

## Feature Matrix - SonarTRX Sidescan sonar processing software (Version 23.1 - February 2023)

<b>SonarTRX product version and general information:</b>	<b>Pro</b>
Availability of 32 bit and 64 bit versions (x86/x64):	<b>x64</b>
<b>Import-features and supported sidescan sonar file formats</b>	
Humminbird Side-Imaging (SI) sonar recordings (*.dat, w/associated *.son)	Yes
Lowrance StructureScan recordings (*.sl2, *.sl3 and *.slg)	Yes
Garmin SideVu, DownVu/ClearVu recordings (*.rsd)	Yes
Extended Triton Format (*.xtf) w/coordinates in Geodetic or UTM	Yes
Imagenex SportScan (*.81s) and YellowFin (*.872) recordings	Yes
DeepVision DeepEye (*.dvs and *.dvh)	Yes
EdgeTech sonar recordings (*.jsf) See Note 8	Yes
Import portions of a file, by time or named "clips". See Note 1	Yes
Import select sonar channels (speeds up import for some sonar files)	Yes
Correction of sonar data on import (Individual, or all channels)	Yes
<b>Viewing, editing and correction functionality</b>	
View individual sonar channels in horizontal or vertical waterfall mode	Yes
Corrections of trackline - load alternate positions, altitudes etc. - See Note 10	<b>PlusPack v2A</b>
Birds eye view of navigation track and tools to define "clips" and "targets"	Yes
Define time-intervals, or regions ("Clips") within recording.	Yes
Define points of interest ("Targets") representing a specific feature	Yes
Calculation of first echo return from sonar data w/tool to digitize bottom	Yes
Slant range correction of sidescan channels, including beam angle correction	Yes
Brightness and contrast adjustment for individual channels w/histograms	Yes
Tool for display of the height of a feature, based on the acoustic shadow	Yes
<b>Export of Bathymetric data and raw sonar ping data</b>	
Export depth, as estimated by sonar, at 2 second interval - See Note 9	Yes
Export detailed depth-along-track, for specific channel & interval - See Note 10	<b>PlusPack v2A</b>
<b>Output of sonar images and associated KML document</b>	
Creation of KML document compatible with Google Earth Pro for desktop	Yes
- Sidescan / Downscan image-tiles and Master Image (all-in-one image)	Yes
- Sonar trackline and coverage areas with detailed list of ping attributes	Yes
- Annotation folder with SonarTRX Targets	Yes
Generation of image-tiles along track. See Note 2	Yes
- Generate image-tiles for portions of the data loaded (Page Filter)	Yes
- Option to adjust number of pings per image-tile	Yes
- Skip generating image-tiles with large turn-rate or slow speed	Yes
Generation of a Master Image along with image-tiles (See Note 2)	Yes
Image-tile and Master Image file formats	*.png, *.tiff
Resolution factor - pixels per unit distance as % of raw data. See Note 4	10 - 100%
Crop the starboard or port images at a certain range	Yes
Ability to use and configure custom image color schemes. See Note 5	Yes
Relocate mosaic to other locations and headings - See Note 7	Yes
Relocate and correct mosaic images to account for layback, cross track offset and transducer angle	Yes
Geo-referencing files (world file, prj file, Manifold GIS, aux.xml, Fugawi ENC)	Yes
Mosaic image watermarks	See Note 3
Mosaic images with no bending (for each tile) - See Note 6 and 11	<b>PlusPack v2B</b>
Generate raw and speed corrected images for each image tile. See Note 11	<b>PlusPack v2B</b>
<b>Batch export functionality</b>	
Scan files and extract basic meta data (CSV and XML file with info.)	Yes
Tracklines, as single KML file, with a KML Path for each recording	Yes
Targets associated with each recording (CSV file with Target information)	Yes
Depth-along-track XYZ data from multiple files (CSV file, points at 2 sec.interval)	<b>PlusPack v2A</b>
<b>Publishing Options</b>	
Auto-prepare KML file for use of online mosaic images (ready for publishing)	Yes
Export KML features to GPX file for display on navigation system or fishfinder	Yes

### Notes

- 1 The ability to import portions of a file can be used to process the data region-by-region. The Clip mechanism can be used to define named regions.
- 2 SonarTRX images can be imported and/or processed into image pyramids using 3rd party GIS & Mapping programs (Manifold GIS, ESRI, GlobalMapper, etc.)
- 3 When SonarTRX run in trial-mode, the generated images includes a watermark. These are not shown when program runs in licensed mode.
- 4 The resolution is in % of the lateral sonar ping resolution. (Example: 1000 lateral intensity values x 30% = 300 intensity values)
- 5 The Color Scheme maps ping intensity values to color values used by SonarTRX when rendering the images.
- 6 Option to generate straight, Geo-referenced images for each tile is useful for uncovering bottom targets in regions of sharp turns.
- 7 The "Relocation" feature is a convenient way to hide the location of your sonar recording, or plot recordings as strip-charts.
- 8 Import of \*.jsf sonar files are supported for select EdgeTech sonar types.
- 9 Basic export of depth-along-track to CSV file can be done from Mosaic creation dialog, by all editions of SonarTRX. Positions are Geodetic (WGS84)
- 10 PlusPack v2A features are included in the core PlusPack 2 product, and enables additional functionality within SonarTRX itself.
- 11 PlusPack v2B features can be added to the core PlusPack 2 product, and enables additional functionality within SonarTRX itself.