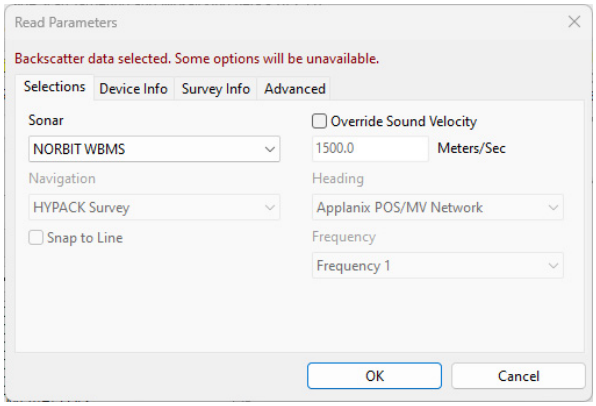
Backscatter Update for Side Scan Targeting and Mosaicking

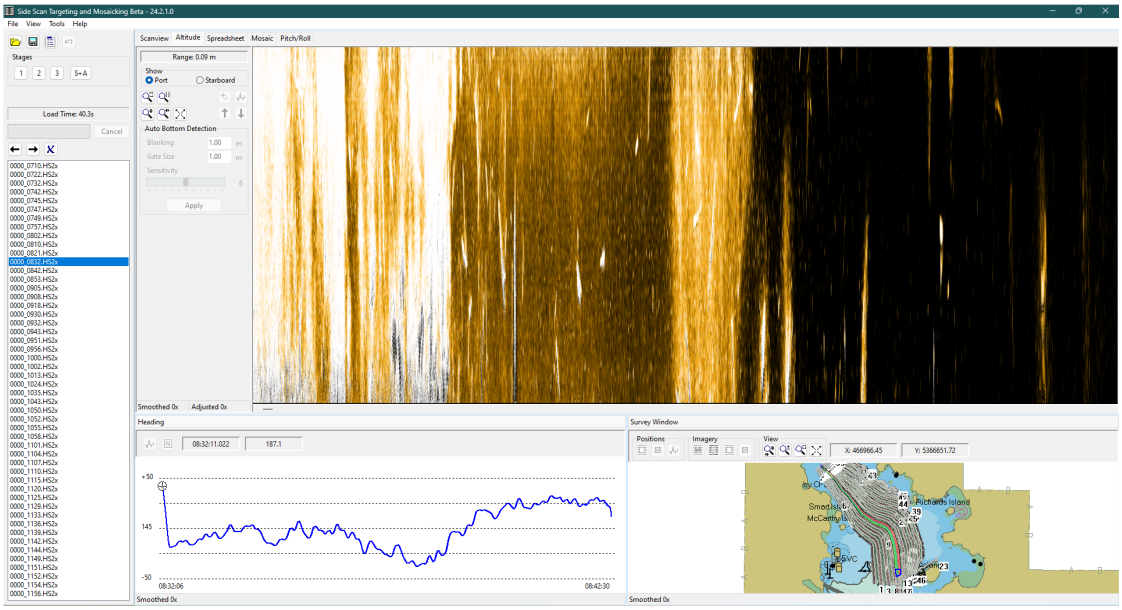
By Daniel Tobin

The Side Scan Targeting and Mosaicking Beta (SSTM) now supports loading backscatter exports from MBMAX64 in the HS2x format. Our long-term goal is to offer a modern alternative to GEOCODER™, which hasn't been updated in many years.

Once you've exported your backscatter data, you can load it like you would any side scan dataset in SSTM. You'll notice that backscatter data is treated slightly differently in SSTM. For example, anything that would modify position data will not be available. Position editing should be done in MBMAX64 before exporting.

