



## *FGPS Limited*

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### SeisPos Release Notes

Refer to the [user manual](#) for details of new features.

Date: 10/11/2022

Version: 23.55

No.	Module	Description
1	Precon	Bugfix: Was resetting saved streamer rotation, stretch and feather results.

Date: 02/11/2022

Version: 23.54

No.	Module	Description
1	Network Adjust	Bugfix: Some gun nodes not being solved when bad GPS data.



Date: 25/10/2022

Version: 23.53

No.	Module	Description
1	Network Adjust	Bugfix: adjustment failing when not all available gyros used.

Date: 27/09/2022

Version: 23.52

No.	Module	Description
1	Network Adjust	Bugfix: handling tripoint with RGPS.

Date: 27/09/2022

Version: 23.51

No.	Module	Description
1	Reports	streamer depth plots now only use depths on active streamer.
2	Reports	Auto-configured vessel plots now include crab.
3	Network Adjust	Bugfix: gun array handling when using DGPS/RGPS combination for dynamic offsets.



Date: 27/07/2022

Version: 23.50

No.	Module	Description
1	Reports	Use custom name for column in CSV file if modified in GUI.

Date: 27/07/2022

Version: 23.49

No.	Module	Description
1	Reports	Vessel plots now take data from one shot before FGSP if available.

Date: 14/07/2022

Version: 23.48

No.	Module	Description
1	Output	Add option to write SPS supplemental C records.



Date: 20/06/2022

Version: 23.47

No.	Module	Description
1	Database	Add object ID to default node attributes.
2	Database - Extract Acoustic Data	Transponder ID now taken from all digits at end of node name.

Date: 28/05/2022

Version: 23.46

No.	Module	Description
1	Report Plots	Bugfix: network observations with angular units were not being unwrapped.



Date: 19/05/2022

Version: 23.45

No.	Module	Description
1	Input	Added project option to use gun serial number when creating gun node name (P211 only);
2	Output	Don't reset P190 record lists when changing specified IDs.
3	Output	Corrected IDs in spare cols when node name cols not specified.
4	Output	For P1/90, col 19 is now optional when using spare cols 14-16.

Date: 13/05/2022

Version: 23.44

No.	Module	Description
1	Precon	Improved matching of dither obs to shot time (delta now 1s).
2	Output	Corrections to preplot line name handling.
3	Output	In P190, gun/NFH and gun depth ids can now be manually determined from the name if written to spare columns.
4	Output	In P190, hires timestamp was sometimes missing.



Date: 11/05/2022

Version: 23.43

No.	Module	Description
1	Input / Output	Preplot line name now read from P2/11 input and written to P1/11 output.
2	Output	Extended SPS: Improved handling of dither values.
3	Output	Extended SPS: Use azimuth from waypoints for source repeatability.
4	Output	Extended SPS: Use separate alongline/crossline tolerances for source repeatability when not radial.

Date: 09/05/2022

Version: 23.42

No.	Module	Description
1	Output	Extended SPS: Added checkboxes to make all warnings and edits optional; GUI improvements.
2	Output	Select new parameter set for output after executing "Save As".



Date: 07/05/2022

Version: 23.41

No.	Module	Description
1	Input	Bugfix: For P2/11 echosounder obs scale was being set from propagation speed - should be 1.

Date: 06/05/2022

Version: 23.40

No.	Module	Description
1	Output	Extended SPS: Added shot year and dither, and option to use average for gun depth and gun pressure.
2	QC / Reports	Corrected gun depths for CO/scale/speed.



Date: 29/04/2022

Version: 23.39

No.	Module	Description
1	Utilities	New utility to concatenate P2 files.
2	General	Can now read year as two digits when importing external data (e.g. tide file).
3	Online Services	Multiple databases or P2 files can now be selected for compression. Each can now also be automatically uploaded as soon as they are compressed.
4	QC	Added depths to gun array plots.
5	Report plots	Added depths to gun array plots.

Date: 10/03/2022

Version: 23.38

No.	Module	Description
1	Network Adjust	Improved handling and reporting of bad Lat/Lon data.
2	Network Adjust	Can now zoom dynamic plots using mouse wheel + <Shift> and/or <Ctrl> keys.





Date: 18/02/2022

Version: 23.37

No.	Module	Description
1	Network Adjust	Minor bug fixes.

Date: 10/02/2022

Version: 23.36

No.	Module	Description
1	Network Adjust	Bugfix: unsolved shots when no data for sub-array comparison nodes.

Date: 28/01/2022

Version: 23.35

No.	Module	Description
1	Precondition	Bugfix: GPS processed data was displayed as raw.
2	Network Adjust	Updates to saving/reading default derived observation SDs.
3	Online Services	Add project files *.dat and *.log to database archive.



Date: 21/01/2022

Version: 23.34

No.	Module	Description
1	Network Adjust	Streamer derived obs SDs can now be saved as defaults.
2	Bugfix	Use of Online Services zip function sometimes caused application to hang on exit.

Date: 12/01/2022

Version: 23.33

No.	Module	Description
1	Network Adjust	Bugfix: interpolation of angular data when line heading varying either side of north.



