

ViSea DAS

ADCP Data Acquisition Software

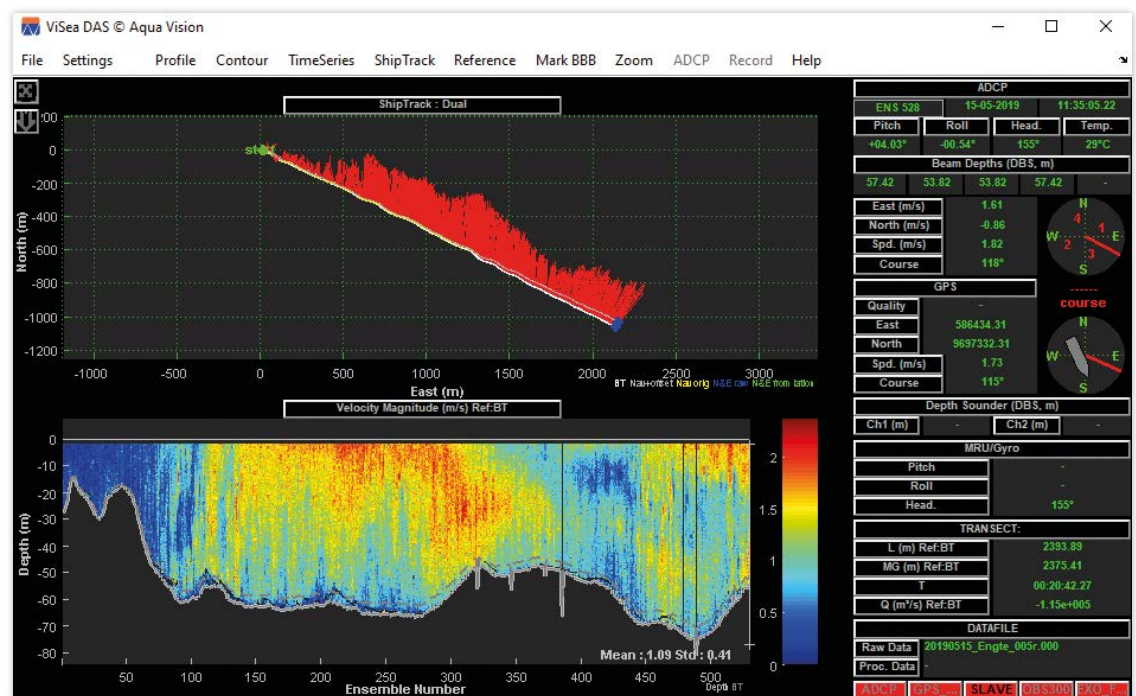
ViSea DAS collects and presents ADCP data, calculates discharge and lets you define the ASCII out format. Specifically developed for vertical ADCPs such as vessel- and frame mounted.

Multi-sensor package

ViSea DAS makes multi-sensor acquisition easy. Add as many external sensors as you need, such as: gyro, pitch, roll, CTD, add turbidity, depth sounder, speed of sound, etc.

(Re)processing data

ViSea DAS lets you make post-acquisition corrections in for example compass calibration, GPS antenna offset, delay of sensors.

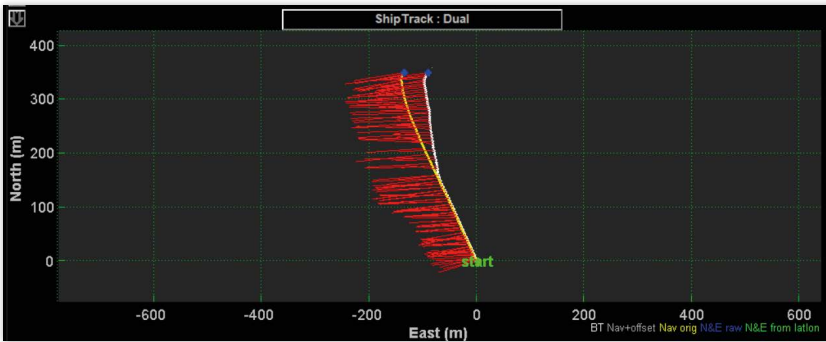


ASCII out format

ViSea DAS allows you to define the ASCII output format.

