

HYPACK 2026 Q2 Release Notes

by Caroline Liu

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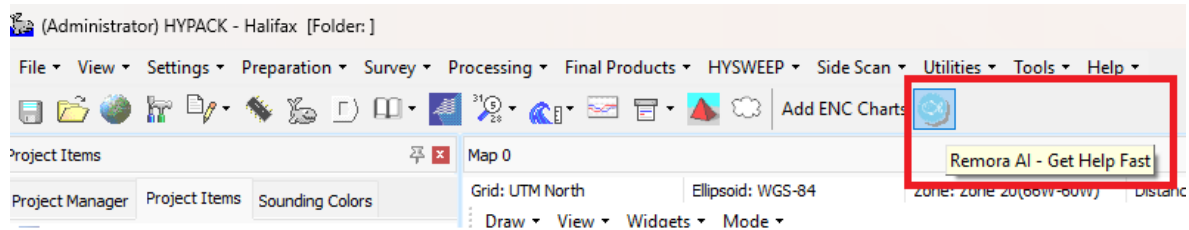
The Table of Contents lists the programs and processes that have received new features, updates, and bug fixes added to the [HYPACK 2026 Q2 Update](#).

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HYPACK SHELL

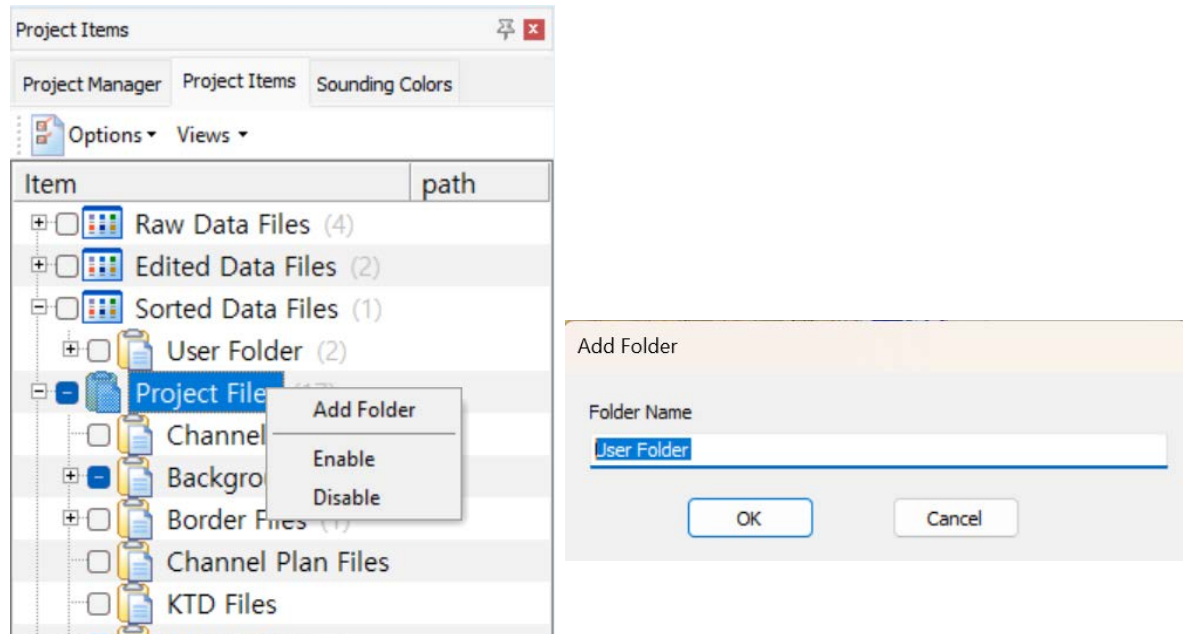
- **Remora AI icon has been added to the HYPACK Shell toolbar.** Remora AI is HYPACK's AI assistant designed to answer questions to help users understand and use HYPACK.