Date: 05/01/2022

Version: 23.32

No.	Module	Description
1	Precondition	Updated tab order for controls in parameter dialog.
2	Network Adjust	SP increment now saved to parameter file.
3	Network Adjust	Lower limit of derived obs SDs revised to 0.0001.
4	Output	Bugfix: SPS new year JD reset option not working for hi-res.

Date: 24/12/2021

Version: 23.31

No.	Module	Description
1	Precondition	Now handles floating point interpolation and extrapolation parameters.
2	Network Adjust	SP interval can now be specified, skipped shots interpolated.
3	QC	Improved obs data handling to prevent out of memory errors in large datasets.



Date: 17/12/2021

Version: 23.30

No.	Module	Description
1	Output	Improved P111 'R' record handling in very large output files.
2	Output	Improved derivation of streamer num for P190.
3	Final report	Apply derived obs SDs if available.

Date: 13/12/2021

Version: 23.29

No.	Module	Description
1	Database	Bugfix: default obs use status was still loaded when not flagged to be loaded.
2	Network Adjust	Bugfix: Prevent derived obs SD from being 0.
3	Output	Corrected sorting of NFH records.



Date: 03/12/2021

Version: 23.28

No.	Module	Description
1	Precondition	Bugfix: Sometimes crashed with P cable datasets.
2	Output	Bugfix: Added checks to handled mismatch between streamer and streamer section definitions.
3	Utilities - Extract	Respect GPS setting when processing P211 files.

Date: 29/11/2021

Version: 23.27

No.	Module	Description
1	Import	Bugfix: Sometimes crashed when generating report with automatic workflow.

Date: 18/11/2021

Version: 23.26

No.	Module	Description
1	Network Adjust	Disallow nodes not in network to be used for P cable catenary.
2	Network Adjust	Added parameter page for P Cable catenary. See user manual section 9.9.7.



Date: 12/10/2021

Version: 23.25

No.	Module	Description
1	Internal	

Date: 07/10/2021

Version: 23.24

No.	Module	Description
1	P2/11 Input	Try to decode timestamps even if the OBJREF used to find the TRS appears to be wrong.
2	Network Adjust	Now weights P cable catenary node observation SDs according to distance from nearest end of cross cable.
3	Output	NFH and gun depth sensor P1/11 coordinate 3 is now written as object depth below sea level.



Date: 04/10/2021

Version: 23.23

No.	Module	Description
1	No functional change	Updated release notes for version 23.22.

Date: 01/10/2021

Version: 23.22

No.	Module	Description
1	Input	Temporary patch for Triggerfish acquisition system - source fired events now created from general events using the "Preplot Line Reference Number" field as the source id.
2	Network Adjust	Revised derived range obs SDs for P Cable compass.
3	Output	Now continues output skipping unsolved shots and issues warning.
4	Output	Added new options for writing extended SPS fields.
5	Reports	Streamer depth plots were not being updated.
6	Reports	Corrected calculation of vessel speed with short shot intervals.



Date: 22/09/2021

Version: 23.21

No.	Module	Description
1	Precondition, Network Adjust	Bugfix: incorrect handling of P cable for streamer QC plots.

Date: 21/09/2021

Version: 23.20

No.	Module	Description
1	Network Adjust	Revised assignment of P Cable streamer derived range observations.

Date: 20/09/2021

Version: 23.19

No.	Module	Description
1	Network Adjust	Bugfix: error when solve rotation checked for network with no tailbuoys.
2	Reports	Deprecated auto plot configuration for sub-array separations (use gun-arrays auto config).





Date: 19/09/2021

Version: 23.18

No.	Module	Description
1	Output	Bugfix: gun depth sensor depth in P1/90 was being corrected for sensor Z offset.

Date: 17/09/2021

Version: 23.17

No.	Module	Description
1	Input	Timestamp obs can now be used with Unix timestamps.
2	Input	Perform Triggerfish P Cable modifications after input.

Date: 11/09/2021

Version: 23.16

No.	Module	Description
1	Input	Added checks for proximity of SVP and magnetic variation data.
2	Network Adjust	Bugfix: bug computing streamer heading when only one streamer node.



Date: 03/09/2021

Version: 23.15

No.	Module	Description
1	Input / Reports	Improved source sequence checking.
2	Reports	Moved node/obs options to main report window.
3	Reports	Time increment exceptions now optional in shot report.
4	Convert Coordinates	Bugfix: Occasionally failed to compute.

Date: 24/08/2021

Version: 23.14

No.	Module	Description
1	Network Adjust	Bugfix: array component nodes SMA was not saved when Exclude Co-located Nodes option enabled.
2	Output P111	Gun nodes now always output gun depth.



Date: 23/08/2021

Version: 23.13

No.	Module	Description
1	Project dialog	Regression: Project name was disabled when editing new project.

Date: 23/08/2021

Version: 23.12

No.	Module	Description
1	Line List	Added update button, this has the same functionality as the same button in the project edit dialog.
2	Database	Bugfix: Creation of sub-array separations nodes for P2/11 was failing for long node names.
3	Output P111	NFH and Gun nodes now output water depth if "record position" selected in bathy.
4	Output P111	NFH nodes now output as type "Near Field Hydrophone".