Depth sounder data

ViSea DAS substitutes corrupt bottom track data by depth sounder data in combination with navigation data to determine vessel speed and flow area.



'Dual ship track' and discharge calculations, referenced to both navigation and bottom track data, result in easy to recognize disturbances like compass offset and moving bottom.

Expand ViSea DAS's possibilities with following toolboxes:

Survey Toolbox

For project based ADCP surveying.

Plume Detection Toolbox

Quantifies sediment plumes using simultaneous ADCP/OBS/CTD measurements.

Expert Toolbox

Access to all firmware dependent parameters ViSea uses to configure ADCPs.

Self-contained Toolbox

Enables ViSea to configure an ADCP for self-contained deployment and data retrieval.

Lowered ADCP Toolbox

For real-time calculation and presentation of depth and time averaged (lowered) ADCP data.

Quad beam Toolbox

For using the 4 individual ADCP beams as a surrogate multi-beam.

Free demo

Free software trials available upon request at Aqua Vision or via your local dealer.

AQUAVISION

Features

- For acquiring, playback and (batch) (re)processing of ADCP data;
- Communicates with all types of Teledyne RDI ADCPs (NB/BB/WH/RR/RiverPro);
- Is compatible with Windows 10 and 11 (64 bits).
- Generates contour plots as a function of time, distance or ADCP ensemble;
- Uses multi-thread technology resulting in accurate time stamping and uninterrupted data flow;
- Has a user friendly decoding method with automatic NMEA recognition;
- Synchronizes with dGPS satellite time;
- Tests your ADCP and creates a log file containing the test results;
- Generates standard raw and processed files (identical to RDI files);
- Generates real-time user defined ASCII files (this can be standard RDI format);
- Real-time local plane coordinates from your dGPS into your ASCII data;
- Forwards real-time data over serial port and/or LAN (combined ADCP and external sensor data);
- Generates unique configuration logfiles for each measurement;
- Offers hardware break and software break for communication through modems;
- Logs all external data in separate files;
- Visualizes transects relative to navigation and/or bottom track data. Useful to determine compass offset and moving bottom;
- Can use two depth sounder frequencies simultaneously. Useful to determine fluid mud layers;
- Offers dual ADCP data acquisition (master/slave e.g. combination of 300/600/1200 Hz).

Requirements:

- Windows 10 or higher;
- 64 BIT only.

Aqua Vision B.V.

