



23 July 2022

# DSV Alvin

## Imaging System

### Observer Camera Control UI – Quick Reference Guide

M. Skowronski

#### Scope

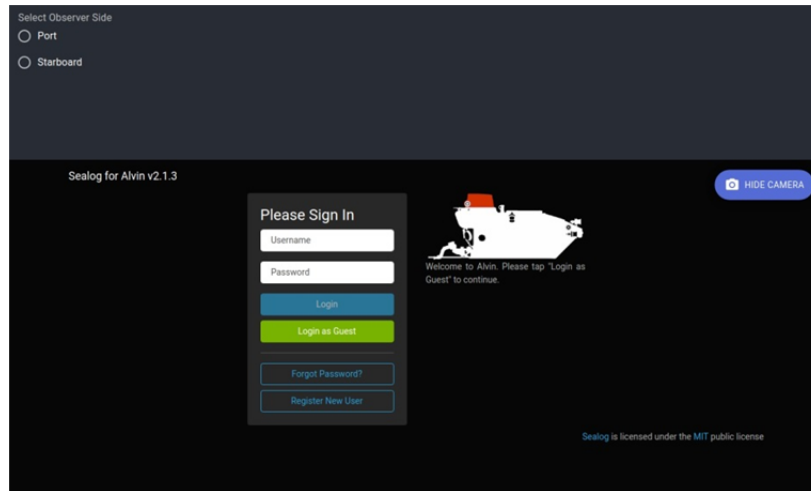
This document provides a quick reference guide that can be used by end users to help guide them in usage of Alvin's in-sphere imaging and camera control user interface.

#### Introduction

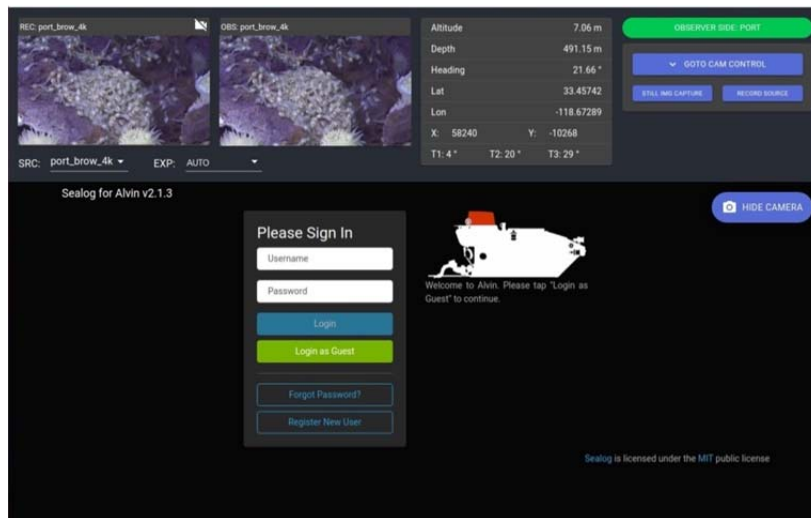
Although the imaging system's observer camera control interface and the Sealog interface are two independent entities, they run concurrently on the same iPad tablet using a shared, split screen display view.

## Guide

To access the observer camera control interface, in the upper left corner of the display, select which observer the camera control interface will be associated with (**Port** or **Starboard**).



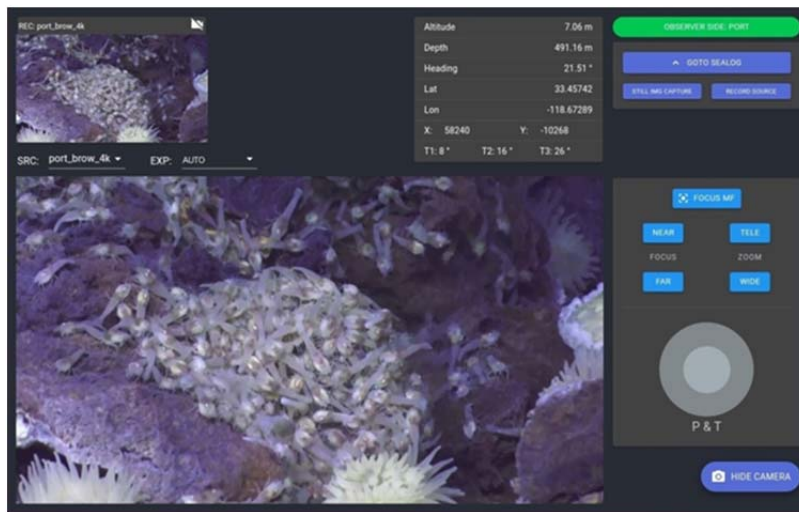
The camera control interface will appear in the top 1/3 of the split screen display view.



