



## Echoview Tutorial: Introduction to Live Viewing

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## Overview

This tutorial is optimized for Echoview 13 and provides an introduction to live viewing in Echoview.

This tutorial is not intended as a comprehensive user manual.

Further information on Echoview tools and topics can be found in the latest version of the Echoview help file. This can be viewed online and is installed with Echoview. Press F1 when using Echoview to open the help file and read context-sensitive information.

Throughout this tutorial further reading is referred to the Echoview help file or other Echoview learning materials: <https://echoview.com/support/tutorials/>

## Prerequisites

This tutorial assumes you have Echoview installed, and the following skills and knowledge:

- Familiarity with the basic operation of Echoview. We strongly recommend that you complete the "Getting Started with Echoview" tutorial before beginning this tutorial.
- Familiarity with a supported Microsoft Windows™ operating system. For more information refer to the Echoview Help file page: Computer requirements.
- A basic understanding of echosounding techniques and hydroacoustic surveying. For more information, see texts such as *Fisheries Acoustics* (Simmonds and MacLennan, 2008, Chapman and Hall, London).

## Echoview modules

This tutorial requires a license with the Survey Suite module. If you do not yet have access to an Echoview license with this module, please contact [info@echoview.com](mailto:info@echoview.com) to request an evaluation license.

## Contacting Echoview

For assistance with this tutorial please contact [support@echoview.com](mailto:support@echoview.com).

## Troubleshooting

The files for a tutorial are typically located in C:\Echoview Software\Tutorials\. The file path may be different if you chose to install the tutorials elsewhere on your system. If the files are not in this folder, use Windows Explorer to search for them. If they are not loaded on your machine, download and reinstall the tutorial from <https://echoview.com/> or from the Echoview USB drive.

If you receive a message saying that the version of Echoview you are running cannot read the file you have opened, you may be running an old version of Echoview. You can download the latest version of Echoview from <https://echoview.com/>.

## Topic 1: About Live Viewing

Echoview supports the near real-time display of data logged from some echosounders, which is referred to as live viewing. In brief, live viewing works as follows:

- An Echoview Echolog application (i.e. Echolog, Echolog 500, Echolog 60 or Echolog 80) receives data being transmitted by an echosounder (in the case of Echolog and Echolog 500), or reads data files while they are being recorded by other logging software (in the case of Echolog 60 and Echolog 80).
- The Echolog application broadcasts data to Echoview. The Echolog application may also save a copy of the data to a new data file.
- Echoview receives the data that is broadcast by the Echolog application in near real time, and allows viewing of echograms and other variables, analysis, and other functions.

### What data are supported by live viewing?

The data that are supported in live viewing are described in the table below:

Live viewing of...	being logged by a...	is possible using...
Raw data	Simrad EK80, ES80, WBAT, EKAuto, Kongsberg EA640, Simrad Ex60, Ex70, EK15, BioSonics DT series, Kongsberg Mesotech M3/Flexview (beamformed), Sound Metrics ARIS and Sound Metrics DIDSON.	Echolog
EK500 compatible telegrams	Simrad EK500, EA500, EK60, EQ60, ES60 and EY60 echosounder on the BI500 port	Echolog 500
EK60 .RAW files (.raw, .out and .bot)	Simrad EK60, EQ60, ES60, EY60, EA400 and EA600 echosounders	Echolog 60
EK80 .RAW	Simrad EK80 echosounders (including WBAT and others)	Echolog 80

Each Echolog application works slightly differently and has different capabilities, however, they all enable the live viewing of data in Echoview. For more information about a particular Echolog application, refer to the "Using Echolog Applications" Table of Contents book in the help file.

### What Echoview features can be used in real time?

Features of other licensed modules may be used with the Survey Suite module, including viewing of virtual variables based on raw variables and school detection.

- Echograms and virtual echograms
- Lines and regions
- Calibration Assistant
- Selections
- Schools detection (Schools Detection module required)
- Classification after schools detection (Schools Detection module required)
- Linked graphs
- Cruise tracks

- Curtains and scenes
- Live export operator (when the Echoview Essentials module is also licensed).

## Topic 2: Live Viewing with Echolog

In this topic, you will complete a live viewing exercise using Echoview and Echolog.