Date: 19/08/2021

Version: 23.11

No.	Module	Description
1	Output	Bugfix: Z offset was not being added when depth sensor was less than 2m from gun.



Date: 18/08/2021

Version: 23.10

No.	Module	Description
1	Input	Bugfix: was issuing irrelevant warnings for hires timestamp obs.

Date: 18/08/2021

Version: 23.09

No.	Module	Description
1	Input	Regression: "GPS Time" obs should not be regarded as a hires timestamp obs.
2	Output	Bugfix: Streamer depth nodes were assigned record type "Gun Depthsensor".
3	Output	Bugfix: For P1/11 gun depth sensor nodes were outputting gun depth instead of the actual sensor value.
4	Output	Improved handling of gun depths for clusters.



Date: 13/08/2021

Version: 23.08

No.	Module	Description
1	Input	Timestamp obs with relative time format can now be detected from obs name "Shottime-UTC".
2	Database	Added new observation type "UTC Seconds ref 1980-01-06", used for microsecond time stamp.
3	Output	Hires timestamp can now be taken from obs with relative time format.
4	Output	Source id now shown in records list for gun/nfh and gun depth nodes.

Date: 11/08/2021

Version: 23.07

No.	Module	Description
1	Precondition	Improved angular observation value unwrapping.
2	Report Plots	Bugfix: occasional misreading of configuration file.



Date: 02/08/2021

Version: 23.06

No.	Module	Description
1	Input	Bugfix: Applying RGPS range/bearing SDs at input causing occasional FP error.
2	Network Adjust	Bugfix: some nodes not in network were being plotted.

Date: 01/08/2021

Version: 23.05

No.	Module	Description
1	Database	Display original line after loading all defaults.



Date: 29/07/2021

Version: 23.04

No.	Module	Description
1	Output	Improved recognition of ID for node type GUN.
2	Output	Writing of IDs to spare columns in P1/90 now optional.
3	Output	T records related to source now have P1/90 source ID field populated.
4	Output	T record IDs now written to spare columns in P1/90 (optional).

Date: 28/04/2021

Version: 23.03

No.	Module	Description
1	Output	Enable output of gun depth sensors.
2	Output	For P1/90, updates for guns, NFH and gun depth sensors. See user manual section 11.3.1.1.



Date: 16/07/2021

Version: 23.02

No.	Module	Description
1	Database	Load All Defaults can now be applied to all existing database lines. Refer to section 5.2 if the user manual.
2	Database	Save All Defaults now allows selection of tables to save as defaults.
3	Network Adjust	Bugfix: was not handling streamers with just one compass.
4	Network Adjust	Added support for P cable catenary modeling (acquisition type PCable Catenary).

Date: 26/05/2021

Version: 23.01

No.	Module	Description
1	Input	Improved EPSG and format checks.
2	Output P111	Object attribute records now filtered to match object summaries.





Date: 12/05/2021

Version: 23.00

No.	Module	Description
1	All	New node type OBN RECEIVER, for OBN nodes.
2	Database	Short name added to node table.
3	Output	Handle ouput of SPS R records for OBN Receivers.

Date: 05/05/2021

Version: 22.99

No.	Module	Description
1	All	Log times now use 24hr clock.
2	Network Adjust	Bugfix: Spikes in external reliabilty in sparse networks.
3	Network Adjust	Use short names for derived obs when necessary for report format.
4	Reports	Final report does not report on nodes not solved in the last adjustment.
5	Reports	Bugfix: Spurious artifact shown on active source plots.



Date: 14/04/2021

Version: 22.98

No.	Module	Description
1	Input	Bugfix: Manual comparison nodes and obs were being duplicated when also loading default nodes and obs.
2	Database	Bugfix: Pasting an arithmetical operation was not working with decimal values.

Date: 09/04/2021

Version: 22.97

No.	Module	Description
1	Database	Detect existing sub-array separation nodes and obs before creating.



Date: 30/03/2021

Version: 22.96

No.	Module	Description
1	Project, Database	New option to assign NFH node types.
2	Database	Round speed of sound profile data to 3dp.
3	Output	NFH records now sorted by ID.
4	Output	Bugfix: NFH record IDs incorrectly displayed in record list.

Date: 26/03/2021

Version: 22.95

No.	Module	Description
1	Database	Added utility to set RGPS SDs.
2	Database	Bugfix calculating bearing SDs.



Date: 25/03/2021

Version: 22.94

No.	Module	Description
1	Project	New option to set RGPS SDs, range specified, bearing calculated from range.
2	Input	Improved warning messages.

Date: 23/03/2021

Version: 22.93

No.	Module	Description
1	Report Plots	Bugfix: Improved file handling for precon reports with active source.

Date: 23/03/2021

Version: 22.92

No.	Module	Description
1	Database	Sub-array separation nodes and observations no longer include acoustics.
2	Reports	Bugfix: plots for active source were not clearly displayed.



Date: 09/03/2021

Version: 22.91

No.	Module	Description
1	Database	Loading observation defaults now matches observations based on non-variable parameters.
2	Reports	Bugfix for recent regression: sometimes crashed when creating plots.

