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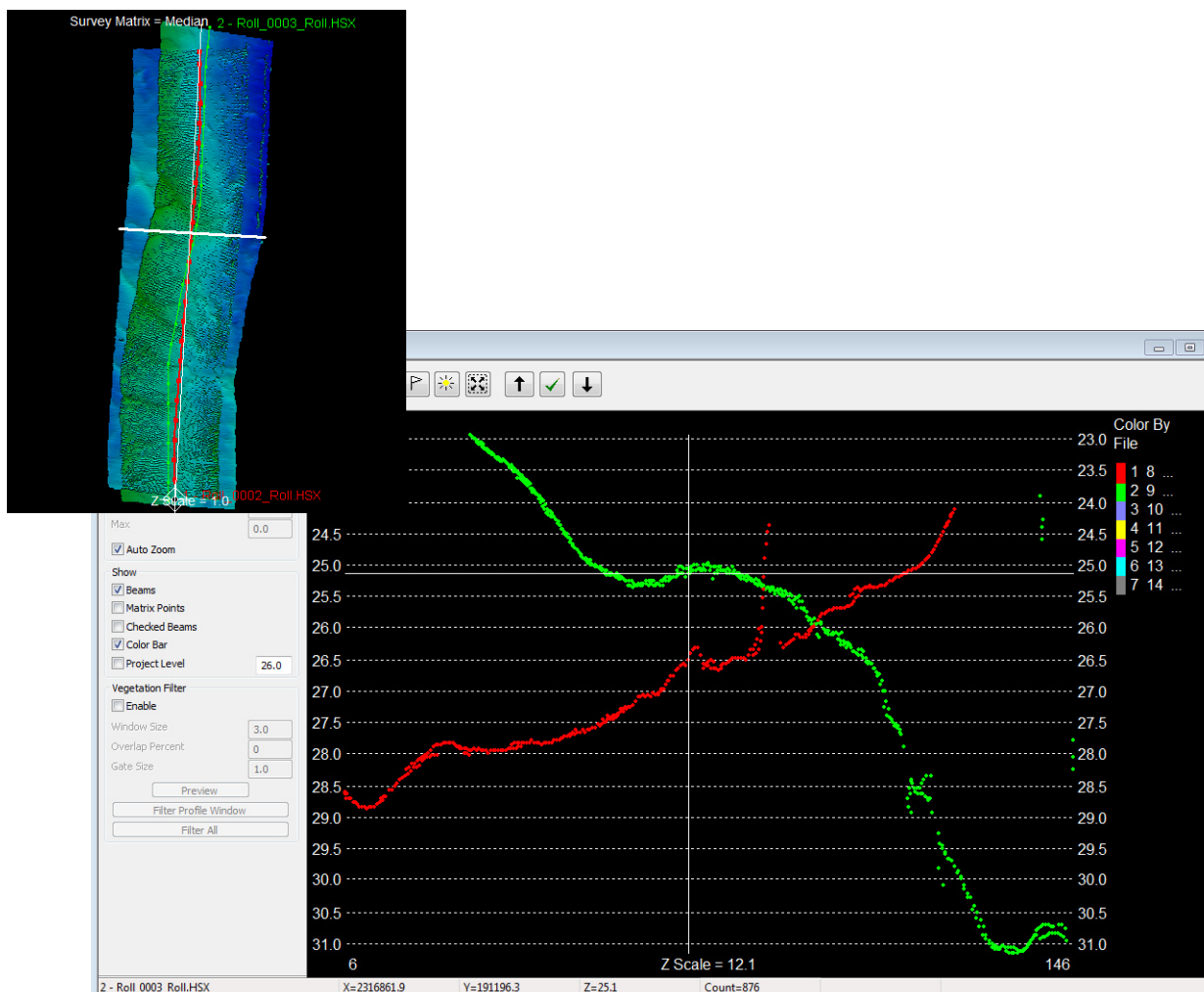
Sounding Better!

MBMax64 Multibeam Wobble Tool Reverse Mount

By Christian Shaw

I came into a situation recently where the physical, MBES Sonar mount was reversed relative to what the settings were in the sonar's software settings. When the mount was observed, it was aft; however, the sonar software showed it was a forward installation orientation. We were performing patch test in MBMAX64 (64-bit HYSWEEP® EDITOR) and, when two roll and pitch lines were run and shown in the editor, the data looked very bad! This was a red flag that something was wrong.