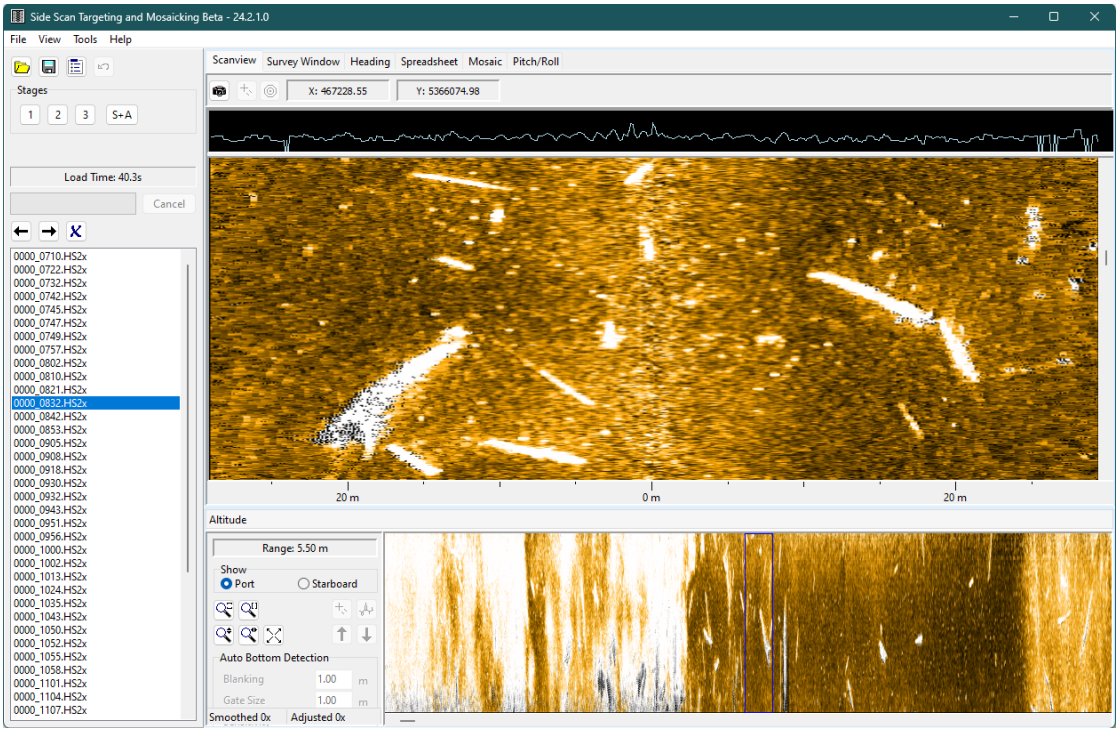


Additionally, bottom track editing will be disabled, as backscatter data does not have a water column where altitude can be edited.

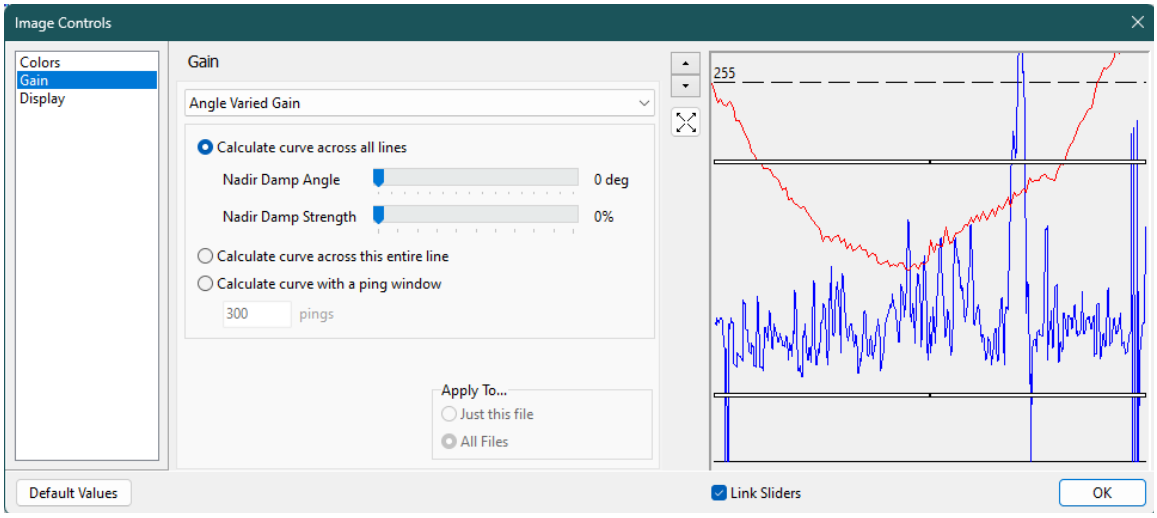


Dataset credit: MCCOI Marine Ltd. (mccoi-marine.com)

