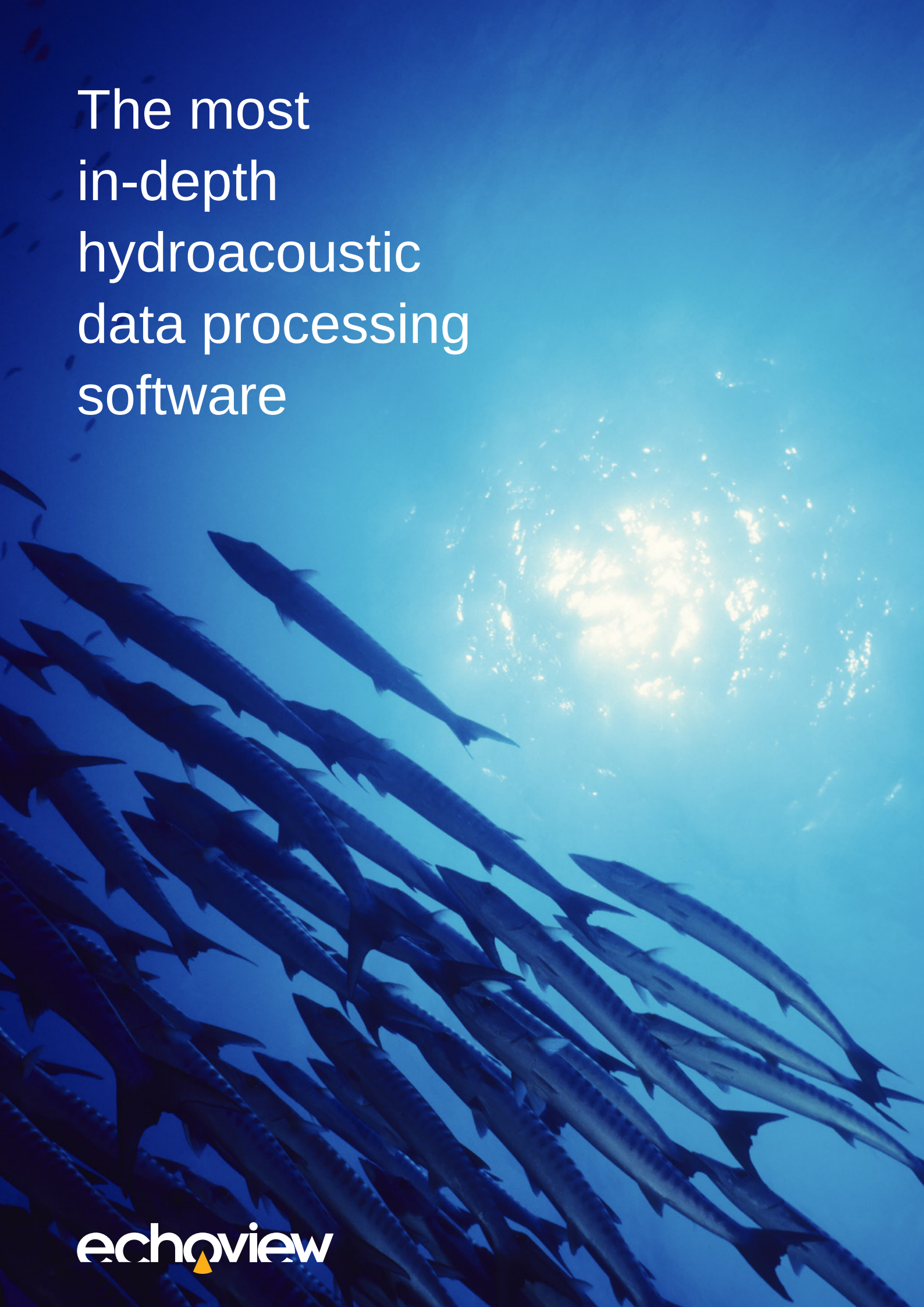
The most in-depth hydroacoustic data processing software



echoview

“Echoview turned complex processing sequences into fast, simple and easy to handle steps.”

– Dr Serdar Sakinan

Sound Knowledge

Echoview® is the industry-standard hydroacoustic data processing software for scientists.

It is used by hundreds of universities, government organizations and businesses in over 50 countries to visualize, process and characterize echosounder and sonar data in studies of marine and freshwater ecosystems.

Echoview specializes in converting data to information and helps make your data processing faster, easier, more objective and more cost effective.

