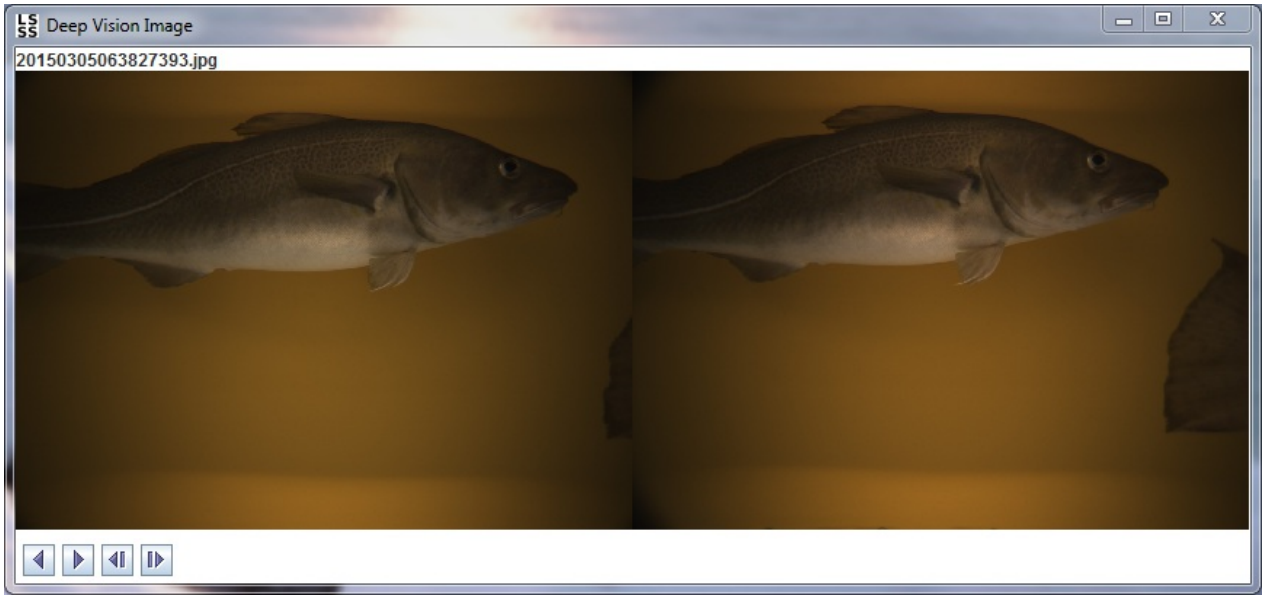


DeepVision

User Guide

Version 2.4.0

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Deep Vision

Deep Vision is a LSSS plugin for visualizing data through new views, and overlays.

Survey configuration

Data files

The **DeepVisionDataDir** is the root directory of where the Deep Vision files are stored. The system will scan for Deep Vision files in the root directory and one level down. All files in those directories that meet the following criteria will be selected:

- The file type is xml.
- The root element of the xml-document is called deepvision.

Additional user defined data files

For each Deep Vision file, users can add an xml-file with additional information that can be displayed in LSSS. Currently, the user can define filled circles that can be shown below the Deep Vision path. These circles can for example be used to indicate species type and amount. The additional files must meet the following criteria:

- The file must be placed in the same directory as the corresponding Deep Vision file.
- The file type is xml.
- The root element is called lsss-deepvision

The format of these additional files is illustrated in the example below:

```
<?xml version='1.0' encoding='utf-8'?>
<lsss-deepvision>
   <frames>
      <frame time="20150305065645195" color="DC143C" size="20">
   </frames>
</lsss-deepvision>
```