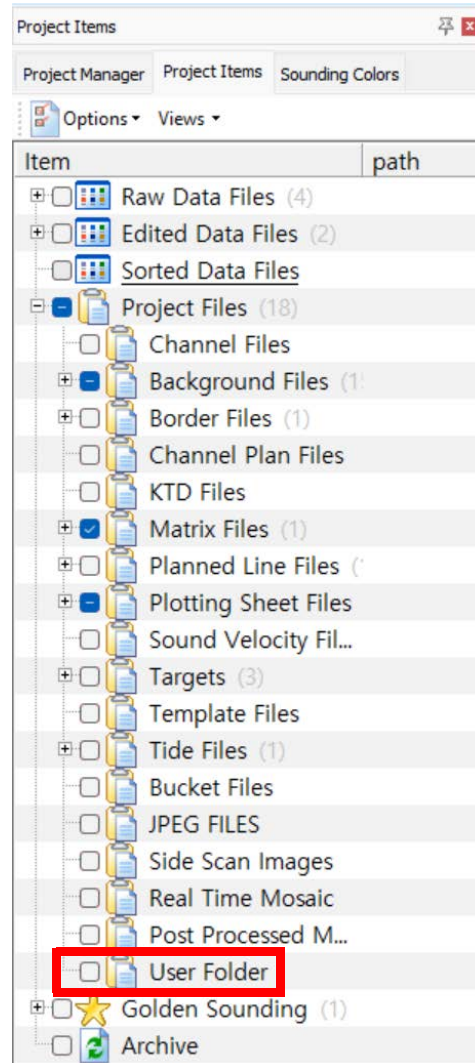
- **A few new applications are introduced in the HYPACK 2026 Q2 release, including the SVP Analyzer, DREDGEPACK® Reports, and the File Verification tool.** These tools are now accessible from the following locations in the HYPACK Shell:
 - > To open the SVP Analyzer: Processing → Sound Velocity → SVP Analyzer.
 - > To open DREDGEPACK® Reports: Utilities → Dredging Utilities → DREDGEPACK REPORTS.
 - > To open HYPACK File Verification: Utilities → File Work → File Verification.
- **Users can now add custom subfolders to folders in the Project Items tab using the new Add Folder option.** This gives users the ability to organize and group their files the way they want. Custom subfolders can be added to all Project Item folders except for the Golden Sounding folder, Archive folder, or under a File.

To use this new option:

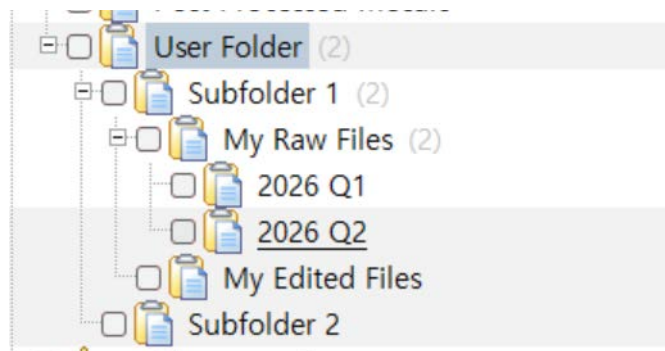
1. Right click on the name of the folder you want to add a subfolder under, and click Add Folder. The Add Folder dialog appears.



2. In the Add Folder dialog, type in the new Folder Name and click [OK]. The new folder appears at the bottom of the parent folder.



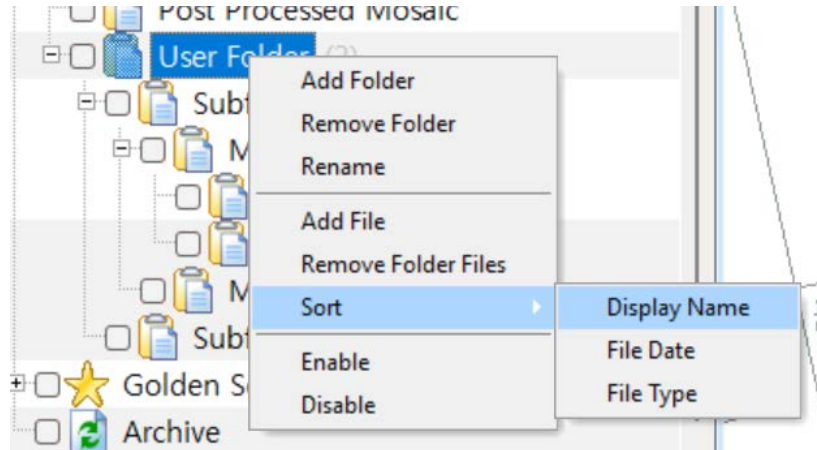
Use the Add Folder option to add as many nested folders as needed. The following image shows an example of multiple levels of subfolders created using the Add Folder option.



