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GeoDAS Data Sheet

GeoDAS is a comprehensive data acquisition package for conducting hydrographic surveys. Capable of interfacing with market leading hydrographic equipment GeoDAS offers a wide variety of real-time correction tools and cartographic functions which are generally not offered by the equipment manufacturer's data acquisition software.

This signal acquisition platform provides operators with the ability to control, manage and geo-code multiple sensors simultaneously, and produce observation databases on the fly. With 64 bit Unix code at the heart of the software this Windows OS based program is capable of logging up to 8 broad-band data channels and mosaics 4 channels on a modest spec PC.

Sidescan - Single-Beam - Multibeam - Sub-Bottom - Interferometric - Optical Sensors

- Real-time logging and processing control
- Records all data and metadata
- Integrates all position, altitude and environmental data
- Creates real-time mosaics of sidescans, backscatter, bathymetry, magnetometry, or seabed type
- Use the comprehensive gains controls, or OIC's "Smart Sonar" one-click gains optimisation
- Supports mission planning, execution and analysis, with easy export to Google Earth
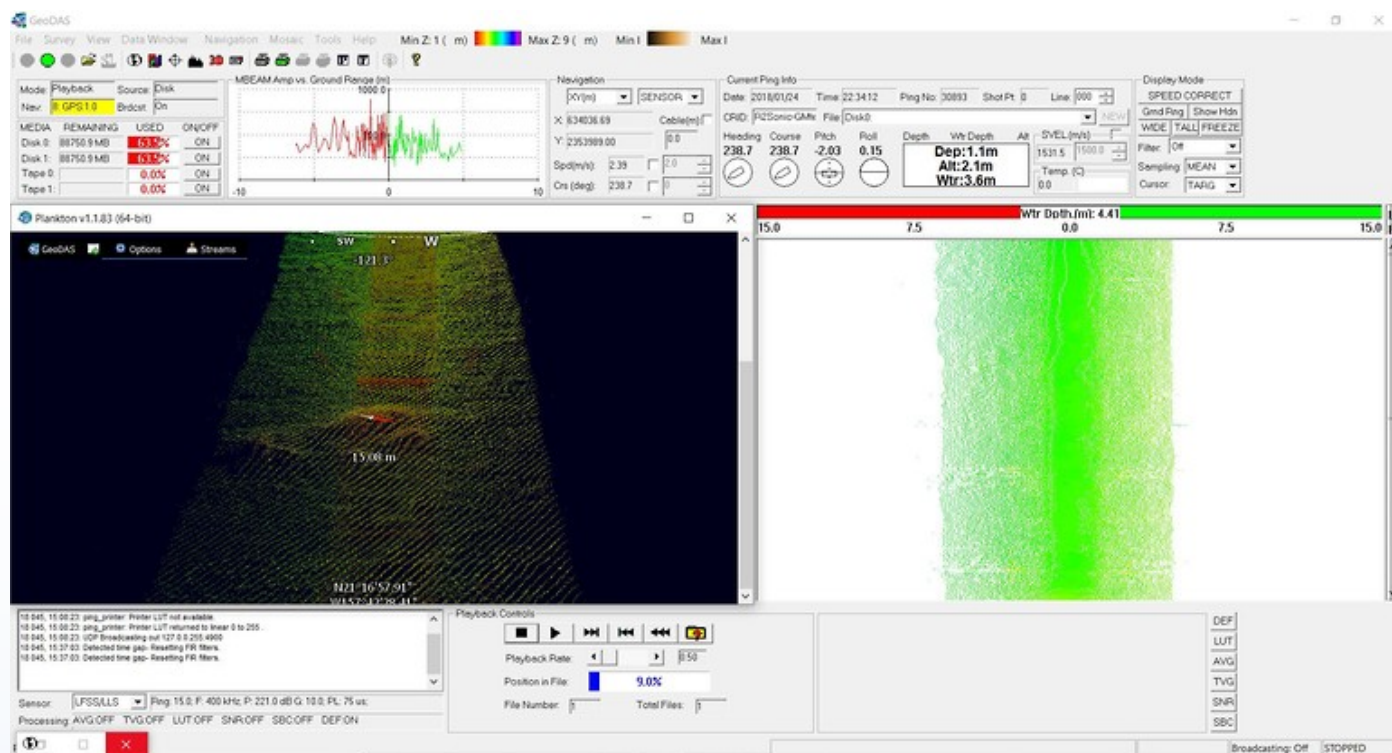
GeoDAS interfaces directly with all sensor systems to ensure the hardware and software configuration only has to be implemented once. Once setup is complete a configuration file can be saved and reloaded for future projects to ensure all parameters are maintained.

