

HYPACK interfaced with Benthos 1624

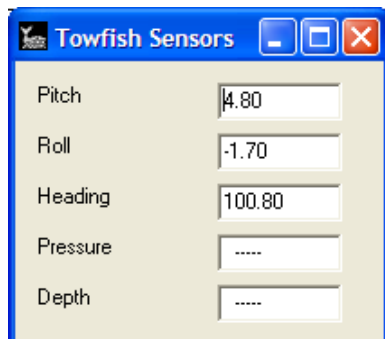
By Harold Orlinsky

HYPACK recently added the Benthos 1624 dual frequency sidescan to the list of side scan sonars supported in our side scan module. The data files are stored in our HSX file format and support the full dynamic range of the data. Additionally, the XTF format can be selected to store the data.

Sonar controls for the system allow you to adjust the range scale, CW or Chirp mode, frequency and pulse length. Gain controls for the hardware allow you to adjust the sonar in real time for improved image quality.

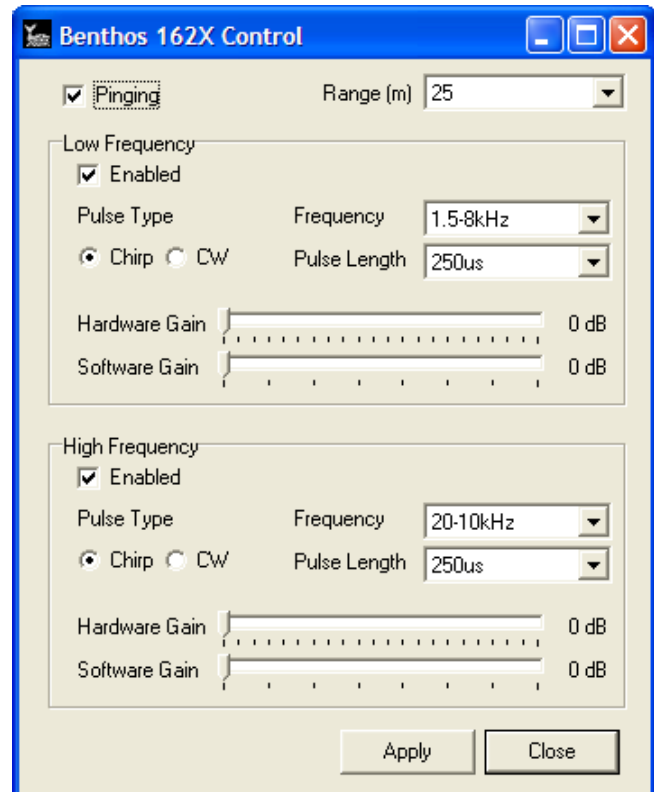
In HYSCAN, you can select the color palette, gain and TVG (manual and auto) in real time and in mosaicking.

The data from sonar, equipped with ancillary sensors, can be displayed while surveying and logged into the data file.



The screenshot shows the 'Towfish Sensors' control window. It contains five input fields for sensor data: Pitch (4.80), Roll (-1.70), Heading (100.80), Pressure (empty), and Depth (empty). Each field has a corresponding label to its left.