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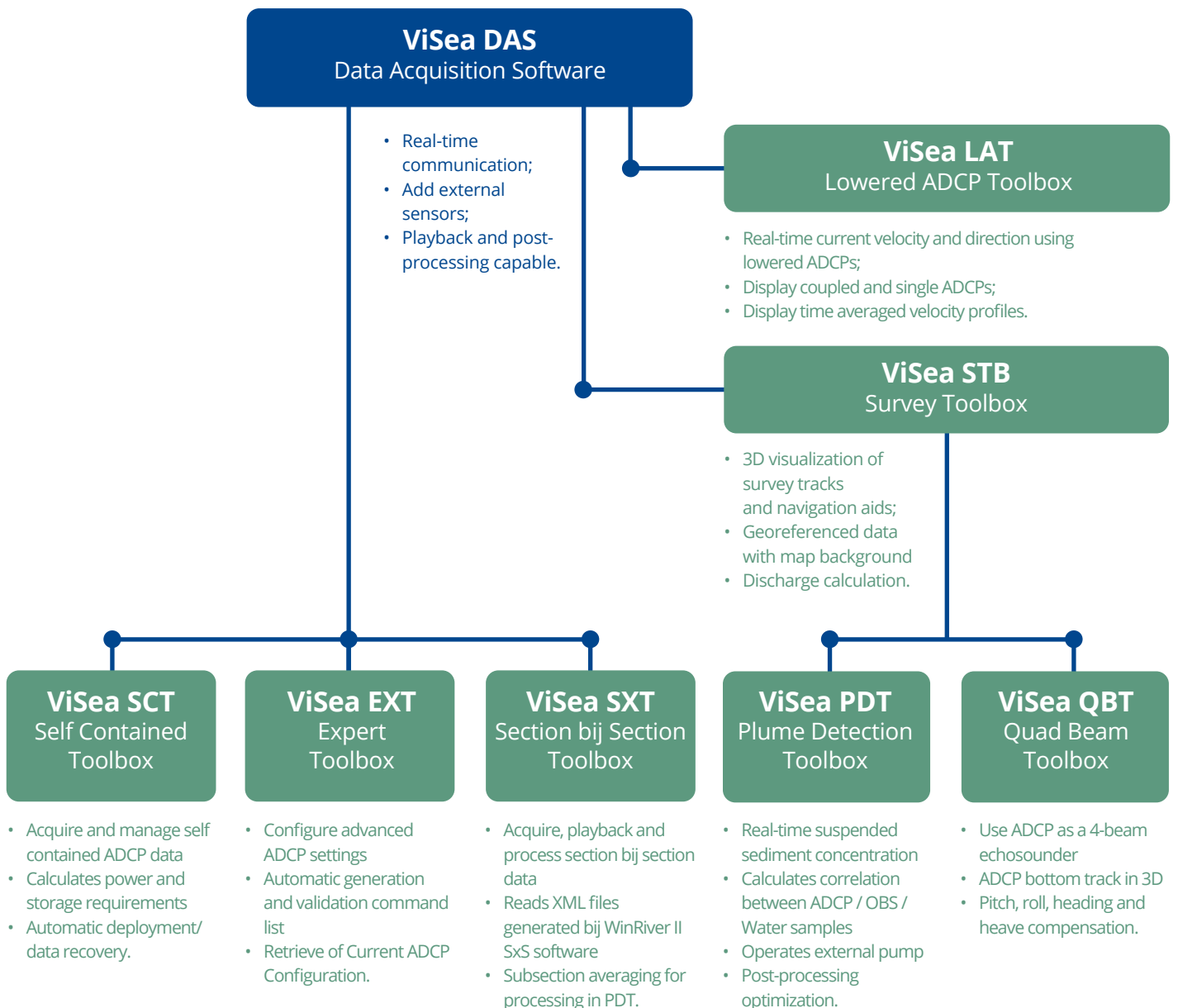
Site: www.aquavision.nl

ViSea

Whatever your application, ViSea has the solution!

For over 20 years, ViSea has been a leading software solution for ADCP measurements. Originally designed for real-time data acquisition and seamless integration of multiple sensors, it has evolved into a globally embraced, versatile package featuring an extensive range of purpose-built toolbox modules.

Various packages can be distinguished, each with its own toolboxes: The first one is the DAS Suite, specifically developed for vertical ADCPs that are for instance vessel-mounted, on a buoy or on bottom frames.



For horizontally mounted ADCPs, Aqua Vision has developed the H-DAS Suite.

ViSea-H DAS

Data Acquisition Software for
Horizontal ADCPs

- Calculate discharge;
- Add external sensors;
- Playback and post-processing capable;
- Use external sensors like waterlevel gauge data.

ViSea-H PDT

Plume Detection Toolbox for
Horizontal ADCPs

- Real-time suspended sediment concentration;
- Derivation based on vertical profile method;
- Derive multiparameter correlations;
- Post-processing optimization.

The Harbor Control Toolbox is developed to visualize the data from multiple ADCPs, either vertical, horizontal or a combination. The display can be modified (semi) real time and can be modified to display your area of operation.