**Note:** It is worth completing the exercise even if you will be live viewing other data types as similar principles apply. If you will be live viewing other data types, you should contact [Echoview support](#) (or refer to the help file topics About live viewing and Using live viewing) after you have completed this exercise to discuss the unique aspects of live viewing another data type.

### About Echolog

Echolog is an Echoview application that broadcasts raw data from a variety of echosounders. Echolog writes data to a data file as it receives it and broadcasts the data for live viewing in Echoview. Logging with Echolog has many advantages, including the logging of high resolution data and live viewing in Echoview.

### Accessing shared directories when live viewing

Echoview and Echolog applications run under Microsoft Windows systems. Sharing difficulties with files and folders may occur when logging and live viewing on different devices. In situations where Echolog and a Survey folder are on different devices, it is important to correctly configure Windows Sharing permissions for the Survey folder. This topic is discussed in more detail on the Using live viewing and Live viewing problems pages of the Echoview Help file.

- The device that runs Echolog must:
- be able to see the Survey folder
  - be able to share the files in the Survey folder

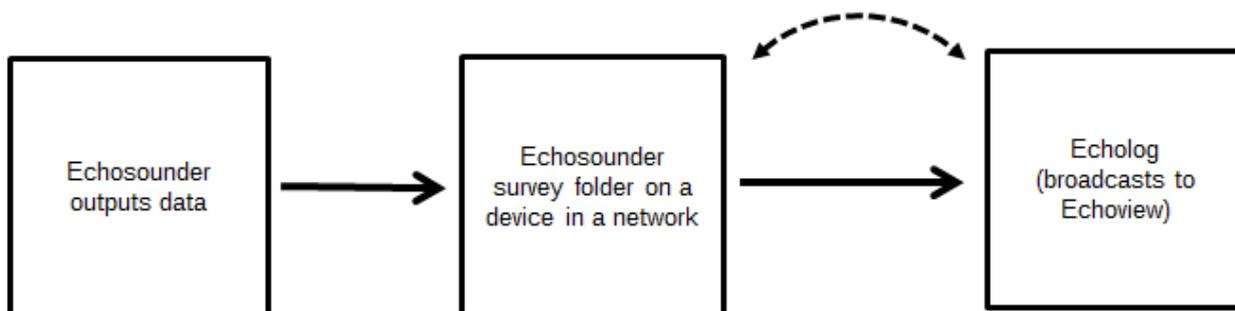


Figure 1. Flow of data under live viewing

### Setting up Echolog

The first step in live viewing is setting up Echolog.

Click the Windows Start icon, locate the Echoview program folder or group, and select **Echolog**. The very first time Echolog is started, you need to open Echolog via **Run as administrator**.

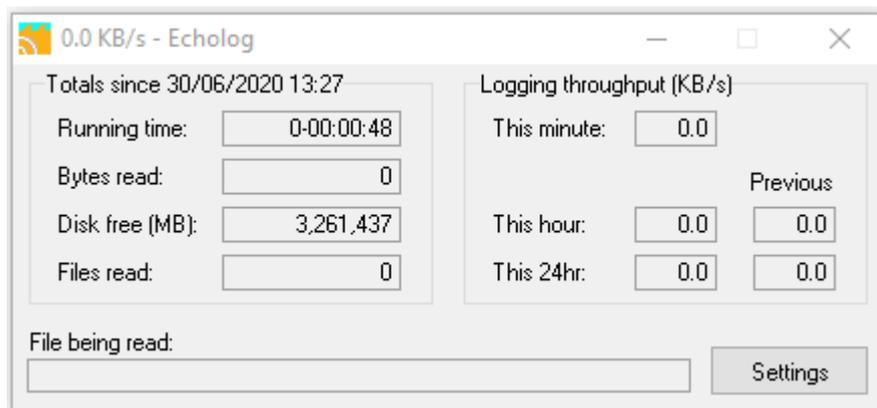


Figure 2. Echolog when it is ready to log.