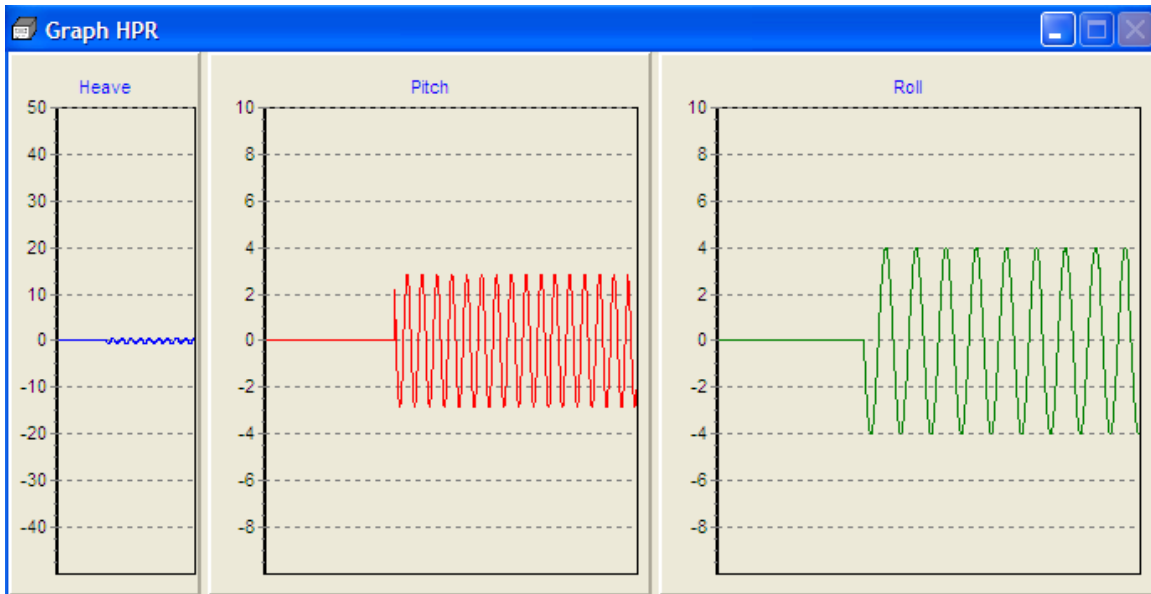
Sensor	Value
Pitch	4.80
Roll	-1.70
Heading	100.80
Pressure	
Depth	



The screenshot shows the 'Benthos 162X Control' window. It features a 'Pinging' checkbox (checked) and a 'Range (m)' dropdown set to 25. Below are two sections: 'Low Frequency' and 'High Frequency'. Each section has an 'Enabled' checkbox (checked), a 'Pulse Type' dropdown (set to Chirp), a 'Frequency' dropdown (set to 1.5-8kHz for Low and 20-10kHz for High), a 'Pulse Length' dropdown (set to 250us), and two gain sliders (Hardware and Software Gain) both set to 0 dB. 'Apply' and 'Close' buttons are at the bottom.

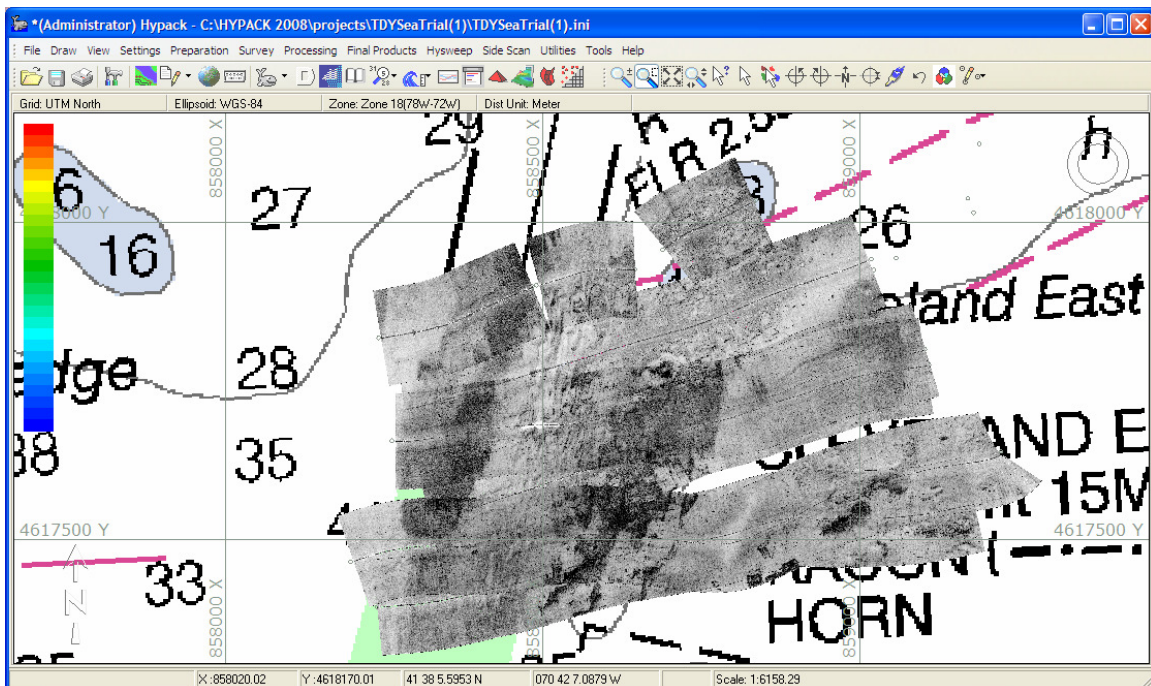
Section	Enabled	Pulse Type	Frequency	Pulse Length	Hardware Gain	Software Gain
Low Frequency	✓	Chirp	1.5-8kHz	250us	0 dB	0 dB
High Frequency	✓	Chirp	20-10kHz	250us	0 dB	0 dB