ViSea HCT

Harbor Control Toolbox

- Manage multiple stationary ADCPs;
- Multiple external sensor input;
- Watchdog function for continuous operation.

Free demo

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ViSea

Post-processing software

Aqua Vision has developed two stand-alone software packages for post-processing of acquired ADCP data, that help you to easily validate and present the data, build and maintain a database, or focus on specific applications. These packages don't require post-processing software, and are compatible with ViSea's and other acquisition software's data.

ViSea-STAR

Sediment Transport
Analysis Routine

- Calculate suspended sediment concentrations and fluxes;
- Load multiple transects, enter and edit water samples, choose parameters, validate data, and generate output, all from the same screen.

ViSea DPS

Data Presentation Software

- Validate ADCP data;
- Visualize ADCP data;
- Database functionality;
- Export data and plots in multiple formats.

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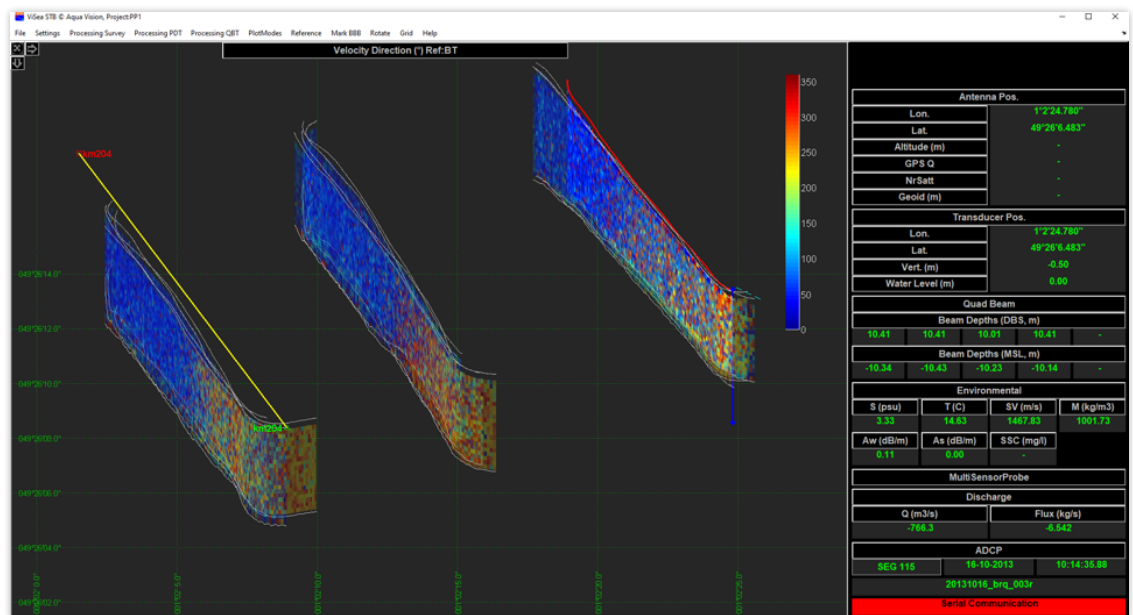
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ViSea STB

Survey Toolbox

ViSea STB Creates a project based workspace with 3D visualization of survey tracks and navigational aids.



