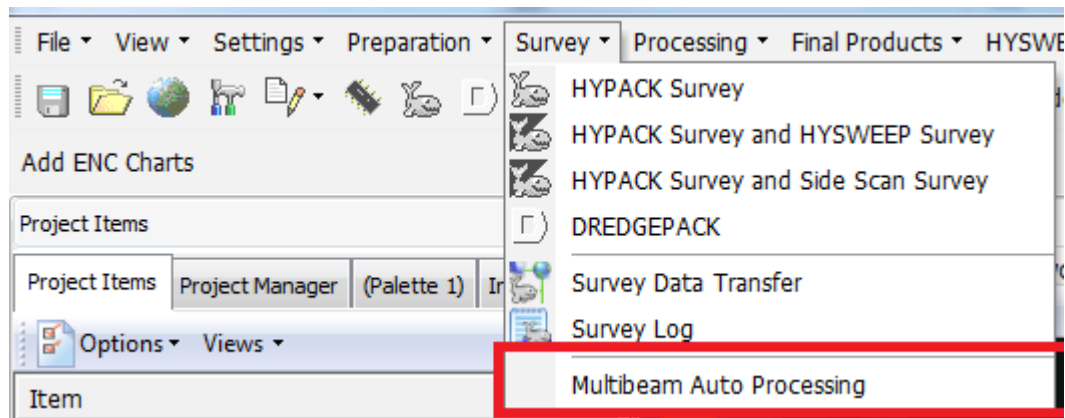# MULTIBEAM AUTOPROCESSING

By Connor MacDonald

HYPACK is proud to release an update that allows multibeam data to be processed as it is being collected.

Once an HSX file is fully logged, MBMAX64 AUTO PROCESSING loads the file, applies any user-defined corrections and filters, and saves the results to the binary HS2x format. HS2x files load to the 64-bit HYSWEEP® EDITOR (MBMax64) much faster, which means significantly less time wasted during the manual processing phase!!!

NOTE: MULTIBEAM AUTOPROCESSING can not process files with both hydrographic and LIDAR data.

MULTIBEAM AUTO PROCESSING is accessed from the SURVEY menu item.

FIGURE 1. *Launching MULTIBEAM AUTO PROCESSING*

Using the tool is as simple as opening it up, selecting a few settings, and then beginning your data acquisition process as normal.

IMPORTANT: To be sure all data is processed, MULTIBEAM AUTOPROCESSING must be running *before you begin logging data*.


MULTIBEAM AUTO PROCESSING INSTRUCTIONS

When you first open MULTIBEAM AUTOPROCESSING, the program asks for your processing instructions.

MODIFY READ PARAMETERS?

The first setting is "Modify Read Parameters on first file load?"

Select "Yes" to review or modify the Read Parameters (as in MBMAX64) when logging the first HSX file is completed. Among other things, filtering and matrix settings can be set here.
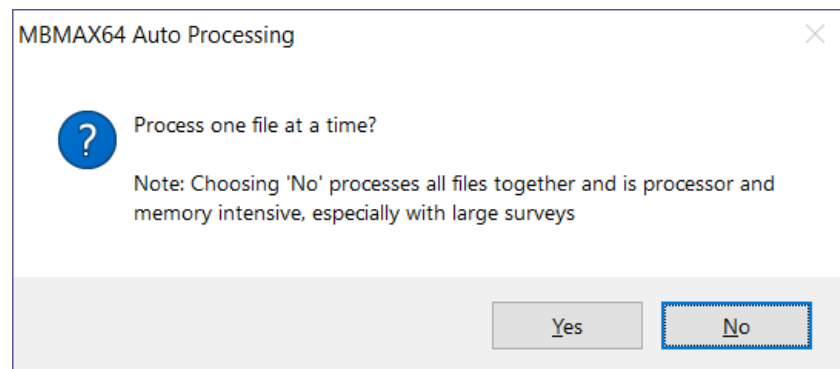
Select "No" to use the Read Parameters from the last MBMAX64 session.

MBMAX64 Auto Processing ✕

? Modify Read Parameters on first file load

Yes   No
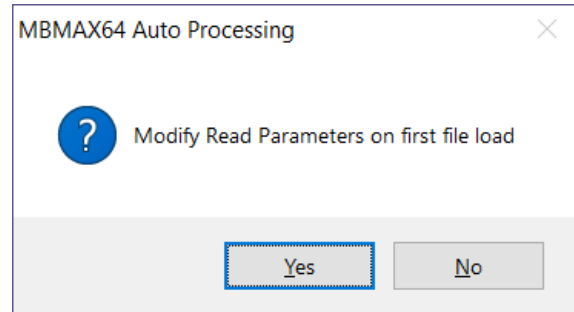
PROCESS ONE FILE AT A TIME?

The next setting is whether to process one file at a time.