The small **[REC:]** video display in the upper left corner displays the video feed going to the recorders associated with the observer. The small center left **[OBS:]** video display displays the video feed currently being monitored by the observer. Vehicle navigation and sensor data will be displayed in the center right display.

**NOTE:** During initialization, the interface will connect to the default camera associated with the observer side.

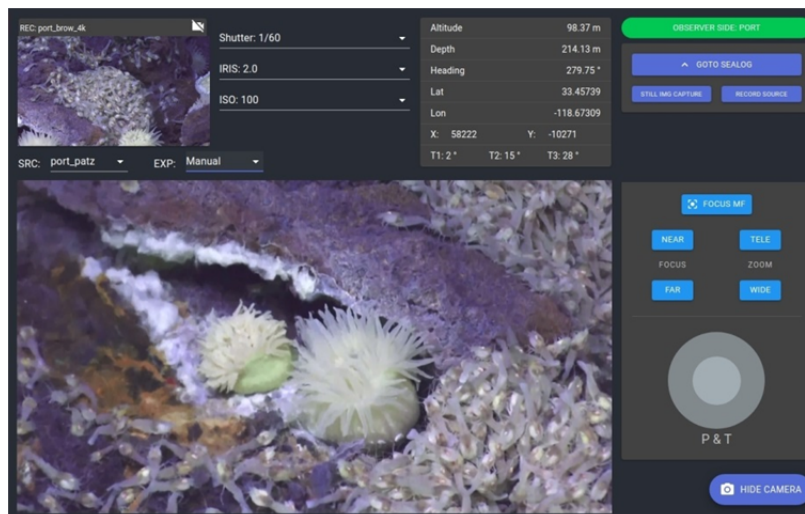
Select **[GOTO CAM CONTROL]** to open the camera control interface in full screen display view.



The video feed currently being monitored by the observer is now displayed in the large video display area and the various camera controls are displayed.

**NOTE:** Any controls not supported by the active camera, indicated by the **[SRC:]** drop down menu, will be disabled and hidden.

From the **[SRC:]** video source drop down menu, select a new camera for active monitoring.



**NOTE:** The video feed being displayed in the upper left corner has not changed.

**NOTE:** The camera settings for the selected camera will be queried and displayed in accordance with the camera exposure mode indicated by the **[EXP:]** drop down menu. Only settings associated with the current exposure mode will be displayed.

Depending on the exposure mode (Auto, Manual, Shutter Priority, Iris Priority), the active camera's shutter speed can be changed using the **[SHUTTER:]** drop down menu, the iris setting can be changed using the **[IRIS:]** drop down menu, and the iso setting can be changed using the **[ISO:]** drop down menu.

**NOTE:** Shutter Speed affects the crispness (motion blur) of the image. IRIS (also known as aperture or f-stop) affects the depth of field of the image. ISO (as known as gain) affects the light sensitivity of the camera.

Pressing the **[FOCUS {MF/AF}]** button will change the focus mode of the active camera between manual focus (MF) and auto focus (AF).

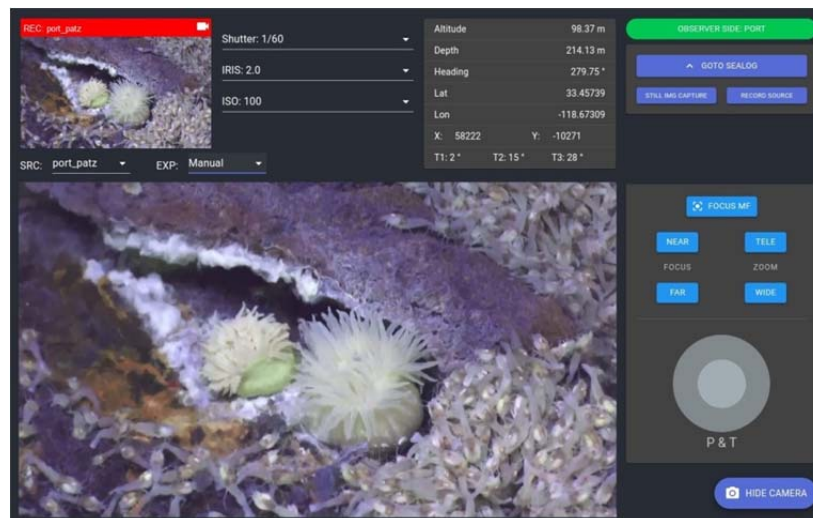
**NOTE:** The focus mode setting for the selected camera will be queried and indicated by the **[FOCUS {MF/AF}]** button. If the camera is in auto focus **[AF]** mode the **[NEAR]** and **[FAR]** Buttons will be disabled.