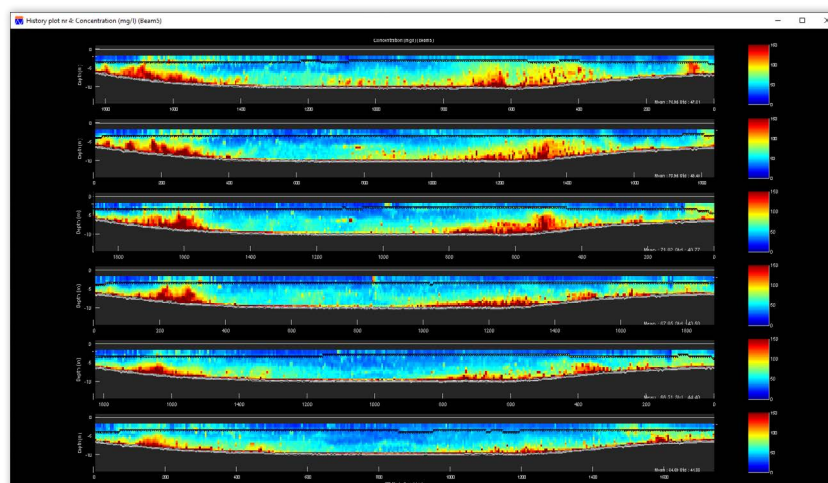
Waypoints

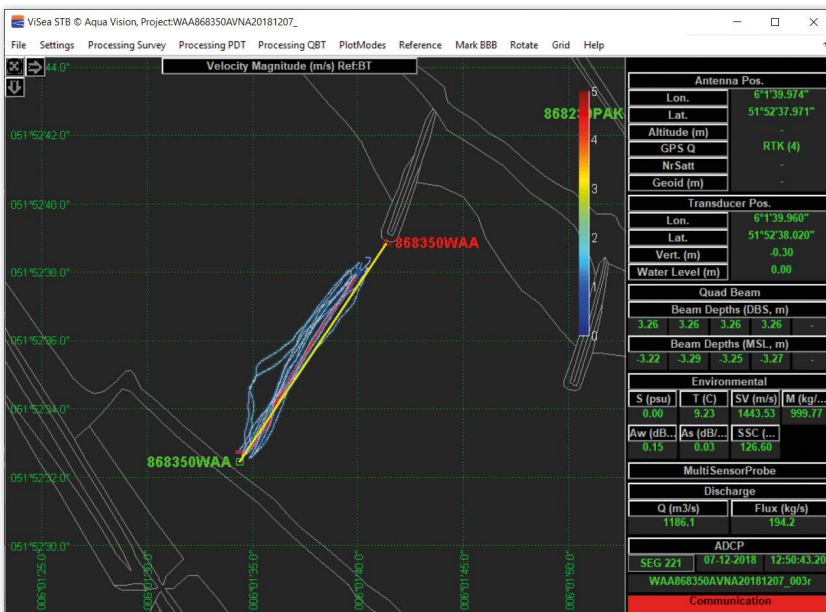
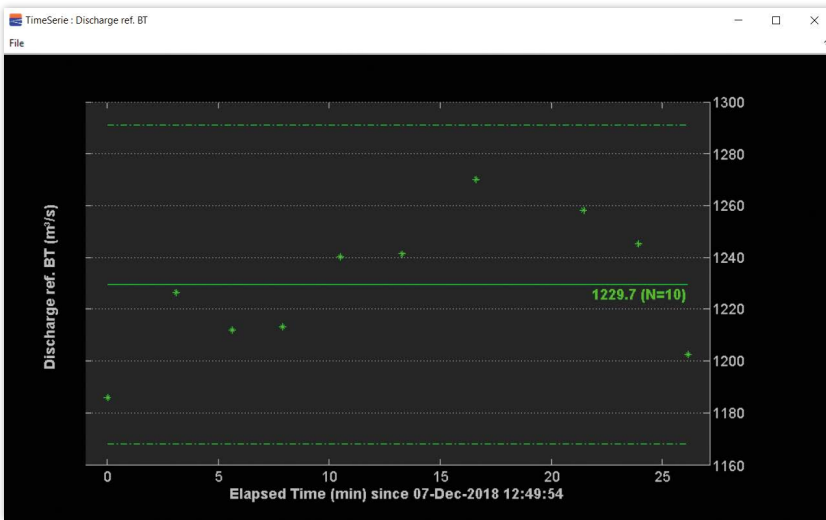
ViSea STB is an extension of ViSea DAS, letting you add waypoints to a project. Waypoints and backgrounds can be used to aid in navigation or mark shore locations for your discharge transect.