Files can be dragged and dropped into user created folders. User created folders can also be dragged and dropped into other Project Items and user created folders.

Right clicking on the user created folder gives a number of options:

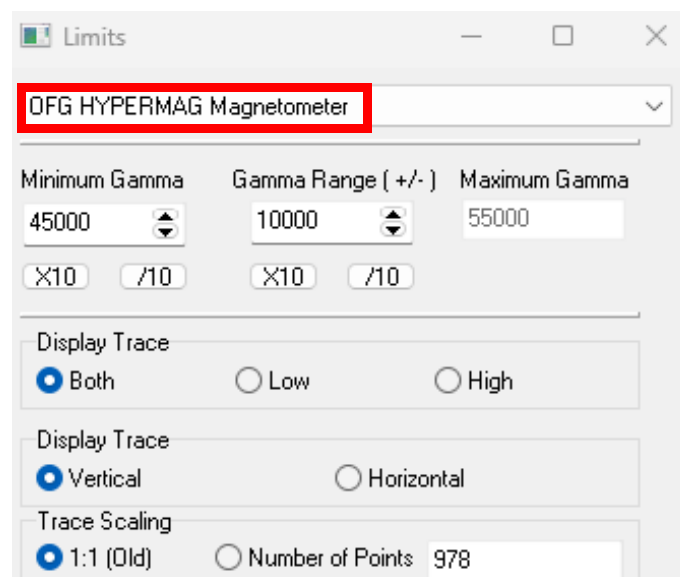
- > Create, delete, or rename user created folders by selecting Add Folder, Remove Folder, or Rename.
- > Add or remove files by selecting Add File or Remove Folder Files.
 - Clicking Add File opens the File Explorer, allowing you to navigate to and select the file you want to add.
 - Remove Folder Files removes all files from the user created folder. Use Add File to add them back.
- > Sort files alphabetically by display name, date last updated, or file type by selecting Display Name, File Date, or File Type.
- > Toggle whether all files are displayed or not in the map window by clicking Enable or Disable from the folder options.



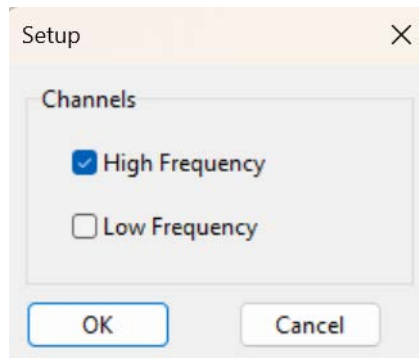
HARDWARE

SURVEY DEVICE DRIVER UPDATES

- **Magnetometer Interface (Magnet.dll):**
New Device Added: OFG (Ocean Floor Geophysics) Hypermag Magnetometer



-
- **CEE Hydro CEE-LINE (CEELINE.dll):** The CEELINE.dll Setup window has been updated. Users can now select between High Frequency, Low Frequency, or both channels to log.



PREPARATION

GEODESY

- **Geoid Model selection is now changed to Auto Geoid.** Users no longer need to manually select the geoid model, it is automatically populated by the choice of selected VDatum Zone.
- **Geoid File Browser - Now Accepts *.gtx Files.** The Browse dialog filter changed from .geo only to .geo;.gtx. Full file paths are now preserved (previously stripped to filename without extension).
- **In the Geodetic Parameters window, the EPSG tab has been removed, and is now replaced with the Mode drop down.** Select Mode -> HYPACK to manually select the grid and zone to automatically populate the projection and datum transformation parameters, which was the previous standard. Select Mode-> PROJ to choose or manually enter a Coordinate Reference System (CRS) to auto populate the datum

transformation parameters.

Geodetic Parameters

File Mode Tools Display Help

CRS: [dropdown] ...

Vert: VDatum

Op: [dropdown] ...