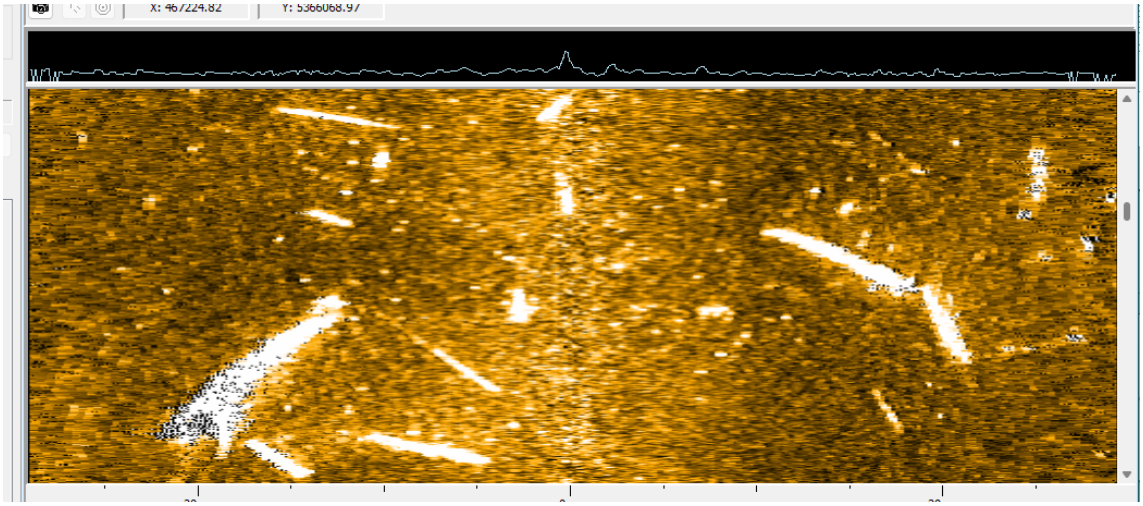
The Scan and Altitude views offer a great way to quickly overview a line's data. Click anywhere in the Altitude view at the bottom to jump the Scan view to that section.



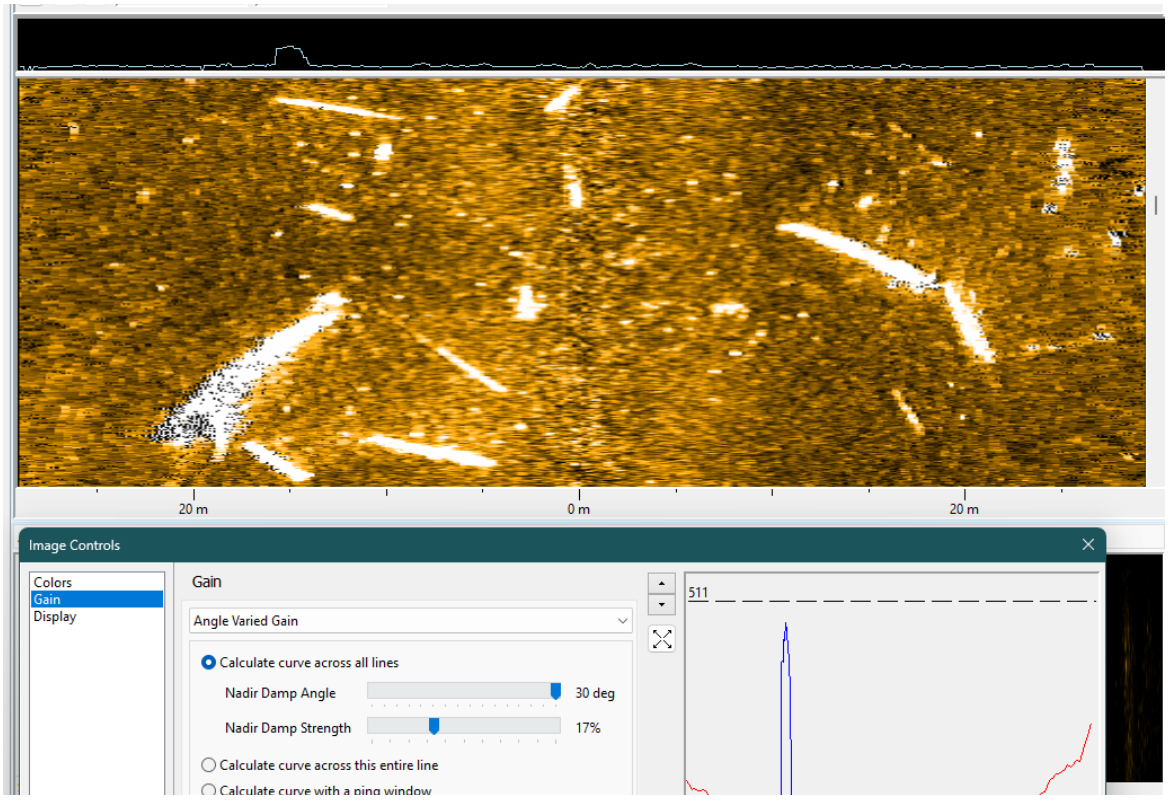
There's a new gain option that works great with backscatter data as well. It's a modification of our Angle Varied Gain that uses data across all lines to create a gain curve.