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SUPPORTED SENSORS

Areté Streak Lidar
AST ProSAS
Atlas Deso
BlueView P-Series
C-Max CM2
Datasonics SIS1500
Datasonics SIS1502
Datasonics SIS-3000
DTI PROSAS
ECHOplus
EdgeTech 272-ACI
EdgeTech LC-100
EdgeTech 4100
EdgeTech 4200
EdgeTech 4300
Edgetech DF1000
EdgeTech FS-AU (2200)
EDO
HMS-1400
Imagenex 852
Imagenex Delta-T
Imagenex Sportscan
Imagenex Yellowfin
Innerspace 449DF-1D
Klein-595
Klein 2000
Klein 3000
Klein 5000
Knudsen 320
Kongsberg Simrad EM12
Kongsberg Simrad EM950
Kongsberg Simrad EM300
Kongsberg Simrad 1000
Kongsberg Simrad 3000
Odom Echoscan
Odom Echotrac
R2Sonic 20xx
RDI BSSS
Raytheon LS-4096
Reson 81xx, 9001
RoxAnn
SAIC SM2000
Simrad EA500
SonarBeam/DSME Utech S-150
Sonavision Mercury
Teledyne Benthos C3D
Teledyne Benthos Chirp III
Teledyne Benthos SIS 1600
Tritech Micron
Tritech Starfish
UEOS Artemes FLS
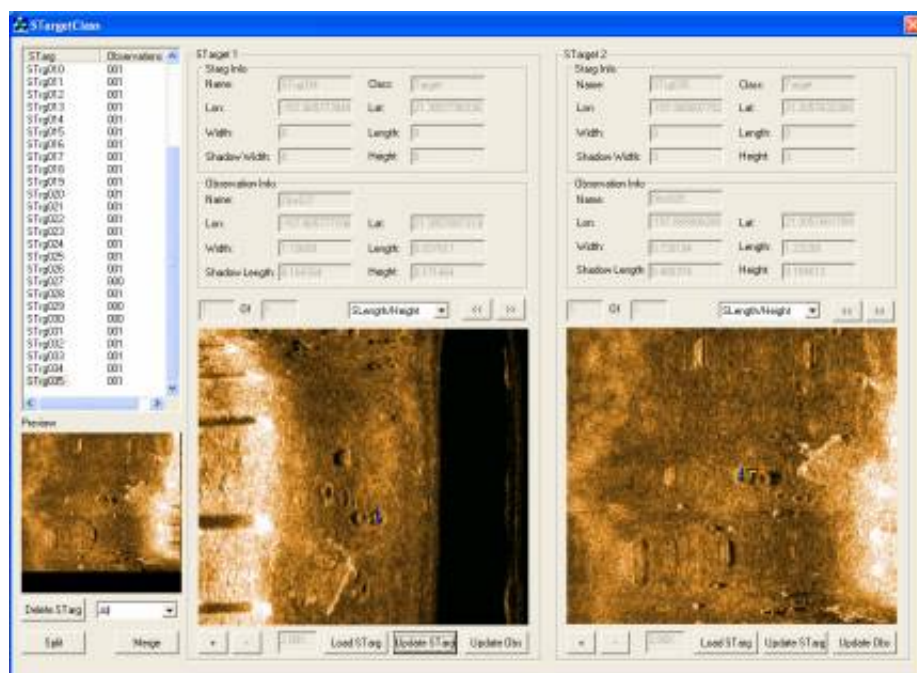UEOS Deepscan
UEOS Widescan