V. Op.: [dropdown] ...

Distance Unit: Meter

Depth Unit: same as horizontal

☐ Elevation Mode (Z-axis positive going up)

Datum transformation parameters

Delta X: 0.0000 Delta rX: 0.00000000

Delta Y: 0.0000 Delta rY: 0.00000000

Delta Z: 0.0000 Delta rZ: 0.00000000

Delta Scale: 0.00000000

Datum shift file: [dropdown] X

Projection: [dropdown]

Local Grid Adjustment: ☐ Local Grid

RTK Tide Method

☐ Not using RTK tide

☐ (K-N) from KTD file

☐ N from geoid model, K from KTD file

☒ N from geoid model, K from VDatum

☐ N from geoid model, K from user value

☐ (K-N) from user value

Geoid Model: [dropdown]

Orthometric Height Correction: 0.000 m

VDatum zone: [dropdown]

Chart Datum: [dropdown]

OK Cancel

Click the three dots next to CRS to open the CRS Browser. Click the Browse Database radio button to search for a coordinate reference system by the name of the area or authority (EPSG, Esri, IAU_2015, IGNF, PROJ).

CRS Browser

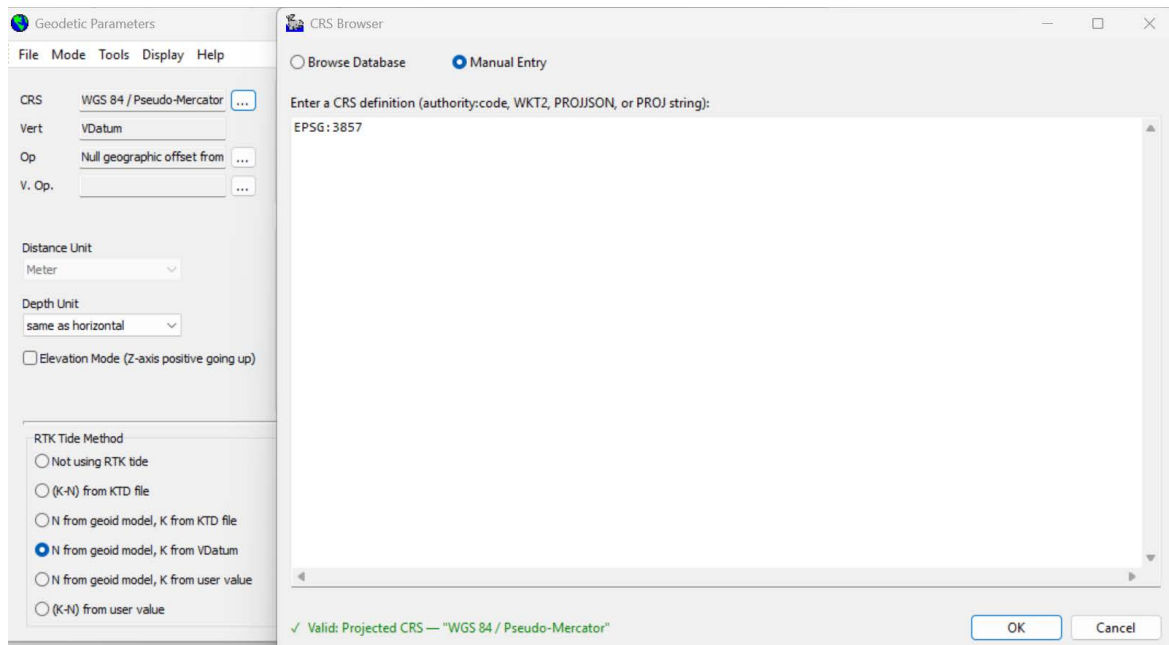
☒ Browse Database ☐ Manual Entry

Search: [text box] Authority: All Show deprecated ☐

Area	Count	Authority	Code	Name	Area
(All)	7228	EPSG	2165	Abidjan 1987 / TM 5 NW	Côte d'Ivoire (Ivory Coast)
Africa	5	EPSG	2043	Abidjan 1987 / UTM zone 29N	Côte d'Ivoire (Ivory Coast)
Africa and the Arabian pe...	2	EPSG	2041	Abidjan 1987 / UTM zone 30N	Côte d'Ivoire (Ivory Coast)
Albania	6	EPSG	9387	AbInVA96_2020 Grid	United Kingdom (UK) - on
Algeria	16	EPSG	9388	AbInVA96_2020 Grid + ODN height	United Kingdom (UK) - on
AMANU (ARCHIPEL DES ...	1	EPSG	2136	Accra / Ghana National Grid	Ghana - onshore.
American Samoa	7	EPSG	2137	Accra / TM 1 NW	Ghana - offshore.
ANAA (ARCHIPEL DES TU...	2	EPSG	20135	Adindan / UTM zone 35N	South Sudan and Sudan -
Angola	9	EPSG	20136	Adindan / UTM zone 36N	Ethiopia - west of 36°E. So
Angola (Cabinda)	3	EPSG	20137	Adindan / UTM zone 37N	Eritrea. Ethiopia - between