Project based

ViSea STB is project based, allowing you to load and playback all tracks from your measurement campaign via ViSea DAS.

Time series of track display.





Features

- Import backgrounds;
- Define waypoints (used for automatic edge discharge calculation);
- GPS coordinates to extrapolate edge estimates.
- Exploit GPS coordinates automatic export of contour plots into Google Earth;
- Collapsible displays;
- Plot and view data through time;
- Create overviews of contour plots. Generate multi contour figures with user specified number of plots on a page;
- Add track offsets for projects without GPS;
- Ruler tool for quick distance check;
- Split and clean tracks.

Requirements:

- Windows 10 or higher;
- 64 BIT only.
- Requires ViSea DAS.

Extrapolate discharge

ViSea STB ensures a discharge calculation for the total channel cross section by extrapolating discharge between shore-based waypoints.

Free demo

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ViSea PDT

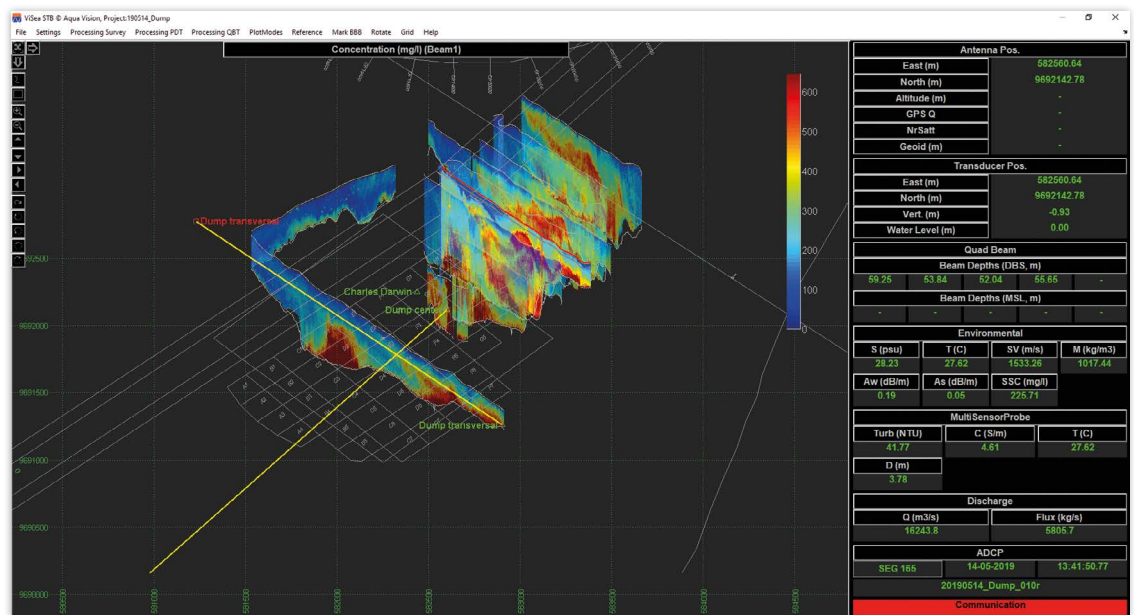
Plume Detection Toolbox

ViSea PDT enables you to quantify sediment plumes in real-time using simultaneous ADCP / OBS / CTD measurements.

Real-time sediment concentrations

ViSea PDT uses ADCP data to calculate in real time suspended sediment concentrations and fluxes. High spatial and temporal resolution lets you track sediment plumes from dredging and dump activities.

Suspended sediment concentration (SSC mg/l) as calculated in real time from ADCP/OBS/CTD measurements.