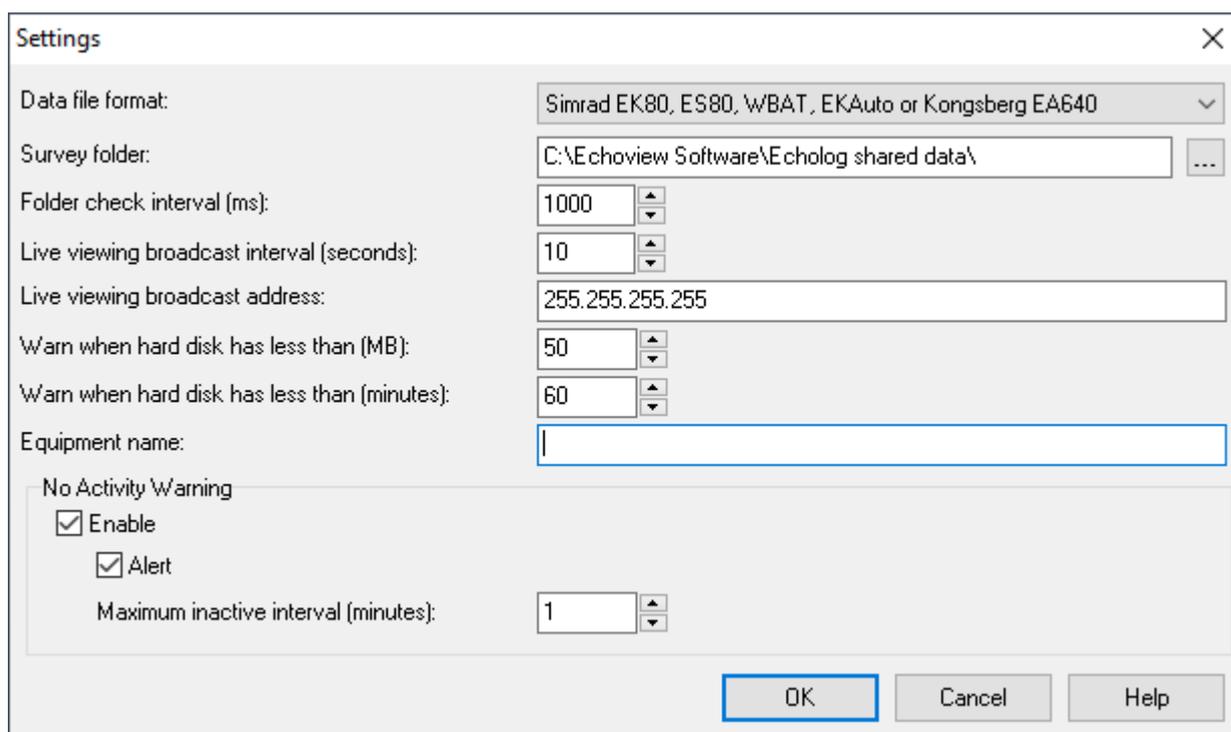


Figure 3. Echolog Settings dialog box.

1. Open the Echolog Settings dialog (if not already open)
2. Under **Data file format** select Simrad EK80, ES80, WBAT, EKAuto or Kongsberg EA640 from the list.
3. Under **Survey folder** click the ellipsis button, browse to and create a new folder `C:\Echoview Software\Echolog shared data\`. For this tutorial, it is assumed that Echolog and this “Survey” folder are on the same device. Under Windows Explorer configure this folder to be a Shared folder. Echolog will write the data file into the folder.

These settings and the other settings on the dialog box are not described in detail in this tutorial. For a description of each setting, refer to the "Using Echolog" topic in the help file.

4. Click **OK**. You may see a message about shared folders; click **OK**.

The Echolog window is displayed. The value in the **Running time** box will be ticking over but all other information will be static. 0.0 KB/s in the title bar and the blank **File being read** box indicates that Echolog is not logging or broadcasting any data.

## Setting up Echosim 80

As you are unlikely to have an echosounder of the correct type set up and ready to use for this exercise, it may be necessary to use Echosim 80 to simulate the echosounder. Echosim 80 simulates a Simrad EK80 echosounder. It works by replaying previously logged EK80 (\*.raw) data files.

- Click the Windows Start icon, locate the Echoview program folder or group, and select Echosim 80. The very first time Echosim 80 is started, you need to open Echosim 80 via **Run as administrator**.
- The Echosim 80 window will appear as shown below.