Mature and trusted, Echoview is unsurpassed in scope, power and flexibility, making it the software of choice for hydroacoustic data processing.

Workflow

Use Echoview to process your hydroacoustic data according to a logical workflow:

Explore Visualize and explore your acoustic and ancillary data in the form of echograms, maps, graphs, tables and 4D scenes.

Calibrate Convert your raw acoustic data into absolute measurements of backscatter that are correctly positioned in space and time.

Clean Identify and mitigate background noise, intermittent noise, missing data and other unwanted components.

Detect Define the bottom depth, detect individual targets, schools or other aggregations, track target movement over multiple pings and partition your data however you choose.

Classify Perform absolute and probabilistic single- and multi-frequency echo-trace classification.

Characterize Calculate and export analyses for extensive data characterization and for further analysis of your acoustic data products with your choice of third-party software.

Automate Save your dataflow for application to other datasets, and write scripts (instructions for Echoview) in your preferred programming language.

The industry standard for echosounder and sonar data processing

Stock Assessment

Stock assessments are critical for the management of marine and freshwater resources. Echoview provides an unrivalled wealth of powerful yet easy-to-use tools for quantitative acoustics.

As the industry standard, Echoview allows you to:

- Explore and calibrate your data
- Account for noise and other artifacts that affect biomass estimates
- Detect schools of fish or zooplankton
- Calculate the bottom depth
- Classify your data (e.g. for species identification) manually or based on user-defined rules
- Characterize your processed data using an extensive range of analysis variables.

Behavior & Ecology

Echosounder and sonar data can provide unrivalled spatial and temporal information at the level of individuals (e.g. fish, krill), aggregations (e.g. schools, layers) and intervals (in space and/or time). Echoview provides a wealth of powerful yet easy-to-use tools, algorithms and operators for identifying and characterizing these levels in your acoustic data.

As the world's most comprehensive, flexible and trusted tool for bioacoustic data processing, Echoview enables you to:

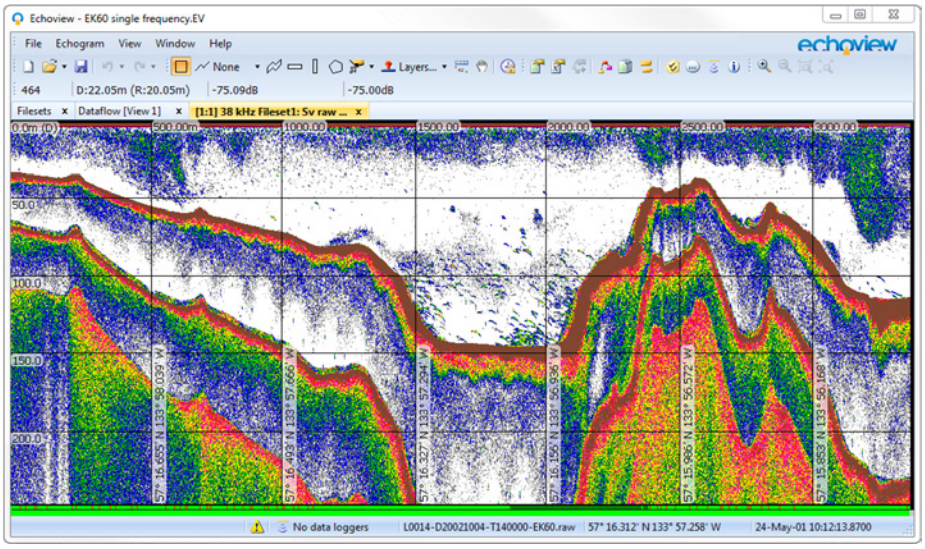
- Detect and track individual organisms
- Estimate fish size
- Detect school aggregations
- Delineate your data in space and/or time
- Visualize and synchronize acoustic and video data
- Characterize individuals, aggregations and intervals in terms of their location, morphometry, acoustic energy and environment.

Habitat Classification

Echosounder backscatter measurements of the bottom (whether seabed, lake bottom or riverbed) can provide information about the nature of that substrate (e.g. hard or soft, rough or smooth, sand or gravel) and its bathymetry.

Echoview provides a convenient yet powerful way to objectively describe the bottom and help to understand its role as habitat for aquatic organisms using data from single- and split-beam echosounders by enabling you to:

- Explore and calibrate your data
- Account for noise and other artifacts
- Define the bottom depth
- Visualize and synchronize acoustic and video data
- Identify and characterize the first and second bottom echoes
- Quantify and simplify the variance in the bottom features by Principal Component Analysis
- Cluster bottom points into classes by k-means clustering.