Date: 25/02/2021

Version: 22.90

No.	Module	Description
1	Output	Corrected handling of Northings > 10,000,000.



Date: 24/02/2021

Version: 22.89

No.	Module	Description
1	Input	Suppressed duplicate EPSG warnings.
2	Input	Suppressed error message about focus when EPSG differences found.
3	Database	Ensured EPSG integrity status updated after reload from ref DB.
4	Output	Same report file now used for multiple outputs within a line.

Date: 19/02/2021

Version: 22.88

No.	Module	Description
1	IMPORTANT UPDATE	EPSG processing has been updated to handle the data model changes in version 10 and later. It is recommended that you download and install the latest EPSG database from the FGPS website.
2	Input	P294 reader can now handle up to 10000 USBL obs.
3	Multiplot	Removed misleading overlay key caption.
4	Output	Draft corrections now saved to 2dp.
5	Output	Revised comment records for draft corrections.



Date: 21/01/2021

Version: 22.87

No.	Module	Description
1	Reports	Bugfix: occasional error when auto-creating gyro comparison plots.
2	Reports	Bugfix: sometimes crashed when processing reports for very large datasets.

Date: 07/01/2021

Version: 22.86

No.	Module	Description
1	Output	Limit NFH ids to 2 digits for P190.

Date: 04/01/2021

Version: 22.85

No.	Module	Description
1	Network Adust	Bugfix: gun string azimuth was undetermined when not using GPS for array azimuth.



Date: 31/12/2020

Version: 22.84

No.	Module	Description
1	Network Adjust	Correction to W-test critical value for 99.9% probability.

Date: 22/12/2020

Version: 22.83

No.	Module	Description
1	Multiplot	Bugfix: Sometimes crashed when closing plot form.

Date: 20/12/2020

Version: 22.82

No.	Module	Description
1	Multiplot	Bugfix: Regression in handling of plot series and scale.





Date: 19/12/2020

Version: 22.81

No.	Module	Description
1	Output	Bugfix: NFH node Z offsets were not being accounted for when computing depths.

Date: 18/12/2020

Version: 22.80

No.	Module	Description
1	Output	For SPS, added option to reset JD at year end: OFF by default.
2	Output	In P111, NFH node short names now match the numbering in the original node name.
3	Output	In P111, NFH node P1 records now contain the depth.
4	Output	Bugfix: Could not load CSV file for tidal data.
5	Multiplot	Bugfix: Plot attributes such as overlays sometimes did not reload on reopening the plots.



Date: 09/12/2020

Version: 22.79

No.	Module	Description
1	Database	Bugfix: was not correctly assigning auto-created sub-array separation nodes with X offsets different to string centre.

Date: 07/12/2020

Version: 22.78

No.	Module	Description
1	Input	Bugfix: Sometimes created invalid extra transformation when reading H0130 records.

Date: 30/11/2020

Version: 22.77

No.	Module	Description
1	Input	Bugfix: Sometimes crashed when no H00@8 record found in P294.



Date: 02/11/2020

Version: 22.76

No.	Module	Description
1	Input	New project option to automatically assign incremental gun depth sensor IDs.

Date: 17/09/2020

Version: 22.75

No.	Module	Description
1	Reports	Bugfix: Sometimes crashed when generating reports during automatic processing.

Date: 15/09/2020

Version: 22.74

No.	Module	Description
1	Input	Node names can now be longer (and some other names). NOTE: due to possible changes in node names it is recommended to start a new project after installing this version.
2	Output	Bugfix: Corrected record ids when P1/90 output from a P2/11 input.



Date: 11/09/2020

Version: 22.73

No.	Module	Description
1	Input	Echosounder obs name allows for more characters.
2	Precondition	Bugfix: crash when importing external data.
3	Network Display	Improved X axis label layout for printing.
4	Reports	Bugfix: User report editor was not opening.

Date: 20/08/2020

Version: 22.72

No.	Module	Description
1	Network Adjust	Bugfix: FSP array orientation not correctly computed when no RGPS pairs available.
2	Network Adjust, Output	Nodes with multi-reference nodes now computed as average of reference nodes' positions.
3	Output	Improved handling of nodes with multiple reference nodes.
4	Output	Bugfix: P111 file did not contain HC,2,3,0 records for gun string nodes.



Date: 22/07/2020

Version: 22.71

No.	Module	Description
1	Output	Bugfix: Depth coordinates sometimes not output when running with multiple parameter sets.
2	Output	Improved logging.

Date: 22/06/2020

Version: 22.70

No.	Module	Description
1	Output	Now writes transducer depth correction comments when no date given.
2	Online services	Now uses SFTP for file uploads.

Date: 12/05/2020

Version: 22.69

No.	Module	Description
1	Output	Bugfix: Corrected P190 grid coordinates when forcing grid units to centimetres and output CRS is different to survey CRS.



Date: 11/05/2020

Version: 22.68

No.	Module	Description
1	Output	Bugfix: Corrected P190 rx coordinates when forcing grid units to centimetres.

Date: 07/05/2020

Version: 22.67

No.	Module	Description
1	General	Bugfix: OK/Cancel buttons were hidden on some popup prompts.