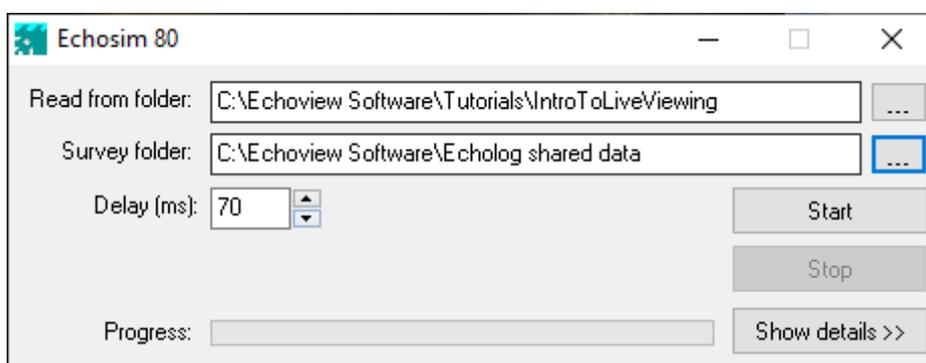


Figure 4. Echosim 80 when it is first started.

- In the **Read from folder** box, click the Ellipsis button and select `C:\Echoview Software\Tutorials\IntroToLiveViewing` and press **OK**. The filename path will update. The file is a previously logged EK80 data file that Echosim will broadcast.
- Switch to Echolog.

## Starting live viewing

Echolog and Echosim 80 are now set-up and you can begin live viewing. Most Echoview functionality is available while you are live viewing, e.g. you can create lines, regions, perform integrations, detect schools, adjust variable properties or create virtual echograms. However, in this exercise you will not use any of this functionality.

- On the Echosim 80 window, click **Start**. This is equivalent to starting to send data from an echosounder.
- Click **Show Details** to see more information about Echosim 80's activity.
- Switch to Echolog. Echolog is now logging data and saving data files as if data were being received from an EK80 echosounder. It is also broadcasting the information across the network so that the data can be live viewed in Echoview from any computer on the network if the log file folder is shared.

The value in the title bar (e.g. 1642.6 KB/s) shows how quickly data is being broadcast by Echolog. The **Bytes read** box shows the amount of data written to a data file so far, and the **File being read** box contains the name of the data file Echolog created and is writing data to.

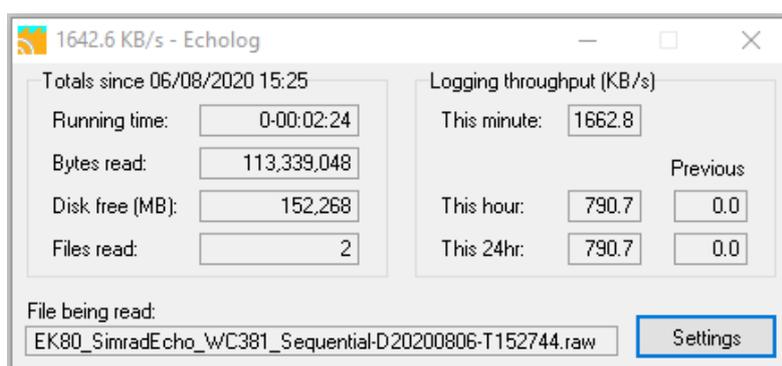


Figure 5. Echolog when it has started logging.

12. Start Echoview by selecting it from the Windows **Start** menu or by clicking the shortcut on the desktop.
13. Click the **View** menu and make sure the **Live Viewing** entry is highlighted so that the Live Viewing dialog box is visible.

The Live Viewing dialog box lists Echolog applications running on the local network that are available for live viewing. Each listed Echolog application is displayed with its equipment name, current logging throughput and the status of the logging application.