You can use the GRAPHHPR.DLL in HYPACK Hardware to produced a visual display of the motion in addition to the real time numerical values.

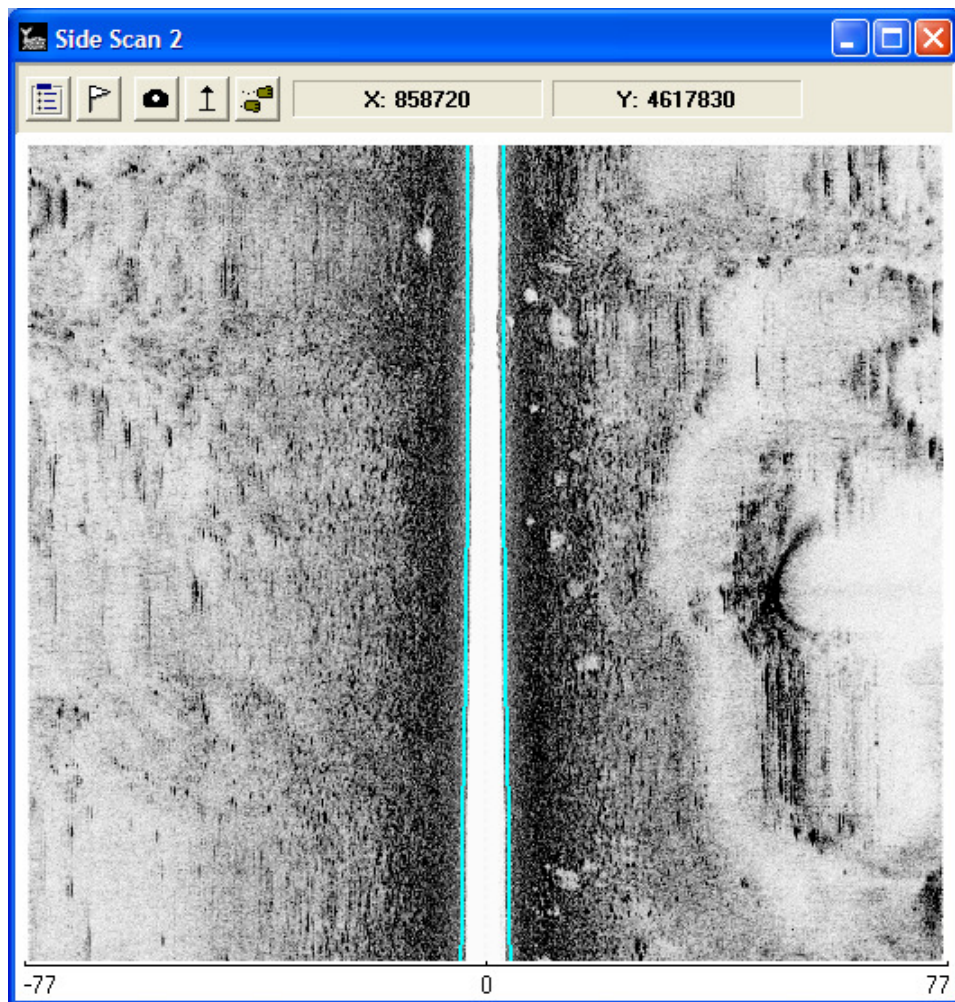


GraphHPR Device Window

Testing was conducted offshore at the Cape Cod Canal near the Cleveland Ledge Light house.



A mosaic of the high frequency data by the lighthouse, passing across the channel. It was processed at 20cm resolution.



A section of a survey line. The base of the lighthouse is located on the starboard side.