Date: 20/04/2020

Version: 22.66

No.	Module	Description
1	Project	Now supports acquisition systems DOLPHIN OBS SOURCE and DOLPHIN OBS RECEIVER.
2	Output	Corrected value of scale factor in ppm when outputting 7-param rotation vals in H2600 records.
3	Report Plots	New feature to separate shot event data according to source fired.



Date: 18/03/2020

Version: 22.65

No.	Module	Description
1	Output	Only generate header record for buoy/NFH nodes if the node record will be output.
2	Output	When GAM selected for output an H0105 record will also be created in the header.
3	Output	SPS line name now adheres to "use x rightmost characters from line name" option.
4	Report	Bugfix: User options for PDF/CSV output were being ignored.



Date: 17/03/2020

Version: 22.64

No.	Module	Description
1	P2/11 Input	Corrected decoding of vessel ref for T2,3,3,0 records for cases where the given source OBJREF was not directly towed by the vessel.
2	Database	Removed utility to perform P cable modifications - this must be done during P2 input.
3	Compass Bias Estimate	Revised default values.
4	Network Adjust	Acoustic obs SDs are now displayed and entered in milliseconds.
5	Network Adjust	Exclude colocated nodes is unchecked by default for 2D datasets.
6	Output	Now allows user defined object type 37 "Air Gun Source" as firing and non-firing source.
7	Output	NFH Ids now written to P190 H0105 records.
8	Report, Plots	Improved formatting.

Date: 09/03/2020

Version: 22.63

No.	Module	Description
1	Input	Bugfix: incorrect application of gun-array offset from towpoint-in-sea.





Date: 09/03/2020

Version: 22.62

No.	Module	Description
1	Project line list	Bugfix: Line status were corrupted after changing FGSP/LGSP.
2	Input	Bugfix: was not using gun-array offset from towpoint-in-sea.
3	Database	Improved handling when no CRS found in the EPSG database.
4	Precondition	Bugfix: Edited parameters were not saved before saving parameter set.
5	Report, Plots	Bugfix: User defined plot name appeared in GUI only, now appears in plot.

Date: 25/02/2020

Version: 22.61

No.	Module	Description
1	Precondition	Revised default gates for P cable.
2	Network Adjust	Improvements made for P Cable processing.
3	Network Adjust	Bugfix: P cable rotation was not being written.
4	Reports	Bugfix: PDF output now correctly generated with High DPI screen settings.
5	Multiplot	Plots with overlays now marked as such in the plot title.



Date: 11/02/2020

Version: 22.60

No.	Module	Description
1	Output	Bugfix: Now handles more than 128 chars in export parameter file paths.

Date: 10/02/2020

Version: 22.59

No.	Module	Description
1	Input	Bugfix: Was sometimes erroneously reporting inconsistent central meridian for a UTM one.
2	Input	Bugfix: Corrected display of INPUT ABORTED message.
3	Output	User can now add custom header records which will be output verbatim.
4	Output	Added option to output SeisPos version and date when generating header from file.
5	Report, Trend Analysis	Bugfix: Summary files were not updated when plot modification type was changed.
6	Report, Stat Tests	All configured stat tests now run during automatic processing.



Date: 17/01/2020

Version: 22.58

No.	Module	Description
1	Line List	Improved performance when applying changes.
2	Plot Configuration	Added option to output PDF and/or CSV.
3	Report, Trend Analysis	Bugfix: Plot names for multi-series plots was not separated into the individual series.

Date: 03/01/2020

Version: 22.57

No.	Module	Description
1	Report, Plots	Improved handling of waypoints when every SP has a waypoint.
2	Report, Stat Testing	Bugfix: Various minor bugs.



Date: 29/12/2019

Version: 22.56

No.	Module	Description
1	Report Stat Testing	Bugfix: Was misreporting min/max value for vessel plots.
2	Network Adjust	Bugfix: Comparison nodes with no data sometimes with spurious coordinates.

Date: 24/12/2019

Version: 22.55

No.	Module	Description
1	Report, Stat Testing	New report module for statistical testing.

Date: 24/12/2019

Version: 22.54

No.	Module	Description
1		No change.



Date: 23/12/2019

Version: 22.53

No.	Module	Description
1	Output SPS	Apply user defined line name for multiple parameter sets if single line selected.

Date: 20/12/2019

Version: 22.52

No.	Module	Description
1	Network Adjust, QC, Report Plots	Now removes flip flop waypoints when calculating waypoint relative node movement.

Date: 20/12/2019

Version: 22.51

No.	Module	Description
1	QC, Report, Plot Config	Bugfix: crash when configuring Gunarray plots.



Date: 12/12/2019

Version: 22.50

No.	Module	Description
1	Network Adjust	Bugfix: Was using rejected observations.
2	Network Adjust	Bugfix: Was sometimes hanging when starting the module.

Date: 05/12/2019

Version: 22.49

No.	Module	Description
1	Input P294	Corrected obs data time handling around midnight.
2	Input P294	Corrected warnings for hires timestamps.
3	Database	Corrected display of obs data times from second day of line.