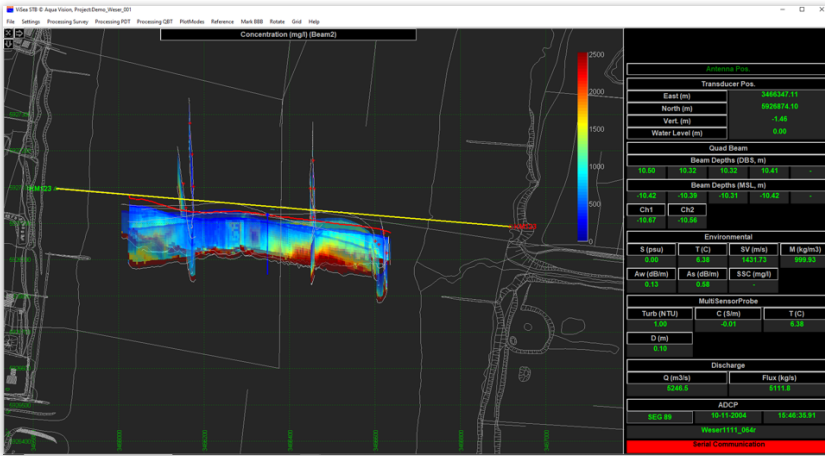


ADCP data acquisition

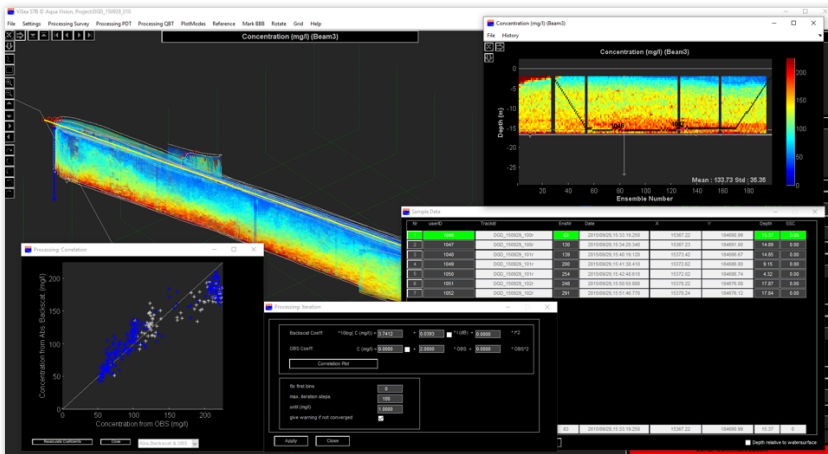
ViSea PDT works in combination with data acquisition software, ViSea DAS. Data can be read from supporting sensors, independent of output format.

Optimize results during post processing

ViSea PDT lets you optimize key parameters during post-processing. You can adjust calibration coefficients and import suspended sediment and grain size measurements, to optimize results.



Real-time sediment plume monitoring during dredge and dump activities.



Suspended sediment concentration (SSC mg/l) as calculated in real time from ADCP/OBS/CTD measurements.

Free demo

Free software trials available upon request at Aqua Vision or via your local dealer.

Features

- Builds up a real-time 3D view of a sediment plume;
- Converts ADCP backscatter to Suspended Sediment Concentration (SSC in mg/l);
- Calculates sediment fluxes and presents these fluxes in a three-dimensional view;
- Can be applied to self-contained ADCP data;
- Calculates sediment attenuation using an iterative calculation procedure;
- Works also with self-contained data;
- Imports external sensor data such as OBS, CTD etc.;
- Operates external pump devices using modbus protocol;
- Converts Conductivity to Salinity using the UNESCO formula;
- Allows users to place a mark (date and time stamp) in the data;
- Generates user defined ASCII files (this can be standard RDI format);
- Imports grain size distributions for more accurate results;
- Calculates correlation between ADCP/OBS, ADCP/ Water samples OBS/Water samples;
- Facilitates fast playback and post processing, where all data are stored in a 3D matrix;
- Allows user to mark location and time of water samples.

Requirements:

- Windows 10 or higher;
- 64 BIT only.
- Requires ViSea DAS and ViSea STB.

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