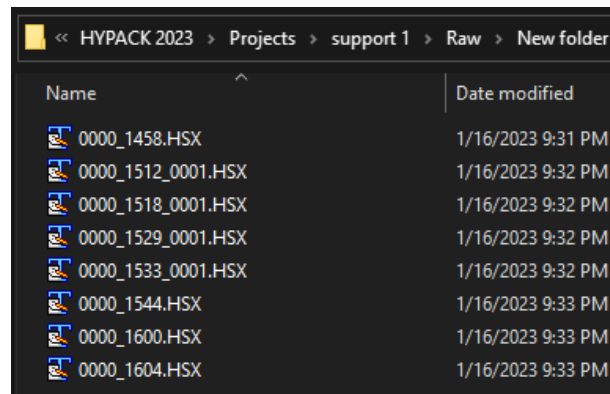
A user at the HYPACK 2023 conference asked if there was a way to use the auto processing tool for batch processing or conversion of very large data sets. This user had more data than they could open in a single 64-bit HYSWEEP® EDITOR (MBMAX64) session, and wanted to run basic filters to convert all the data to HS2X without the need to manually sort the data into groups and convert each group individually. This would allow them to do two things:

- 1) Convert all the data to HS2X data overnight without manual intervention, and
- 2) Convert all the data in the background while continuing to use their computer for other tasks.

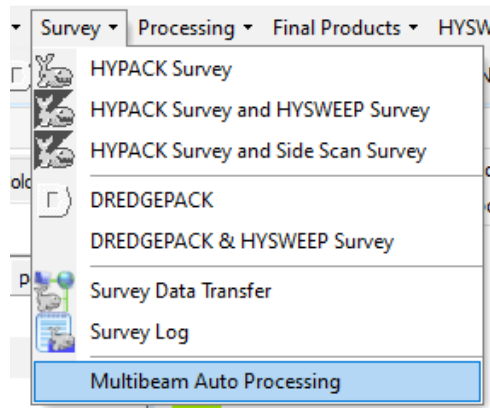
The MBMAX64 Auto Processing tool allows users to open a single file in MBMAX64, apply read parameters and basic filters, and convert data to binary HS2X format without utilizing ALL available RAM or system resources.

Currently for this to work, Auto Processing needs to be tricked. In normal operation, Auto Processing monitors the Raw data folder. When the recording to a data file is complete, the Auto Processing tool grabs the file and runs it through the process. If we want to use it as a batch processing tool, we need to make it appear that a file is finished being written to. To trick the Auto Processing into batch processing your files, follow the steps below.

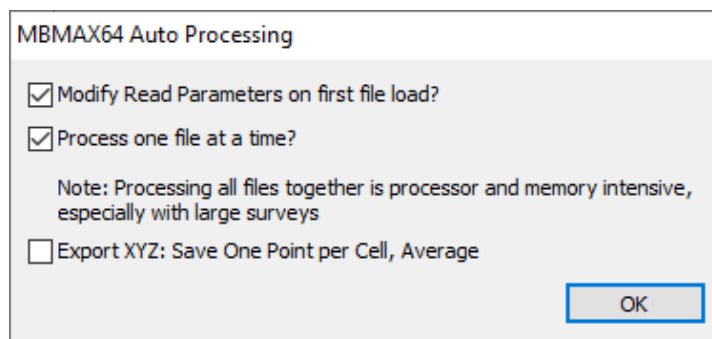
1. In your Raw folder or another location on your PC, create a new folder and move all your raw data into that folder. In this case, I moved all the HSX data into the New Folder inside the project's Raw folder.



-
2. Inside the HYPACK® Shell, start the auto processing by clicking Survey > Multibeam Auto Processing.



3. In the MBMAX64 Auto Processing settings, enable the following: Modify Read Parameters on the first file load, and Process one file at a time.



4. MBMAX64 will pop up and in the corner of the overview display you will see a red box indicating Auto Processing is active. Make sure to leave MBMAX64 open.

MBMAX64 Auto Processing
Click Here to Stop

5. Once Auto Processing is active, navigate to the folder containing your HSX files. Cut all of the files and paste them into the Raw folder in your project. As soon as this is done, you will see the Read Parameters window appear. Go through the read parameters as you normally would setting all correctors and processing methods you wish. If you want to run some filters, make sure to check and configure Apply Filters in the Read Parameters

Survey tab. When everything is configured click [OK].

Read Parameters

Survey Corrections Devices Processing

Survey

Depth Mode Elevation Mode Load Sidescan (if available)

14:58:20 10/26/2022

Select Frequency

1 2

Load Multidetector (if available)

castlegar_dam |

Details Memory Test...

Matrix

Cells 0.50 x 0.50 | Cloud Sections 300 x 300 | Auto Size to Data | Rotate to Survey Line

Edit...

Auto Processing

Auto Stage 2

Auto Save and Exit

Apply Filters Setup...

POSPac Setup...

True Heave Setup...

TPU

Calculate TPU

Accuracy Standard

IHO Special Order

TPU Editor...

Reload TPU

OK Cancel Apply

- Auto Processing will now pull in each HSX file, apply all your selected filters and settings, convert each file to HS2X, close the line, and do the same process for all lines you placed in the Raw folder. The process will proceed in the background of the PC until all files are converted. While this is occurring, you can still use your PC for other tasks.

NOTE: It is recommended that you have at least 16 GB of RAM for smooth PC operation during this processing.