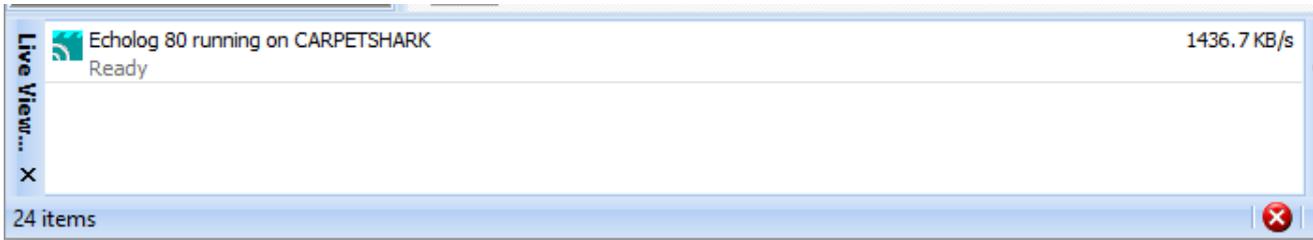


Figure 6. Echoview Live Viewing dialog box lists logging applications detected on the network.

14. To begin live viewing, select an Echolog application within the Live Viewing dialog box. Right-click and on the **Shortcut** menu select the **Start live viewing**, or simply double click the selected Echolog application.
15. A new EV file opens. The Filesets window displays the data file output by Echolog and raw variables derived from the live viewing data. Double-click a variable to display the data. Some variables may be displayed in more than one way. Echograms will extend as new data arrives.

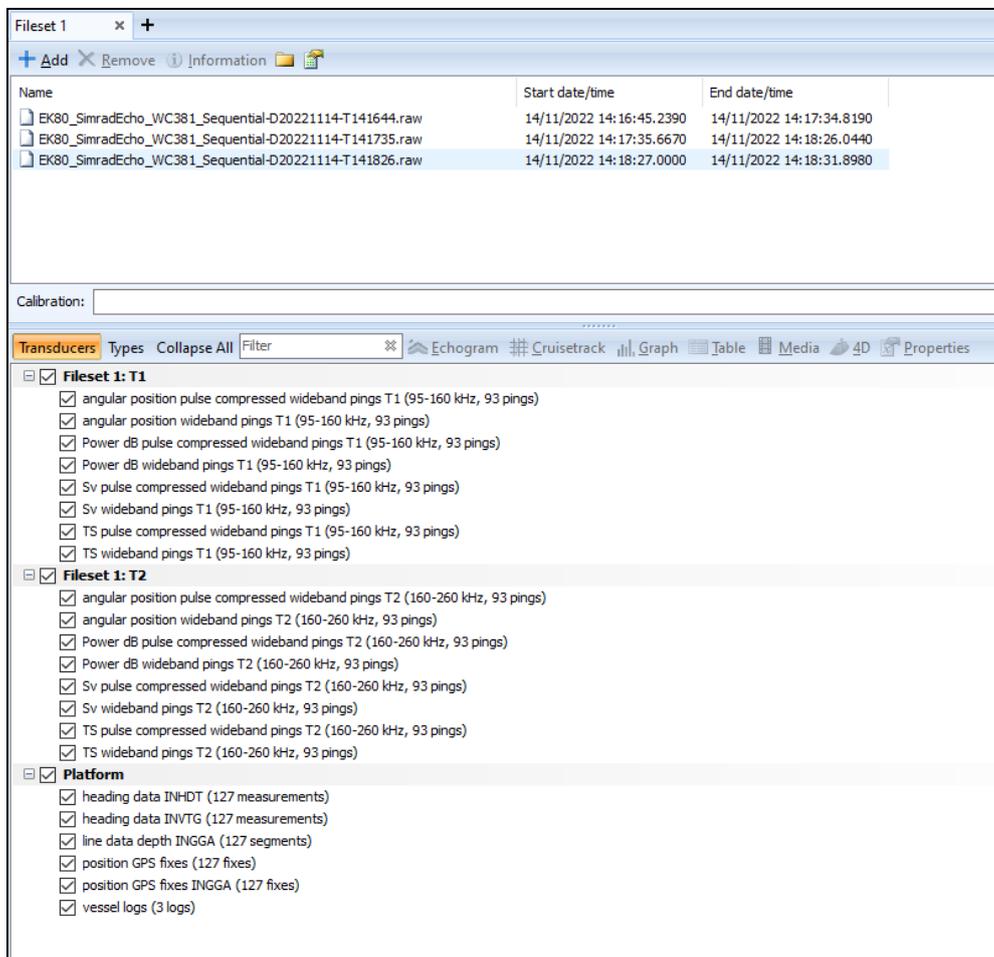


Figure 7. The Filesets window.

