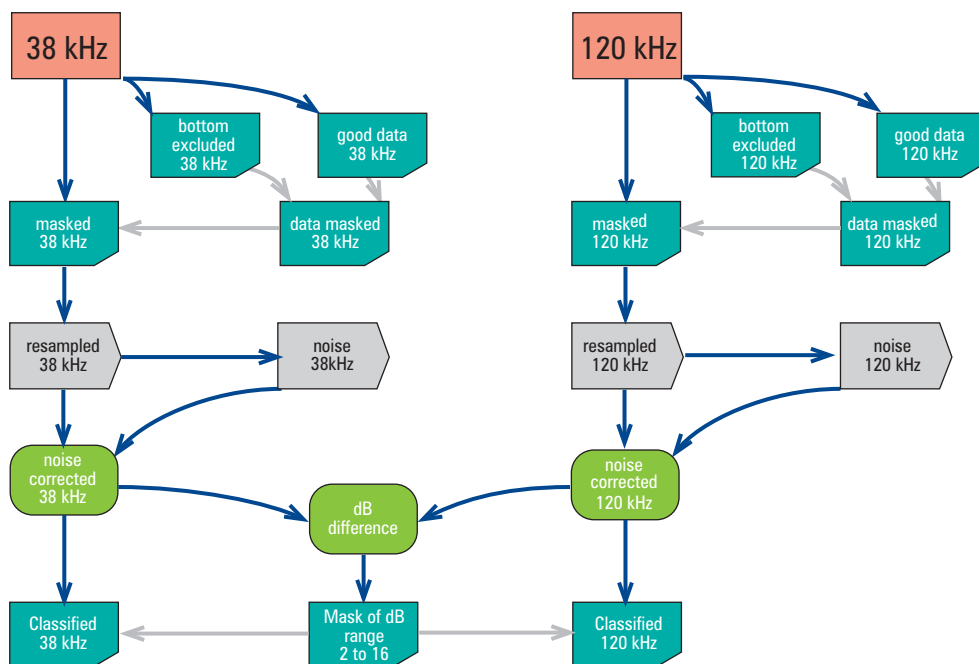


# species ID



## The task

Species identification and echogram classification for biomass estimates in marine and other environments.

## The solution

Define and automate the identification of different classes of scatterers. Use single or multiple frequency methods by employing a powerful suite of virtual echogram operators along with filtering, school detection, single target detection and target tracking algorithms. Echoview provides a highly efficient visual environment for you to develop echo classification solutions and enables access to the shared methods of colleagues.

## The benefits

### 1. Visualization of all data and the results of analysis steps

- Tune and optimize your analysis by viewing echograms and 2D and 3D graphs that automatically update as algorithm settings change
- Compare different classification algorithms (for example, display an echogram of the difference between two algorithms)
- Verify your classification methods in the field. Monitor algorithms in real time during a survey to enable you to conduct targeted trawl sampling for algorithm verification

### 2. Multiple-frequency processing

- Wide range of operators enables complex multiple frequency algorithms
- Multiple frequency target strength algorithms
- Filters based on convolution and image processing techniques

### 3. School detection algorithm

- Efficient identification and parameterization of fish schools using a configurable school detection algorithm and image processing tools
- Export a rich set of school statistics and other parameters for classification and further analysis

### 4. Efficient and precise biomass estimation

- Combine results from multi-frequency and school detection processing with the ability to define and edit echogram regions and properties such as allocated species-composition
- *In situ* single target detection and target strength analysis tools to aid echogram classification
- Partition biomass into components according to species or other classifications and integrate by cells or user-defined polygons as well as by surface and bottom referenced layers
- Use templates and scripting tools to streamline your processing methods