Anguilla	1	EPSG	20138	Adindan / UTM zone 38N	Ethiopia - east of 42°E.
Antarctica	101	EPSG	20538	Afgooye / UTM zone 38N	Somalia - onshore north o
Antarctica between 45°E ...	1	EPSG	20539	Afgooye / UTM zone 39N	Somalia - onshore east of
Antarctica.	2	ESRI	102022	Africa_Albers_Equal_Area_Conic	Africa
Antigua island	1	ESRI	102023	Africa_Equidistant_Conic	Africa
ANTILLES FRANCAISES	3	ESRI	102024	Africa_Lambert_Conformal_Conic	Africa
APATAKI (ARCHIPEL DES ...	1	ESRI	102011	Africa_Sinusoidal	Africa
APATAKI, RAPA et HAO	4	EPSG	5825	AGD66 / ACT Standard Grid	Australia - Australian Capi
ARC System	18	EPSG	20249	AGD66 / AMG zone 49	Australia - onshore and of
ARCHIPEL POINTE GEOL...	2	EPSG	20250	AGD66 / AMG zone 50	Australia - onshore and of

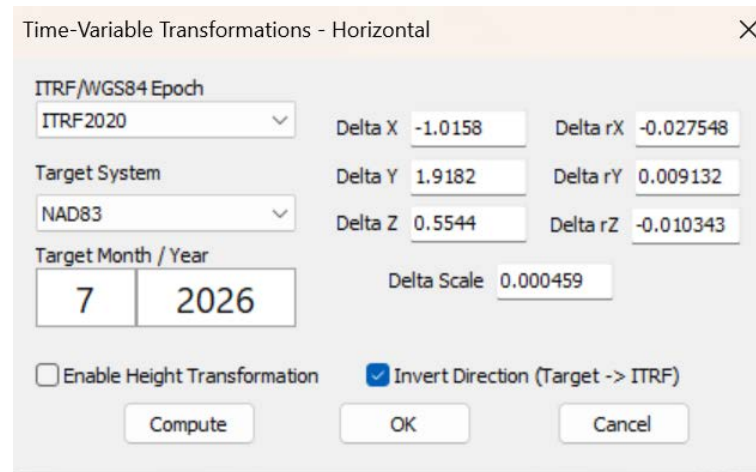
OK Cancel

To manually enter the CRS definition, click the Manual Entry radio button. If an available CRS is entered, a status message will appear at the bottom of the window confirming a valid projection has been entered. Click [OK].



TIME-VARIABLE TRANSFORMATIONS

- **New checkbox added to the Time-Variable Transformations Window: Invert Direction (Target ? ITRF).** When checked, all 7 Helmert parameters (dx, dy, dz, rx, ry, rz, sc) are inverted. This allows users working in NAD83 with ITRF-frame VDatum zones to reverse the TVT direction without manually adding a negative sign to each parameter.



- **In the Time-Variable Transformations Dialog, the Target Year field has been changed to Target Month/Year and has received a visual update, with the option now allowing users to set target month and future dates if desired.**

To use this option:

1. From the HYPACK Shell click Preparation -> Geodetic Parameters.
2. In the Geodetic Parameters window, click Tools -> Time Variable Transformations.

- This opens the Time Variable Transformations - Horizontal window.