16. Display the Sv wideband T1 and T2 echograms.

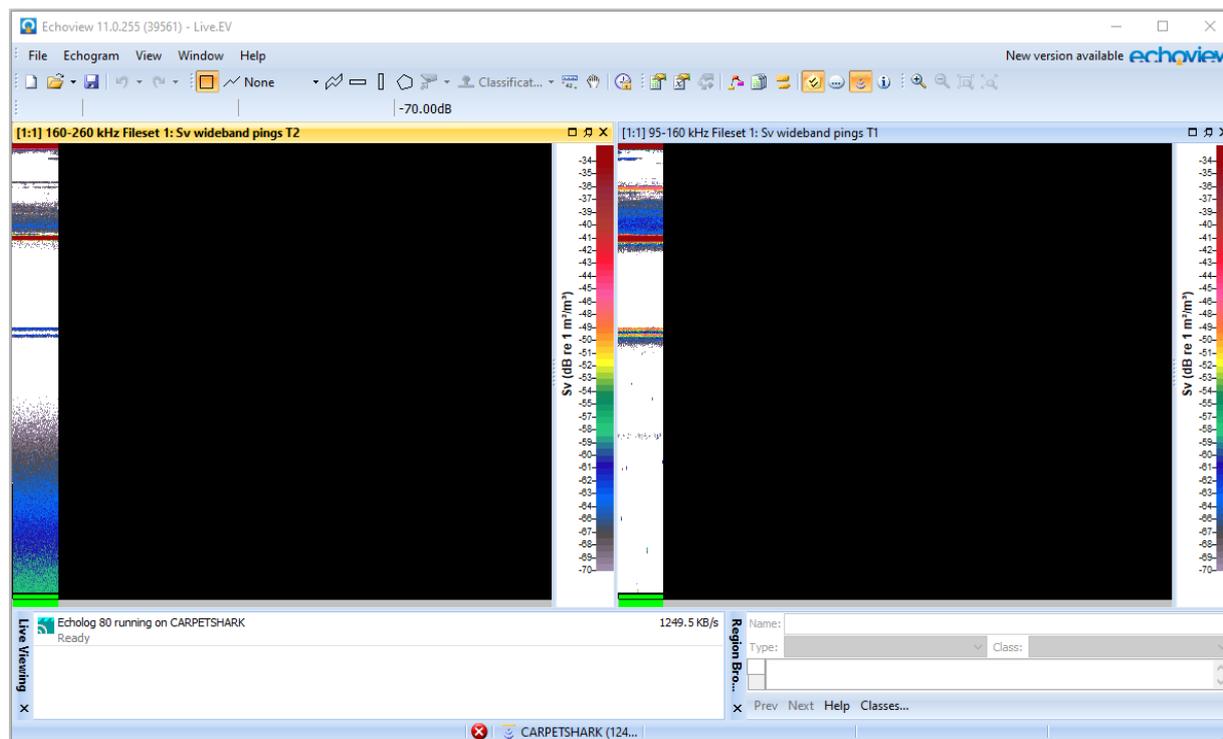


Figure 8. Live Viewing two echograms in Echoview.

## Stopping live viewing

You stop live viewing when:

- the EV file for live viewing is closed or Echoview is closed
- the Echolog application is closed (on closing, the Echolog application is removed from the list within the Live Viewing dialog box and no new data will be received by Echoview)
- Echoview can't communicate with the Echolog application, e.g. one of the above situations occur or a machine/network failure occurs
- **Stop live viewing** is selected on the **Shortcut** menu of the Live viewing dialog box.

**Note:** Stopping the transmission from the echosounder (or Echolog 80) suspends live viewing. Echolog will append to the data file if it receives additional data from the echosounder.

17. Switch to Echolog. Click the close box . The Echolog dialog box is displayed to ask if you wish to exit from Echolog.
18. Click **Yes**. Echolog closes.
19. Switch to Echosim 80 and close the Echosim 80 window.
20. Close the EV file.

## Further information

- For further information about live viewing, refer to the Echoview Help file "About live viewing", "Using live viewing" and "About Echolog applications".
- When a new EV file is automatically created during live viewing, Echoview will check for suitable templates in the live viewing templates folder. More information about live viewing templates can be found in the Echoview Help file "Using live viewing templates".