Date: 04/12/2019

Version: 22.48

No.	Module	Description
1	Input, Database, Network Adjust	Updates for USBL alignment corrections.
2	Input	Now maps user-defined USBL obs types to internal USBL obs types.
3	Input P294	Now creates all GPS QC obs by default after reading the satellite system definition.
4	Input	Improved handling for corrupted P2/11 records.
5	Database	Updated creation of 2D observations to handle P2/11.

Date: 25/11/2019

Version: 22.47

No.	Module	Description
1	Input	Improved handling of P2 files with incomplete headers.



Date: 22/11/2019

Version: 22.46

No.	Module	Description
1	Input	New option to create virtual shots for P2 files with no E1000, E2,1,0,0 or T2,3,3,# records.

Date: 21/11/2019

Version: 22.45

No.	Module	Description
1	Network Adjust	Updates to auto-configuration of ROV networks.

Date: 19/11/2019

Version: 22.44

No.	Module	Description
1	Automatic processing	Now includes final report if a configuration has been set up.
2	Network Adjust	updates to handle ROV vessels.
3	Output	Corrected fsp/lsp handling for single line output.
4	Output	Zipped output files now contain timestamp.





Date: 11/11/2019

Version: 22.43

No.	Module	Description
1	Project	Now allows loading of all defaults on every line even when inputting using interactive mode.
2	Output	Now allows multiple parameter sets to be output in one run.
3	Output	Now allows output files to be zipped (original output file will be removed after zipping).
4	Final Report	Corrected data range for precon plots when FGSP not same as FSP.

Date: 04/11/2019

Version: 22.42

No.	Module	Description
1	Output	Bugfix: Existing header comments were not being cleared when reading new ones from parms file.
2	TASTE Report Plots	Bugfix: FPD plots missing data.



Date: 01/11/2019

Version: 22.41

No.	Module	Description
1	TASTE Report Plots	Bugfix: Sometimes crashed when plotting, some plots missing data.
2	P2 Header Difference	Improved handling of zip files.
3	Report Plots	Corrected font colour for plots that show nominal.

Date: 30/10/2019

Version: 22.40

No.	Module	Description
1	Output	Added option "Output entire shot range" to override FGSP/LGSP from line. If in use, the project option "Always adjust entire shot range" should also be applied.
2	Output	GUI tidy, "other information" section now has popup menu.

Date: 28/10/2019

Version: 22.39

No.	Module	Description
1	Final Reports	Ensure correct configuration file extension used with "save as".



Date: 26/10/2019

Version: 22.38

No.	Module	Description
1	Network Adjust	Bugfix: some excluded node statistics were incorrectly reported.
2	Report Plots	New option to overlay plots.

Date: 20/10/2019

Version: 22.37

No.	Module	Description
1	Network Adjust	Bugfix: error is calculating dynamic gun-array derived observations for P2/11.



Date: 14/10/2019

Version: 22.36

No.	Module	Description
1	Reports	CSV file column headers now contain both names when outputting data for comparison plots.
2	Reports	CSV file data now output to 6dp.

Date: 09/10/2019

Version: 22.35

No.	Module	Description
1	Input	When format checking Px11 files, "invalid data" errors are now bundled together in the log.

Date: 09/10/2019

Version: 22.34

No.	Module	Description
1	Output	Added option to specify seismic datum value.
2	Reports	Bugfix: Precon shot event data sometimes not plotted.



Date: 03/10/2019

Version: 22.33

No.	Module	Description
1	Precondition	Bugfix: Corrected handling of GPS data when no waypoints available.
2	Network Adjust	Bugfix: corrected display of P cable derived observation attributes.

Date: 02/10/2019

Version: 22.32

No.	Module	Description
1	Precondition	Bugfix: Corrected handling of GPS data when no waypoints available.



Date: 30/09/2019

Version: 22.31

No.	Module	Description
1	Input	P2/86 streamer and source are now referenced to their respective towpoints.
2	Database	Bugfix: incorrect nominal for acoustic observations in ms.
3	Output	Bugfix: Corrected source depths.

Date: 26/09/2019

Version: 22.30

No.	Module	Description
1	Output	Bugfix: Corrected offsets and depth nominals.
2	Multiplot	Bugfix: Sometimes crashed when closing the plot window.
3	Precondition, Network Adjust	Network display orientation is now saved.



Date: 24/09/2019

Version: 22.29

No.	Module	Description
1	Project dialog	Bugfix: Available options did not always match the acquisition system.
2	Project	New options to specify streamer towpoint on vessel offsets for P2/11 datasets.
3	Database	Create 2D Nodes & Obs for P2/94 now uses only values from streamer and gun records to determine towpoint on vessel.
4	Report Plots	Added radial separations to Gun-array plots.

Date: 18/09/2019

Version: 22.28

No.	Module	Description
1	Database	Now applies fan tail width, if specified, when computing observation nominals.
2	Report Plots	Bugfix: first point in vessel distance plot was sometimes zero.



Date: 17/09/2019

Version: 22.27

No.	Module	Description
1	Application	Now allows automatic upgrades. The frequency of update checks can be set in the Tools / Options menu.
2	View P2	Bugfix: Now correctly handles zip files and files with no line endings.
3	Database	Handle nodes of slightly different X offsets when creating sub-array separation nodes.
4	Output	Save initial spaces when saving format string for tidal reduction data.