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Data Visualisation

With direct interface to all sensors GeoDAS can apply pitch, roll and heave corrections to multi-beam data in real-time, and filter rogue points with a click of a button; permitting data to be visualised in ways other software only offers during post processing. Mosaics and point cloud views can be created on the fly to assist with navigation and bathymetric Quality Control.
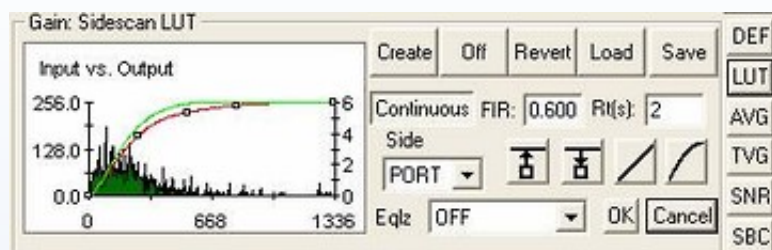

Target Observation and Classification

The GeoDAS Target Classification Tool allows users to group (or ungroup) many observations of the same object as one Target, and calculates target observational info (position, size) from user specified algorithms, observations, and their observational info.

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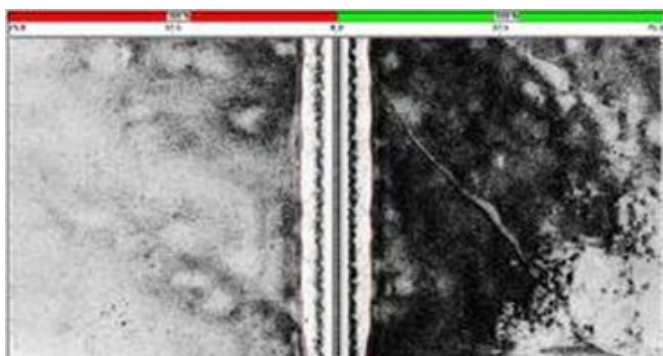Tel: 01525 383438

Filters

The Side Scan Sonar module also provides bottom tracking and ground correction tool as well a variety of Gain and filter controls,
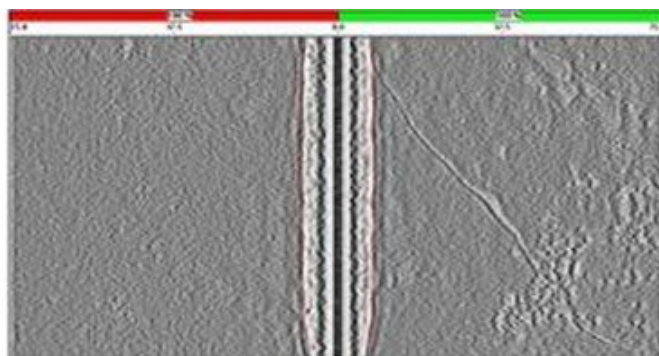

LUT is an alternative to DEF for contrast mapping. LUT applies a Look Up Table that maps the dynamic range of the actual data to the dynamic range of the display. Hit the LUT button for automatic LUT creation based on the last 200 pings of data.

