



HYPACK
a xylem brand

Sounding Better!

Multibeam Sonar with Pan and Tilt

By Judy Bragg

NORBIT and Reson sonar can pass through pan (rotate) and tilt information, providing a 360 scan of your project area.

HYPACK® 2021 provides updates that enable the NORBIT WMBS, and Reson T20P and T50P drivers to read the pan and tilt data from the sonar and calculate accurate sounding positions.

HARDWARE CONFIGURATION

All of the survey data comes from the device controller through a network connection to the survey computer.

In the Driver Setup, select the **Use Rotator Data** option to tell the driver to expect and process the pan and/or tilt data input.

NORBIT WBMS Driver Setup

WBMS Setup

☐ Sidescan Recording

☐ Snippet SS Recording

☒ Use Pass Through Position, Heading and MRU

☒ Use Rotator Data

☐ Snippet Recording

☐ Log Datagrams

☐ Log Water Column

Dual Head

☐ Log Head 1,2 Snippet Datagrams to Separate Files

☒ Merge Head 1,2 Snippet Datagrams into a Single File

OK Cancel

The screenshot shows the 'Reson Setup' dialog box with the following settings:

- ☐ Side Scan Option
- ☐ Use Snippets
- ☐ Log Seabat Datagrams
- ☐ Snippets from 7058 Datagram
- 7K Drivers**
 - ☐ Datagram Version 1
 - ☒ Datagram Version 2
 - Warning: Patch test offsets may change when switching between datagram versions.**
 - Snippet Samples per Beam**
 - ☐ Auto
 - Min: 5
 - Max: 25
 - ☐ Send Start and Stop Logging Commands to the Seabat
 - ☒ Send HYSWEEP Full Path
 - ☐ Send HYSWEEP File Name Only (M_ and S_ prefix for dual head)
 - ☐ Do Not Send a File Name
- ☐ Use RESON Remote IO
- Base Port: 2020
- ☐ Log Water Column
- ☐ Use 7042 Compressed Water Column Data
- ☐ Use Rotator Data (highlighted with a red rectangle)

Dual Head

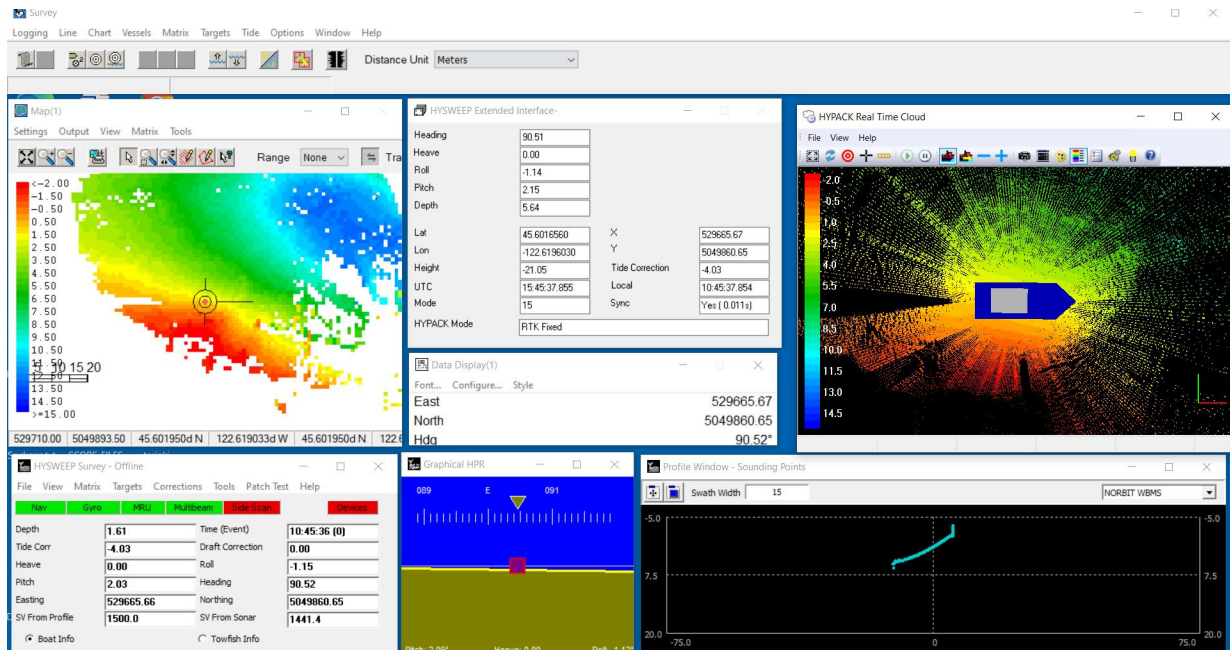
- ☐ Integrated Dual Head
- Slave IP Address: [text box]
- ☐ Log Head 1,2 Snippet Datagrams to Separate Files
- ☒ Merge Head 1,2 Snippet Datagrams into a Single File
- ☐ Merge Sidescan
- ☐ Swap Sides

Buttons: OK, Cancel

HYSWEEP® SURVEY

During the data acquisition, HYSWEEP® SURVEY merges the static device offset information with the dynamic pan and tilt angles of the sonar head to calculate accurate positioning of the soundings and draws them to your screen *in real time!*

The Map window paints the matrix, while the Real Time Cloud display provides an interactive, 3D point cloud display.



64-BIT HYSWEEP EDITOR

The Cloud display in MBMAX64 shows a similar display that you can zoom, pan and rotate to view the data from any angle, and use the editing tools to clean your data as needed.

Color-coding by depth accentuates the vertical changes. Color-coding by Pan Angle helps you visualize which beams logged which sounding as the sonar head rotated.

Color by Depth