Time-Variable Transformations - Horizontal

ITRF/WGS84 Epoch
ITRF2020

Target System
NAD83

Target Month / Year
7 2026

Delta X 1.0158 Delta rX 0.027548

Delta Y -1.9182 Delta rY -0.009132

Delta Z -0.5544 Delta rZ 0.010343

Delta Scale -0.000459

☐ Enable Height Transformation ☐ Invert Direction (Target -> ITRF)

Compute OK Cancel

- Click the Target Month/Year field to set the month and year, using your mouse scroll wheel or arrows in the field to increment/decrease the values. Note that HYPACK® assumes the first date of the month, ie: 2/2026 is February 1, 2026.

Time-Variable Transformations - Horizontal

ITRF/WGS84 Epoch

Target Month / Year
4 2023
5 2024
6 2025
7 2026
8 2027
9 2028
10 2029

Delta X 1.0158 Delta rX 0.027548

Delta Y -1.9182 Delta rY -0.009132

Delta Z -0.5544 Delta rZ 0.010343

Delta Scale -0.000459

☐ Invert Direction (Target -> ITRF)

OK Cancel

64-BIT HYSWEEP® EDITOR (MBMAX64)

- The Priority option has been added to the Color Settings dialog, which color codes soundings in the MBMAX64 display windows according to detection priority code.

Color Settings

☒ Black Background
☒ Color by File
☐ Color by GPS Mode

Depth Color Palette
Spectrum

Project Level
0.00

Custom Colors Export Colors

Soundings

Color By
Depth

Depth
Sonar Head
Port / Stbd
TVU
THU
Beam Angle
Beam Number
Tide
Heave
Pitch Angle
Roll Angle
Checked Beams
None
Intensity
RGB Color
Detection
Frequency
Pan Angle
Priority

Minimum Maximum

0.00 1.00
0.00 255.00
Standard
1.00
1.00

Limit
25
1.00
1.00

Default Values Apply Close

To access this setting:

1. From the HYPACK Shell click HYSWEEP -> HYSWEEP Editor
2. In the MBMAX64 window that appears, click View -> View Color Settings.
3. In the Color Settings window that appears, under Soundings, click the Color By drop down menu to select Priority.

This update was developed to support mapping through fluid mud using dual frequency NORBIT WINGHEAD i87S multibeam, which collects high (440 kHz) and low (50-80 kHz) frequency data simultaneously. For more information, refer to [Changes to Support Full Coverage Mapping Through Fluid Mud by Mike Kalmbach](#).

DREDGEPACK®

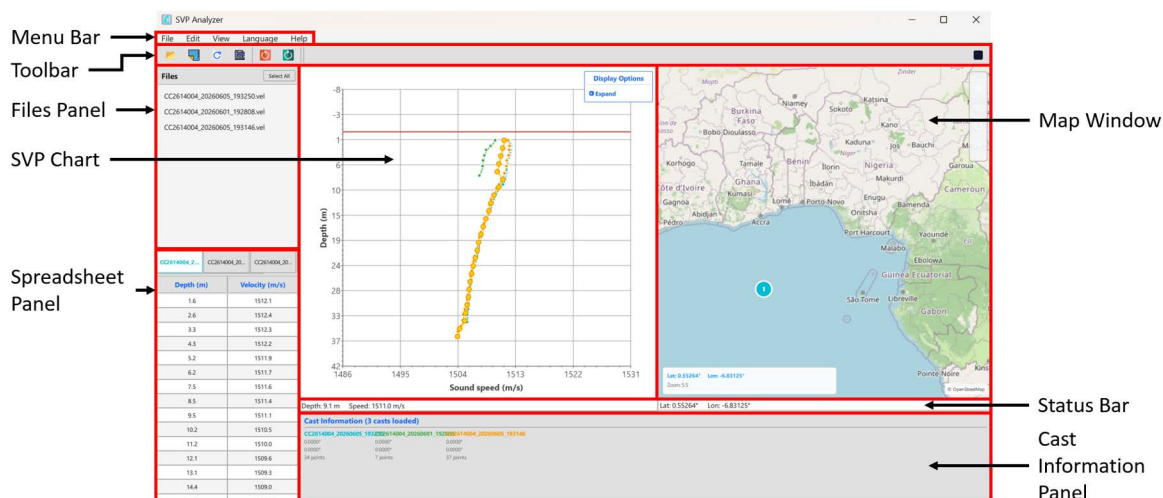
- The Dredge Monitor program is now automatically displayed and centered on the remaining screen when the external monitor the program was displayed on is removed. This fixes a previous issue where the Dredge Monitor program placed on an external monitor no longer appears when the external monitor is unplugged. For more information, refer to the [DREDGEPACK® Monitor Program Manual](#).