Date: 14/09/2019

Version: 22.26

No.	Module	Description
1	Network Adjust	Bugfix: recomputed NFH nodes were not being saved.





Date: 11/09/2019

Version: 22.25

No.	Module	Description
1	Project	Added project type Triggerfish OBS Source.
2	Input	Corrected handling of user defined object types for P2/11.
3	Network Adjust	Sub-array nodes (gun, NFH etc.) are now positioned relative to the sub-array. Sub-array azimuth is now independent of array azimuth when Dynamic Offsets option is used.
4	Output	Improved depth correction comments.
5	Output	Bugfix: Occasional corruption of R1 record timestamp for P1/11.



Date: 27/08/2019

Version: 22.24

No.	Module	Description
1	Precondition	Bugfix: depth obs nominal was the wrong sign.
2	Database	Bugfix: created duplicate observation type sometimes being corrupted.
3	Output	Can now use polynomial streamer shape for networks with no acoustics (2D).
4	Output	Bathymetric depth origin for OBS Source projects now defaults to centre of source.
5	Output	Bugfix: Echosounder depths now correctly taken from next in list when first has bad data.
6	Output	P111 S1 records now get water depth in extension field.



Date: 12/08/2019

Version: 22.23

No.	Module	Description
1	Main Menu	Added options to open project input and output folders.
2	Input	User defined observation types in P2/11 now applied in database.
3	Network Adjust	Bugfix: feather results for P cable projects not stored properly.
4	Network Adjust	Magnetic variation is now recorded for each shot.
5	Output	New option to specify the start record when reading tidal reductions from file.
6	Output	Depth data for non echosounder records is now specified by selecting the echosounder to use from the list on the bathymetric tab. If more than one echosounder is selected the depth data will be taken from the first one unless it has bad data for that shot in which case the next one will be used.
7	Output	Echosounder depths can now be adjusted for heave.



Date: 31/07/2019

Version: 22.22

No.	Module	Description
1	Input	EPSG defaults now automatically saved from first line in project.
2	Input	For subsequent lines, EPSG items now compared to defaults.
3	Network Adjust	Bugfix: access violation for P cable when nodes were rejected.
4	Output	For P1/11, line name can now be longer than 16 characters.
5	Output	Bugfix: Corrected addition of Z offset when outputting source depths.

Date: 30/07/2019

Version: 22.21

No.	Module	Description
1	Output	Bugfix: For P111, record type definitions are now updated when forcing WGS84 to CRS C.



Date: 29/07/2019

Version: 22.20

No.	Module	Description
1	Database / Output	Autocreated EPSG items now based on version 9.7.
2	Network Adjust	Values for computed magnetic variation are now available for plots and reports.
3	Output	Bugfix: Corrected handling of source output when shot number decrementing.
4	Output	For P111, allow forcing of WGS84 coords to CRS C.
5	Output	When outputting source depths, depth sensor Z offset now added to the depth value.

Date: 29/07/2019

Version: 22.19

No.	Module	Description
1	Network Adjust	Bugfix: error writing streamers to P1 for P cable projects.



Date: 27/07/2019

Version: 22.18

No.	Module	Description
1	Network Adjust	Bugfix: small error in computing average streamer heading for P cable projects.

Date: 26/07/2013

Version: 22.17

No.	Module	Description
1	Input	Include Seapronav OBS Source for mapping hi-res shot times from P2/11 extension field.
2	Network Adjust	Bugfix: P cable azimuth wrapped.

Date: 25/07/2019

Version: 22.16

No.	Module	Description
1	Network Adjust	Bugfix: occasional access violation computing compass coordinates for P cable acquisition.



Date: 23/07/2019

Version: 22.15

No.	Module	Description
1	Input	Bugfix: For SeaProNav acquisition system, corrected hires timestamp copy when there are a different number of general events to source fired events.

Date: 22/07/2019

Version: 22.14

No.	Module	Description
1	Input	For SeaProNav acquisition system, hires timestamp from general event now copied to source fired event.
2	Output	Bugfix: source depth was being written to NFH Z records when option checked to output source depth to Z records.
3	QC	Bugfix: Corrected crossline calculation when waypoints in opposite direction to actual shots.



Date: 18/07/2019

Version: 22.13

No.	Module	Description
1	Input	Now saves all fields in P211 HC,0,2,0 record, these can be edited in the "Header General" section of the database module.
2	Input	Now saves rx type definitions from the P211 HC,2,2,0 record, these can be edited in the "Header Receiver Type Definitions" section of the database module.
3	Input	Now saves description of local reference point field from the P211 HC,2,3,0 record, these can be edited in the "Header Nodes" section of the database module.
4	Input	For SeaProNav acquisition system, hires timestamp in extension field 102 is now accepted.
5	Database	spinc no longer affected when loading defaults for Header / General table.
6	Network Adjust	Bugfix: incorrect feather calculation for P2/11 acquired in reverse.
7	Output	For SeaProNav acquisition system, NFH ID now taken from cols 6 and 7 of the node name.
8	Output	P111 header now includes all fields in HC,0,2,0 record if available.
9	Output	P111 header now always includes description of local reference point in HC,2,3,0.
10	Output	P111 header now only includes units of measure that are actually used.
11	Output	P111 header now includes receiver type definitions from P2/11 input file if available.