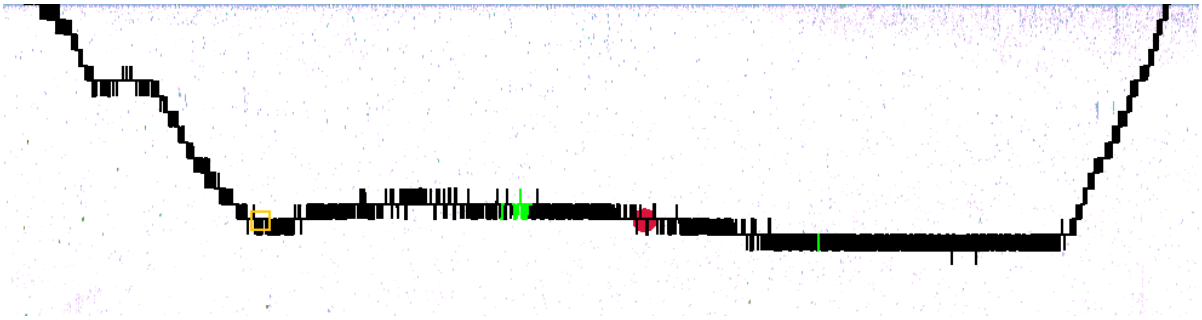
The `time`-attribute is used to associate to the corresponding frame in the Deep Vision file. The color is defined as a hex triplet, and the size is the diameter of the circle in units of pixels.

Deep Vision overlays

These are the Deep Vision overlays added to the existing LSSS echogram view.

Echogram overlays

Deep Vision path

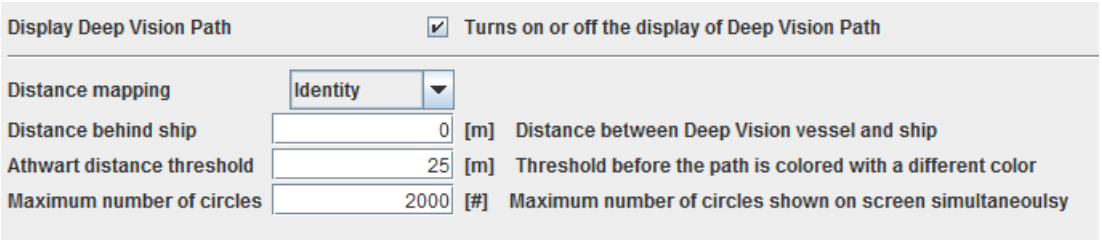


This overlay shows the approximate path of the Deep Vision vessel. The coloring depends on the athwart distance of the Deep Vision path compared to the ship's path. Green color indicates starboard, red indicates port and black indicates that the athwart distance is below a user specified threshold.

The orange rectangle shows the location of the currently selected Deep Vision frame.

The user can add additional information that can be displayed together with the Deep Vision path information. In the example above, a red filled circle has been defined at one of the Deep Vision frames.

The configuration window is shown in the figure below:



- **Distance mapping**: Switches how the Deep Vision path maps to the echogram. Choices:
  - Identity: The Deep Vision position is a fixed distance behind the ship.
  - Geographical: The recorded Deep Vision positions are used.
- **Distance behind ship**: The fixed distance behind the ship of the Deep Vision vessel. Only used when the distance mapping is set to Identity.
- **Athwart distance threshold**: The threshold for the athwart distance when the path will be colored differently.
- **Maximum number of circles**: The maximum number of circles drawn below the path simultaneously. Reducing this number may improve the rendering speed.

Views

These are the Deep Vision views available in LSSS.

Image view module
This module displays the Deep Vision images.

Deep Vision image

This module shows the images recorded by Deep Vision for the currently selected frame.



The buttons below the images are from left to right:

- Play backwards
- Play forwards
- Step backwards. Hold to step several frames.
- Step forwards. Hold to step several frames.

In addition, the mousewheel can be used to step forwards and backwards.

Options:

- Show left image: Shows the left eye image.
- Show right image: Shows the right eye image.
- Show only images marked as active: Shows only the images marked as active in the DeepVision file. The play and step functionality will skip the inactive images if this option is enabled.