FIGURE 1. Using the Cross Section Tool to Cut Sections Through Two Overlapping Lines (top) and the Resulting Profiles (bottom)



This was not good!

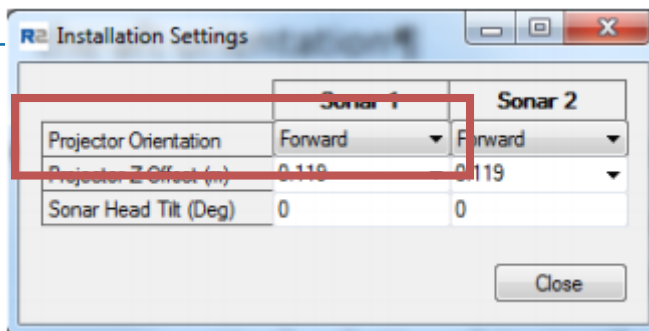
We had a couple of options:

- We could change the settings in the sonar software and reverse the mount orientation or
- In HYPACK® there is a tool for this!

We were already done with the survey and in transit, so we decided to have HYPACK® fix this error. I recommend for all future surveys to set it right in the sonar software, however this will fix the data in the meantime!

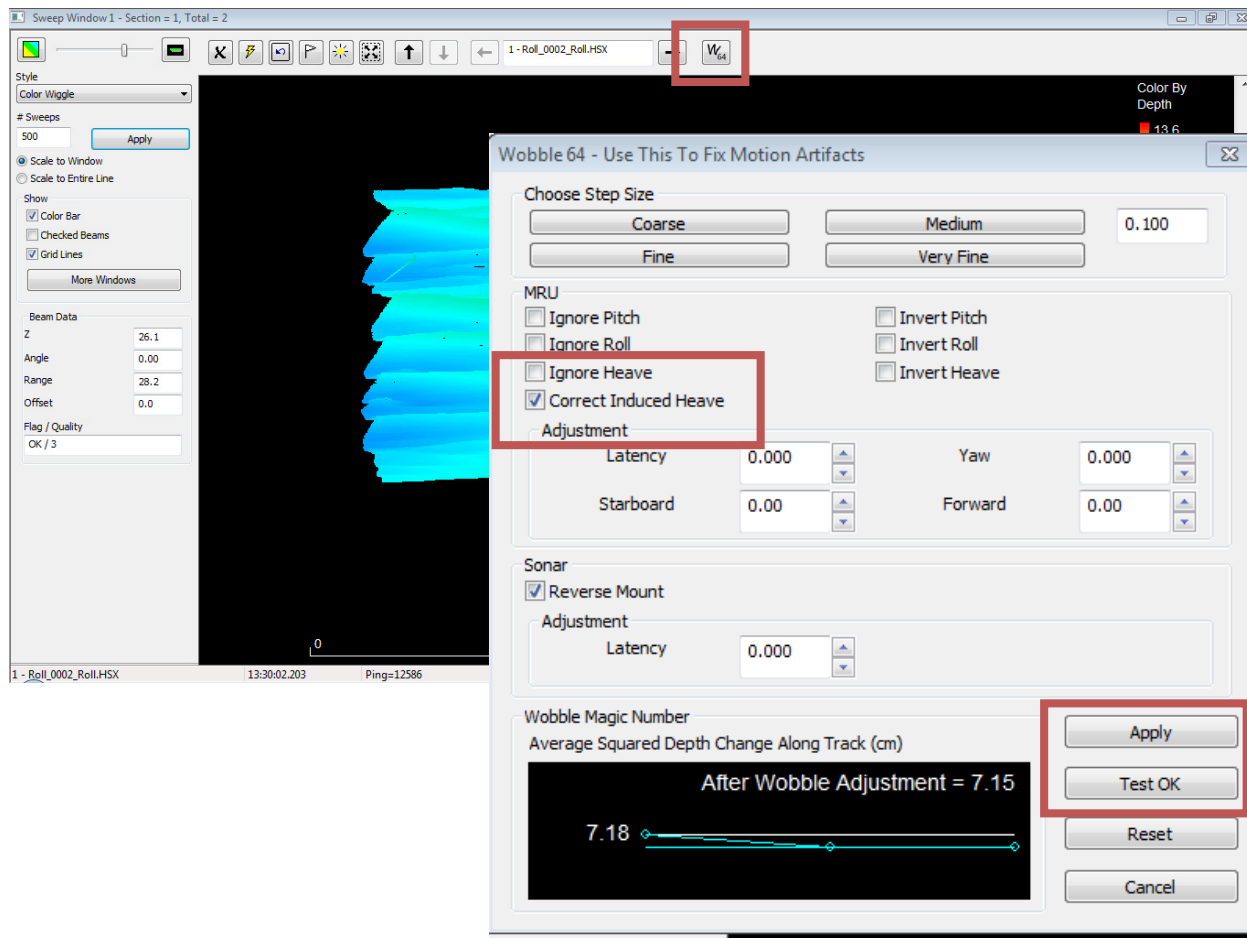