The Signal to Noise Ratio (SNR) tool averages out background terrain features enhancing target features. To efficiently utilise SNR scaling, knowledge of target dimensions and sonar sampling rates are required, as SNR is designed to remove the background (i.e. the geology) from the sidescan display.
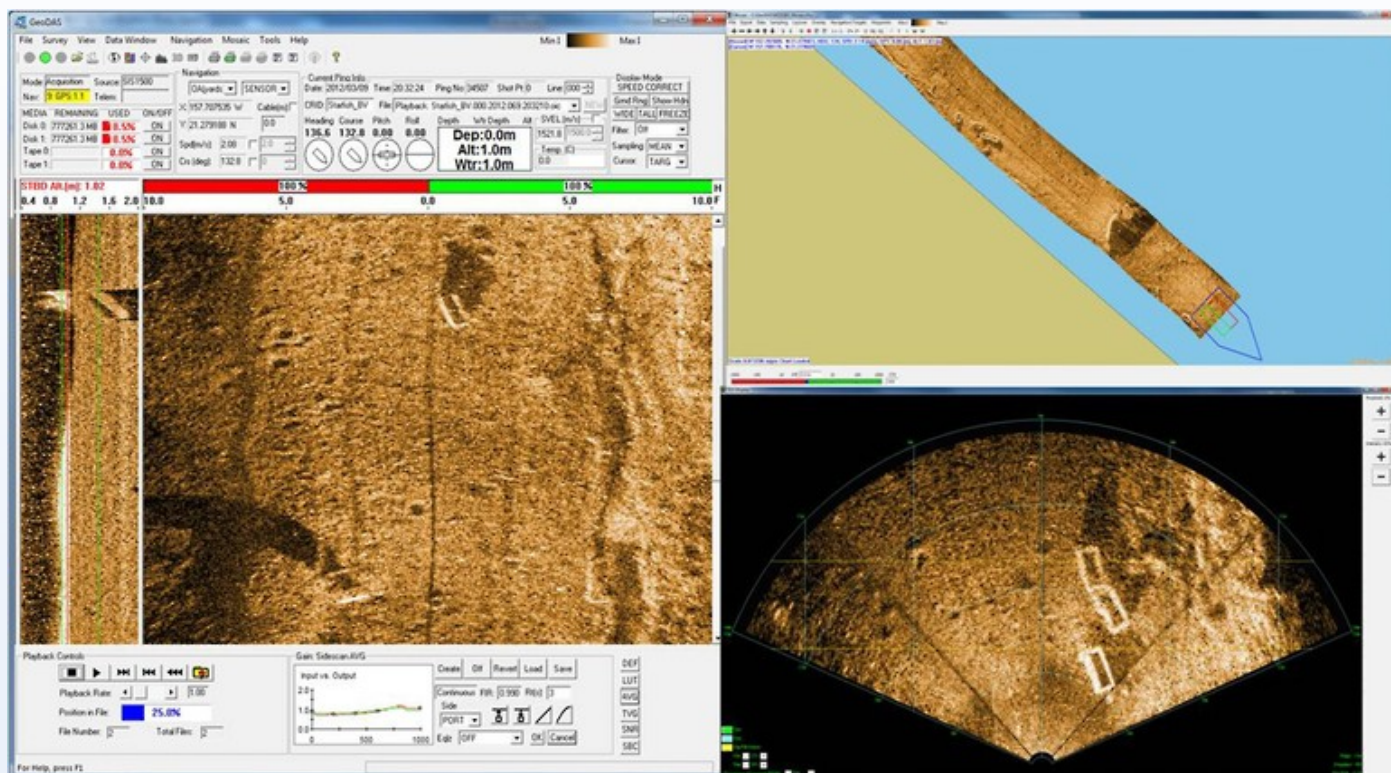
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Before

After

Forward Looking Sonar & nadir gap filling

GeoDAS 6 incorporates support for forward look imaging sonars. The new feature allows users to acquire and view FLS data alone, or as a nadir gap filler for sidescan data. FLS data uses the geo-coding, target marking, and real time mosaicking features which GeoDAS is renowned for. Now, the user can process FLS imagery and determine how much of the FLS sector to push to the mosaic or waterfall. For standalone FLS operations, users can review imagery in a spatial context. In gap fill mode, this new capability translates to no more holidays, and no time wasted running extra survey lines.

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Videos

Mosaicking of BlueView Forward Look Imaging Sonar Using GeoDAS Software
https://www.youtube.com/watch?v=RvTIw7xy3TE

Using a forward look imaging sonar as a nadir gap filler for sidescan data.
https://www.youtube.com/watch?v=DijiCsDwxOA