PROCESSING DATA

NEW FEATURE: SVP ANALYZER

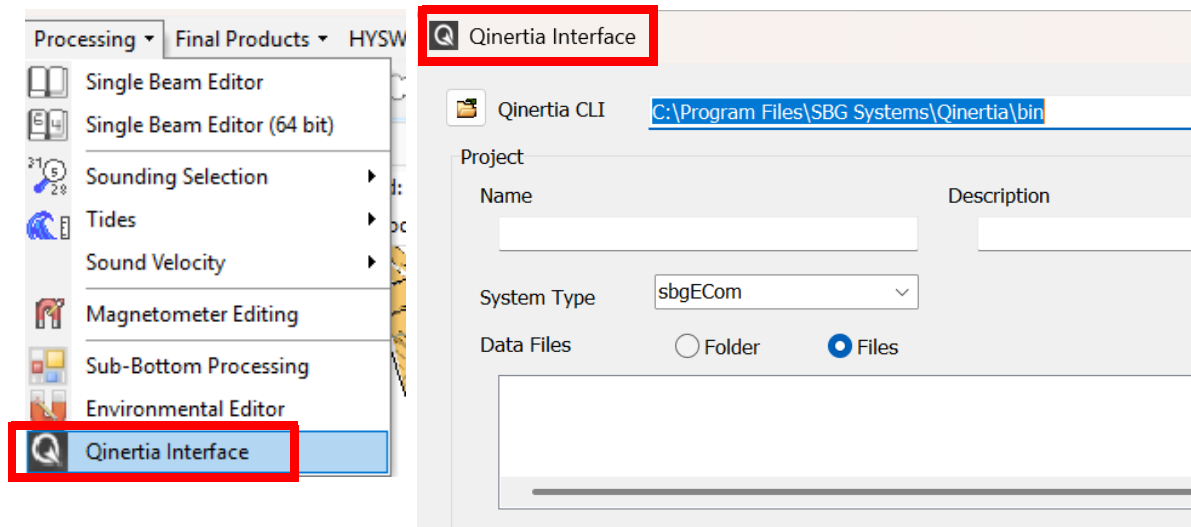
- The HYPACK 2026 Q2 release includes the SVP Analyzer, a new application designed to streamline the entire SVP workflow from collection to export. Instead of switching between manufacturer-specific software packages, you can import, review, edit, compare, and export all your casts from one application. Within the application, easily visualize cast location and edits, automatically create average profiles, and quickly edit and filter casts. The SVP Analyzer supports sound velocity profilers from AML, Valeport, CastAway, or a combination of systems. This new application is opened via Processing → Sound Velocity → SVP Analyzer.

For more information on features, refer to the article "Introducing SVP Analyzer: Streamlining Sound Velocity Profile Management for Hydrographic Surveyors" by Jerry Knisley. Looking to get started? Learn about how to use the SVP Analyzer with "Sound Velocity Profile (SVP) Analyzer - Manual" by Caroline Liu.



QINERTIA INTERFACE

- Qinertia Processor window now changed to Qinertia Interface.



- **Bug fix:** When users select a processing mode that doesn't require a base station input (ex: GNSS PPP, INS Auto, INS PPP, and INS Loosely), the Qinertia Interface no longer returns a "base station name not found" error.

UTILITIES

NEW FEATURE: FILE VERIFICATION TOOL.

- The new **File Verification Tool** reads the checksum from *.raw and *.hsx files to determine if somebody modified them. Open the HYPACK File Verification Tool from Utilities -> File Work -> File Verification. Click [Browse] and select the files you need to determine if any modifications have been made. Click [Verify All]. In the following example image, you will notice that one file is verified (status = OK), one has been modified (status = Checksum mismatch - file modified), and one is a file from an older version of HYPACK

(status = No checksum found). Note all RAW and HSX files created with older HYPACK software versions will have the status No checksum found.

