NORBIT

Software Release Notes

May 2024

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1 WINGHEAD Releases

1.1 NORBIT GUI 10.5.4

Release Date: April 22, 2024

New Features

- Support for Applanix Firmware v11.50.
- Support for Trimble RTX corrections with Applanix GNSS/INS.
- Support for Applanix IMU90 and IMU94 added.

Bug Fixes & Improvements

- Fixed issues with changing gate modes.
- Low-level bug fixes and stability enhancements.

1.2 NORBIT GUI 10.5.3

Release Date: January 17, 2024

New Features

- Support for iWBMSh Stabilised.
- Support for WINGHEAD F11 Deep Sea.
- Support for Applanix AP+ generation.
- New WINGHEAD simulator added.
- Start/stop pinging through Websocket interface enabled.
- Restart button added to INS Tools to reset Kalman Filter.
- Datum selector added for Export to gridDB dialog in Playback mode.
- Absorption calculator implemented for backscatter corrections.
- Define water column recording frame rate (controlled via .ini file)
- Network UDP input method implemented for TSS1 and EM3000 (for roll/pitch/yaw stabilisation)
- Added option to define separate log folder for s7k files.
- Configurable s7k file splitting (default 5GB).
- Batch WBM to s7k converter implemented.

Bug Fixes & Improvements

- Indicate the saturation of snippets and sidescan when recording to s7k file.
- Hide STX controls when not scanning.
- Refined Multidetect controls over WH API.
- Fixed issue with STX license files.
- All constellations are displayed on the GNSS sky plot for integrated systems.
- GUI displays alert message when two network cards are configured with the same subnet.
- Dual Swath 1024 has been renamed Dual Swath 2048 in the Beam Distribution setting.
- GUI attempts to reconnect to the sonar continuously if the connection is lost.
- Minor bug fixes for dual head operation.
- Many low-level bug fixes and stability enhancements.

1.3 NORBIT GUI 10.5.0

Release Date: April 4, 2023

New Features

- Dual Swath (2048 Beams) for WINGHEAD S series models *(license controlled)*
- Yaw Stabilization for WINGHEAD S series models *(license controlled)*
- STX scanning for WINGHEAD S series models *(license controlled)*
- Backscattering Output Strength (BSO) *(license controlled)*
- Support for Applanix firmware version 11.2.

- Support for WINGHEAD B44, B57S and i87S.
- Support for NORdredge and rotator.
- Firmware updates executed through the GUI (except for S series models).
- EM3000 external motion input for roll/pitch/yaw stabilization.
- Support for detached sound velocity probe - SVPd.
- Snippets backscatter display option.
- Backup INS data to internal storage.

Bug Fixes & Improvements

- Pitch stabilization performance improvements.
- Firmware updates through the sonar web UI shows clearer guidance.
- Backscatter data quality improvements when using dual swath or yaw stabilization.
- Timing diagnostics are displayed in the sonar web UI.
- Data types subscribed to from external software is always displayed in the GUI.
- When the sonar is in air, the SV probe status is correctly reported as “In air” instead of “No probe”.
- S7k files recorded through the GUI are automatically split into 1GB files.
- Improved handling of TSS1 external motion input for roll/pitch stabilization.
- Increased maximum swath angle for WINGHEAD i80S to 210°.
- Pulse amplitude is disabled when the “Auto” option is enabled under Tx Pulse Settings.
- Simplified controls for water column and backscatter visualization.
- A warning is displayed in the GUI when the upper gate is set to less than 1 metre.
- A warning is displayed in the GUI when the pulse mode is changed to CW.
- S7k server port is remembered when the GUI is closed.
- Uncertainty values are output as normalized values rather than absolute.
- The GUI contains a link to the user manual.
- Many low-level bug fixes and stability enhancements.

2 WBMS SW Releases

2.1 WBMS GUI 11.3.2

Release Date: April 22, 2024

New Features

- Support for Trimble RTX corrections with Applanix GNSS/INS.
- Support for Applanix AP+ generation.
- Support for Applanix Firmware v11.50.
- Support for SBG Firmware v5.1.149, which contains heave improvements.
- GUI checks for network configuration conflicts upon startup.
- Batch WBM to s7k converter implemented.
- Start/stop pinging through Websocket interface enabled.
- Network UDP input method implemented for TSS1 and EM3000 (for roll/pitch/yaw stabilisation)
- Absorption calculator implemented.
- Support for Applanix IMU90 and IMU94 added.

Bug Fixes & Improvements

- All constellations are displayed on the GNSS sky plot for integrated systems.
- Dual head wedge overlap control added.
- Default draft is now 1m in the factorywbms_gui.ini
- Hide STX controls when STX scanning is disabled.
- Navigation Accuracy is recorded to WBM file.
- Start Simulator button removed from GUI by default.
- Fixed Ethernet RTK INS Setup when NTRIP Client is connected.
- Stability and usability enhancements implemented for Linux version.
- Many low-level bug fixes and stability enhancements.

2.2 WBMS GUI 11.3.0

Release Date: April 4, 2023

New Features

- 1024 High Density Soundings (HDS) *(license controlled)*
- Backscattering Output Strength (BSO) *(license controlled)*
- Support for Applanix firmware 11.2.
- Support for WBMS STX Deepsea models.
- Support for latest revision WBMS Long Range (200kHz) models.
- FM Extended Range option for supported hardware models.

Bug Fixes & Improvements

- IMU mounting angles and offsets were incorrect when switching from a Custom INS setup.
- When the sonar is in air, the SV probe status is correctly reported as “In air” instead of “No probe”.
- S7k files recorded through the GUI are automatically split into 1GB files.
- S7k server port is remembered when the GUI is closed.
- Uncertainty values are output as normalized values rather than absolute.
- The GUI contains a link to the user manual.
- Various stability improvements and bug fixes for dual head operation.
- Many low-level bug fixes and stability enhancements.