FIGURE 2. Offsets in the Sonar Software

The mount should have been aft.



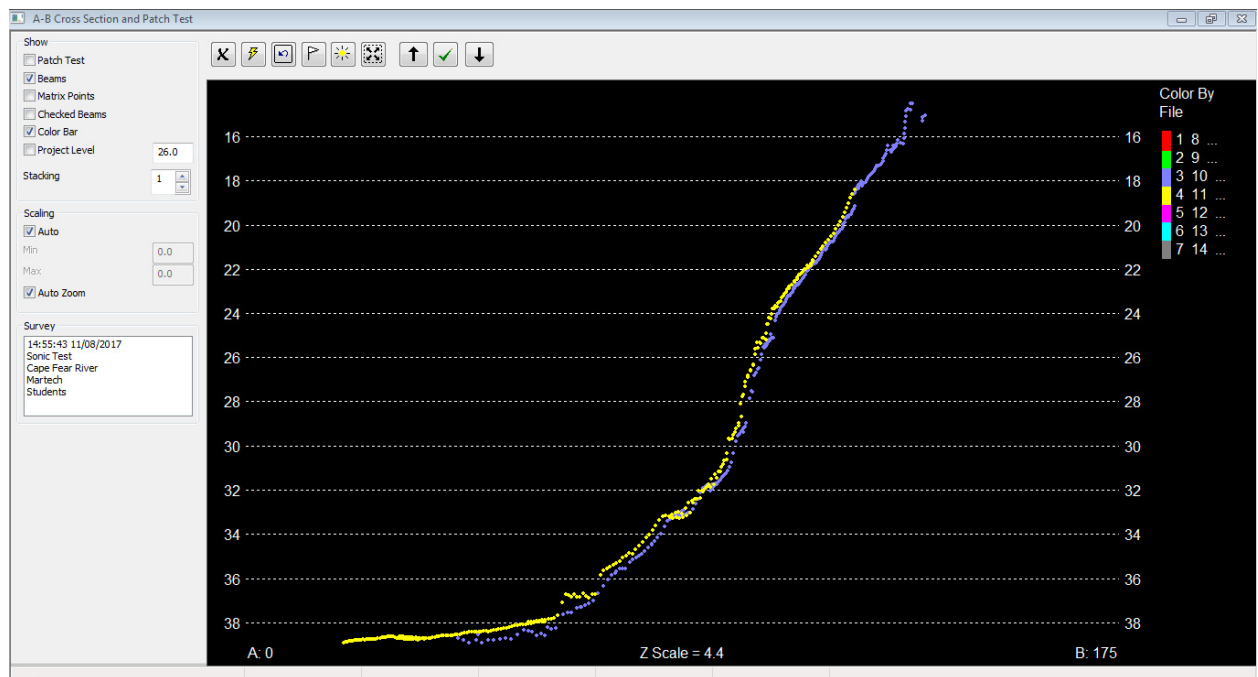
In MBmax64 if you navigate to the Sweep Window you will find the Wobble Tool 64.

FIGURE 3. Reversing the Mount with the Wobble Tool 64 in the 64-bit HYSWEEP® EDITOR



Check the Reverse Mount option and click [Apply] then [Test OK].

Once the mounting orientation is fixed, you can see that the overlaying passes—especially on the slopes—match up much better!



We recommend configuring the MBES firmware correctly from the start, but sometimes you may have no choice. There are ways to fix the data in HYPACK® in many cases!