A typical echogram showing aggregations at the surface, individual fish deeper in the water column, and a strong bottom echo.

The software of choice for the hydroacoustic community

Echoview Modules

Echoview's licensing offers access to a wide range of functionality via different modules, allowing flexibility to license what you need when you need it, with the option to add more capability later.

To confirm which modules best suit your requirements, talk to the Echoview sales team today.

Getting started with Echoview: These modules can be licensed with no pre-requisites.

Echoview Essentials Read data and display echograms from supported systems. Detect the bottom and define other reference lines. Create 3D digital terrain models of the seabed and 3D displays of map data. Perform basic quality control and conduct analyses on data then export the results for use elsewhere.

Live Viewing Display echograms, cruise tracks and 3D curtains in real time from selected Simrad echosounders.

Habitat Classification Detect, analyze and classify the bottom substrate in single and split beam data for seabed characterization and habitat mapping purposes, then view and export classification results. Export data to QTC IMPACT and EchoIMPACT seabed classification products.

Additional modules: To gain access to the following modules, you will need to have licensed Echoview Essentials.

Media Display videos synchronized with echogram data.

Automation Automate data processing using a language of your choice (COM interface supplied).

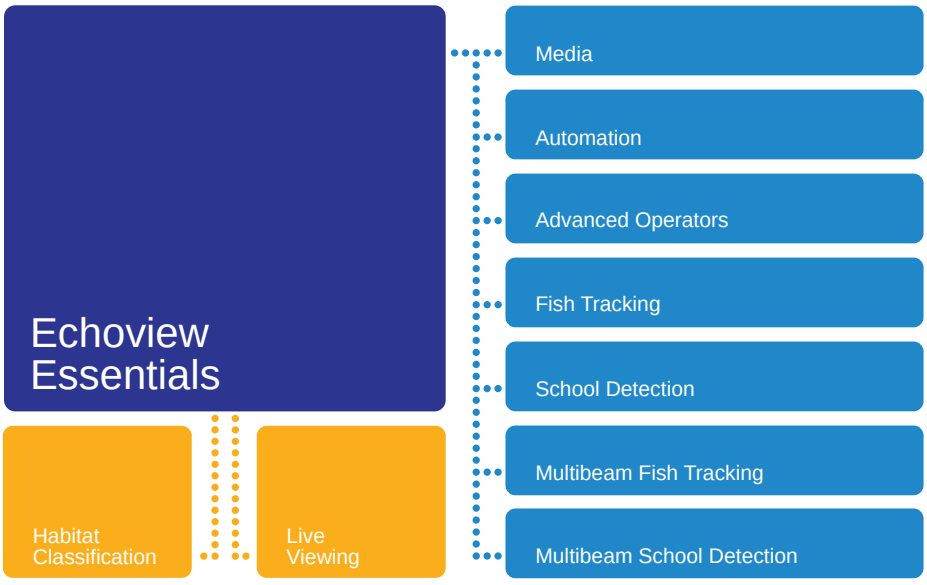
Advanced Operators Manipulate your data by creating new echograms from existing ones using advanced operators and algorithms. Compare frequencies, apply quality controls, classify data, and more.

Fish Tracking Detect and analyze the tracks of individual fish and other targets in single and split beam data. Count fish and examine their behavior.

School Detection Detect and analyze fish schools (shoals or aggregations) in single and split beam data.

Multibeam Fish Tracking Detect, track and analyze individual fish targets in data from single beam, split beam and multibeam systems, including imaging sonars.

Multibeam School Detection Detect, track, and analyze fish schools or bubble aggregations in data from multibeam systems.



Supported Sounders

The following is a subset of the echosounder and sonar data file formats that can be processed in Echoview:

- Simrad (including EK60, ES70, EK80 and ME70)
- BioSonics (including DT-X)
- HTI (including model 241 and 244)
- Sound Metrics (DIDSON and ARIS)
- Kongsberg Mesotech (including M3, SM20 and the EM series)
- Reson (including the SeaBat T20, 6K, 7K and 8K series)
- Furuno (FQ80, ETR-30N and FCV-30)
- BlueView (2D imaging sonars)
- RDI ADCP (Workhorse series)
- ASL AZFP

Please see our online documentation for the full list of more than 50 supported models from 15 hydroacoustic hardware companies.

echoview.com

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