Date: 11/07/2019

Version: 22.12

No.	Module	Description
1	Project	If "Create 2D Nodes and Obs" is switched on, the V1SC layback must also now be entered for P2/11.
2	Report Plots	Bugfix: Occasional crash when creating vessel plots.
3	QC	Bugfix: Occasional crash when creating vessel plots.

Date: 10/07/2019

Version: 22.11

No.	Module	Description
1	Multiplot window	Improved performance when plotting large number of values.
2	Precon	Bugfix: Rectify Negative Ranges function sometimes crashed.
3	Output	Record ID now given sequential number if otherwise not found.



Date: 30/05/2019

Version: 22.10

No.	Module	Description
1	Main	Added to Utilities Menu option to view P2 header.
2	Input	Bugfix: P2/11 user defined obs types could be repeated in database.
3	Precondition	Lat & lon obs summary now reported in degrees (was pseudo-metres).
4	Database	Bugfix: Sometimes crashed if loading default obs cancelled by user.
5	Compass Bias Estimate	Bugfix: was ignoring user specified SP range.
6	Network Adjust	Bugfix: was failing when gunarray plots enabled but no gunarrays in the configuration.
7	Multiplot	Improved search functions in plot list.

Date: 13/05/2019

Version: 22.09

No.	Module	Description
1	Output	Bugfix: Corrected handling of layback for depths at record positions for very small shot time intervals.



Date: 09/05/2019

Version: 22.08

No.	Module	Description
1	Input	P294 input can now handle more than one transformation to the same datum.
2	Output	Warning now given if hires timestamp is more than 0.1s different from actual shot time.
3	Report Plots	Added new auto plots for separations.
4	Online Services	Now has explicit support for zipping and uploading P2 files.

Date: 27/04/2019

Version: 22.07

No.	Module	Description
1	Reports	Bugfix: Corrected comparison plots when using hires timestamps.



Date: 26/04/2019

Version: 22.06

No.	Module	Description
1	Output	Improved handling of shots with same timestamp.
2	Reports	Shot report now split into separate summary and exception reports.
3	Reports	Improved vessel speed and CMG calculations to take into account quasi-simultaneous shooting.
4	QC	Improved vessel speed and CMG calculations to take into account quasi-simultaneous shooting.

Date: 20/04/2019

Version: 22.05

No.	Module	Description
1	Precondition	Improved observation group assignments.
2	Output	File header now created anyway if append option used but no existing file to append to.
3	Output	Bugfix: was outputting incorrect SPS point depth.



Date: 21/03/2019

Version: 22.04

No.	Module	Description
1	Output	Corrected source id for NFH nodes.
2	Support	Corrected handling of line status file for zip uploads.

Date: 20/03/2019

Version: 22.03

No.	Module	Description
1	Output	For P1/90, added option to output grid coordinates in centimetres.

Date: 19/03/2019

Version: 22.02

No.	Module	Description
1	Input	Improved error message when shot increment does not match that given in the H00@8 record.
2	Precon	No longer deletes duplicate time samples for hires timestamp observations.
3	Output	Improved handling of hires timestamps very close together.



Date: 04/03/2019

Version: 22.01

No.	Module	Description
1	Network Adjust	Bugfix: error computing P cable polynomial model.
2	Database	Improved recognition of NAD27 datum defined in P2/94.
3	Database	For P294 NAD27 to WGS-84 transformation single NADCON transformation is assigned.

Date: 02/03/2019

Version: 22.00

No.	Module	Description
1	Network Adjust	Bugfix: was not handling P cable arcing through 0° azimuth.



Date: 01/03/2019

Version: 21.99

No.	Module	Description
1	Database	Now prompts to delete TIME STAMP samples when records are deleted from General Event or Source Fired Event table.
2	Precondition	DSD test now uses rate of change for latitude and longitude observations.
3	Output	Bugfix, was not recognising tide data format specifier for Month ('M').
4	Output	Now handles 2 digit year for tide data format.
5	Output	Added P111 option to use gun depth data in source records.
6	Output	Added P111 option to specify NDP for grid coords.



Date: 01/02/2019

Version: 21.98

No.	Module	Description
1	Project	Create subarray separation nodes is now enabled by default.
2	Precondition	Improved observation group assignments.
3	Precondition	Bugfix: Apply scale to group was not working properly.
4	Network Adjust	Bugfix: was creating gun strings for virtual nodes.
5	Output	Now supports day month year format (dMy) in tide file.
6	Output	Added option to add tide value instead of subtracting.
7	Report	Performance improvement for datasets with waypoints defined for each shot.

Date: 19/01/2019

Version: 21.97

No.	Module	Description
1	Network Adjust	Now interpolates NFH coordinates when Compute Gun Coordinates option is enabled.
2	Output	For P111, source records now get water depth in additional field if bathy origin at record position.