The data from large surveys processed together can exceed the memory capacities of the processing computer, and may also interrupt the processing necessary for data acquisition.
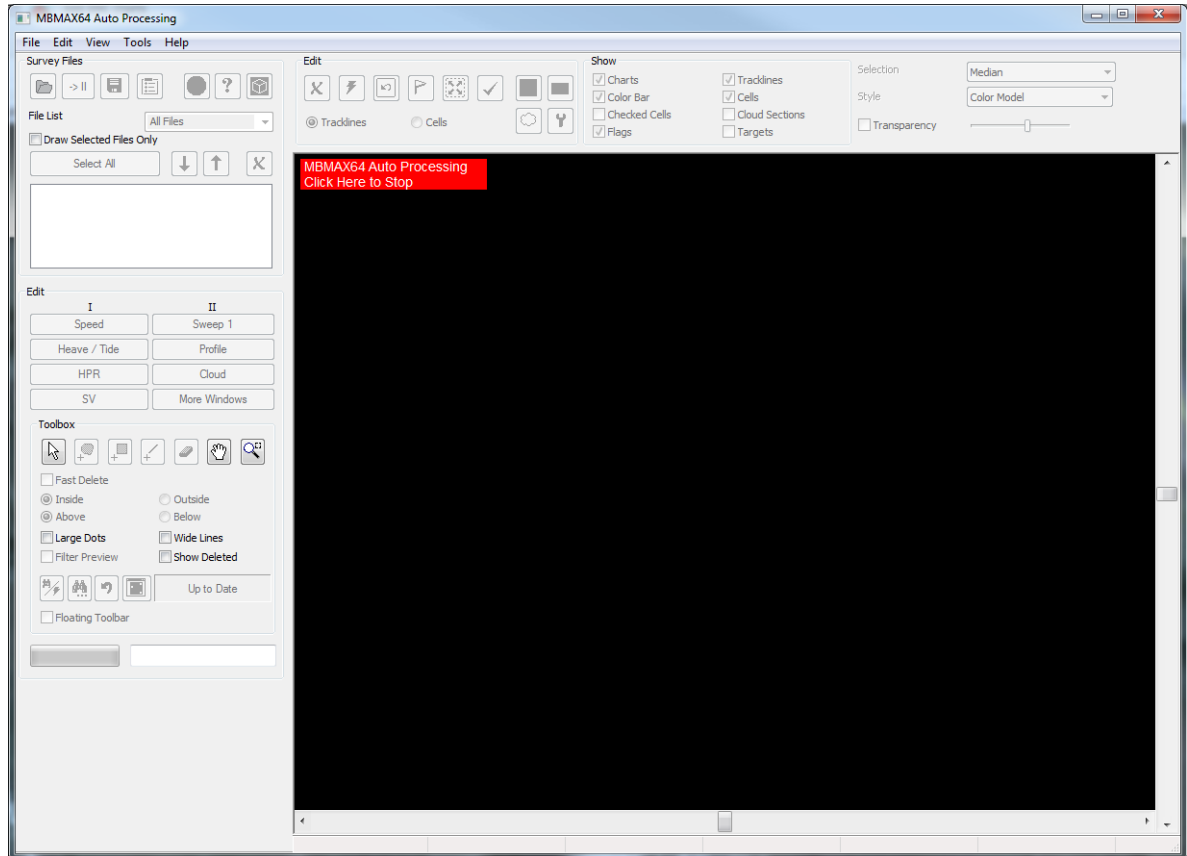
MBMAX64 Auto Processing ✕

? Process one file at a time?

Note: Choosing 'No' processes all files together and is processor and memory intensive, especially with large surveys

Yes   No

> **Tip:** MULTIBEAM AUTOPROCESSING can be configured to run on another computer via a network project, which will eliminate the conflict with acquisition on the survey computer; however, you must still consider the memory limits of the network computer for autoprocessing data from lengthy survey sessions.
> Please read Mike Kalmbach's article for a more detailed explanation. Let us know how it works!
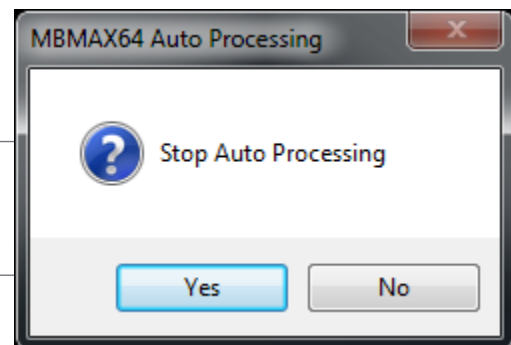
MULTIBEAM AUTOPROCESSING Interface

After you have provided the processing instructions, the familiar MBMAX64 interface appears, but with some slight differences.

- The big red box in the display window is to help differentiate between the MBMAX64 post-processing mode and MULTIBEAM AUTOPROCESSING. Click inside the box and MULTIBEAM AUTOPROCESSING allows you to stop the Auto Processing mode.

  Select "Yes" to return MBMAX64 to its regular, post-processing mode, and manual processing is re-enabled.

NOTE: All of the file loading and manual editing functions are disabled when in autoprocessing mode.

READ PARAMETERS

When the first HSX file has been logged, if you clicked [Yes] for the "Modify Read Parameters on First File Load option, the MULTIBEAM AUTOPROCESSING displays the Read Parameters (just like in regular MBMAX64).

With the exception of PosPac and TrueHeave corrections, all of the settings that are available in MBMAX64 are available here.

FIGURE 3. *Read Parameters*

- The **Auto Stage 2** option in the Auto Processing section is required and disabled. This converts the data into a format that MBMAX64 can store into our HS2x files for quick loading.
- **Apply Filters**: Feel free to check the checkbox and use the "Setup…" button to create filters for your survey data: beam angles, depths, or anything else.

Once the read parameters have been set for the first HSX file, the same parameters are used for each subsequent file as they are logged.

That's about it! Load MULTIBEAM AUTOPROCESSING, set the two settings, open your survey, and set read parameters. The files will be ready to be edited as HS2x instead of HSX.