Additionally, this new gain option allows you to dampen the nadir. In this dataset, you may notice the center of the waterfall is consistently brighter than the edges:

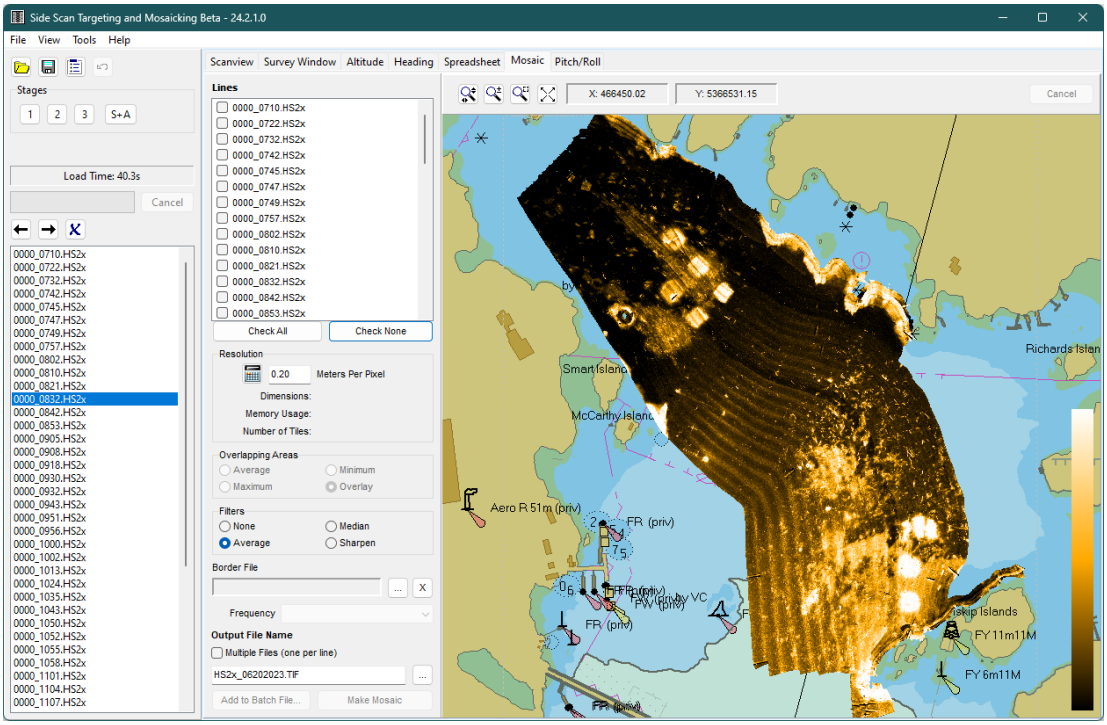


The nadir dampening options allow you to lower the brightness of just the nadir, allowing it to blend better with the rest of the data.



The difference can be subtle, though we have plans to improve the gain applied to the nadir in future releases.

Here is what the final mosaic looks like:



While we still have a way to go to match GEOCODER™'s image quality, these are promising first steps towards processing backscatter data in SSTM.