In manual focus (MF) mode, pressing the **[NEAR]** or **[FAR]** focus button once will result in a single-step change in the focus position of the active camera. Pressing and holding the **[NEAR]** or **[FAR]** focus buttons will result in a continuous change in focus position of the active camera (NEAR or FAR).

Pressing the **[TELE]** or **[WIDE]** zoom button once will result in a single-step change in the zoom position of the active camera. Pressing and holding the **[TELE]** or **[WIDE]** zoom button will result in a continuous change in the zoom position of the active camera (TELE or WIDE).

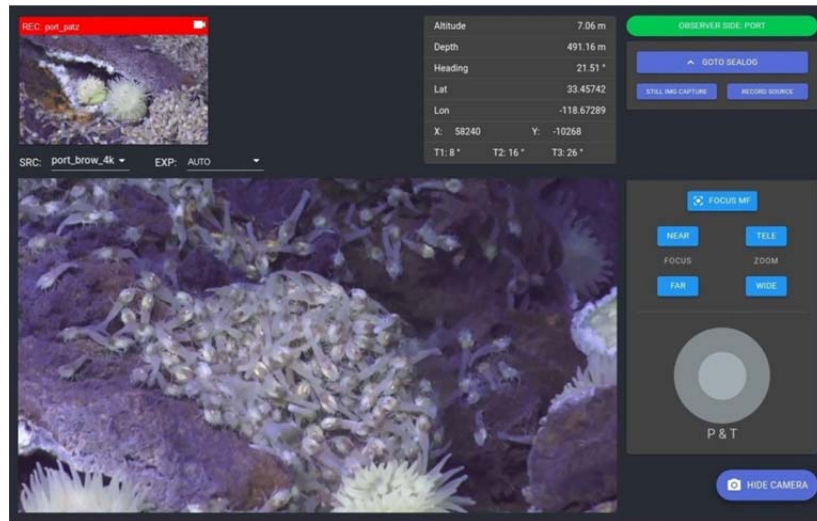
Selecting **[STILL IMG CAPTURE]** will capture a still image from the actively monitored video feed. The resolution of the still image will be the native resolution of the associated camera.

Select **[RECORD SOURCE]** to send the video feed currently being monitored by the observer to the observer's recording system and initiate recording. If the recording system was actively recording, the recording will be stopped and a new recording session will be initiated.



- NOTE:** The video feed displayed in the upper left corner changed to the same as the observers active video feed.
- NOTE:** Recorder status is displayed by the tally indicator located at the upper left corner of the interface. When actively recording, the tally indicator will be **red**.

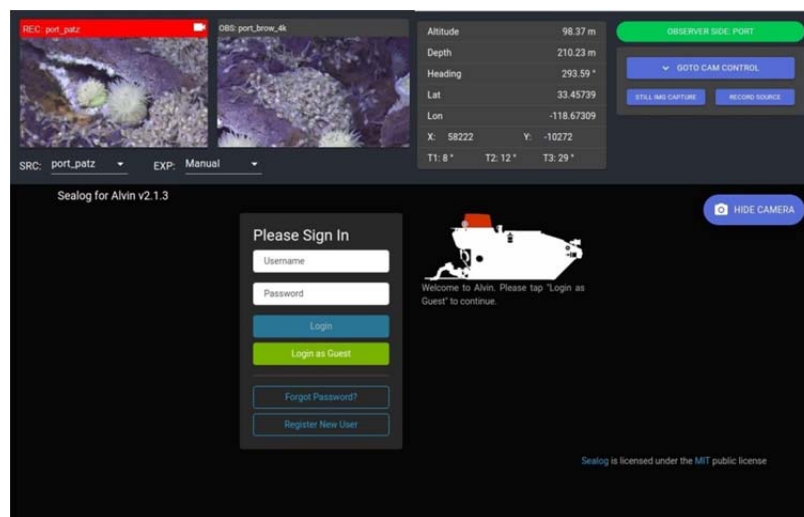
Use the source **[SRC:]** video drop down menu to select a new camera for active monitoring.



Settings associate with the newly selected active camera can now be changed without impact to the recorded video source.

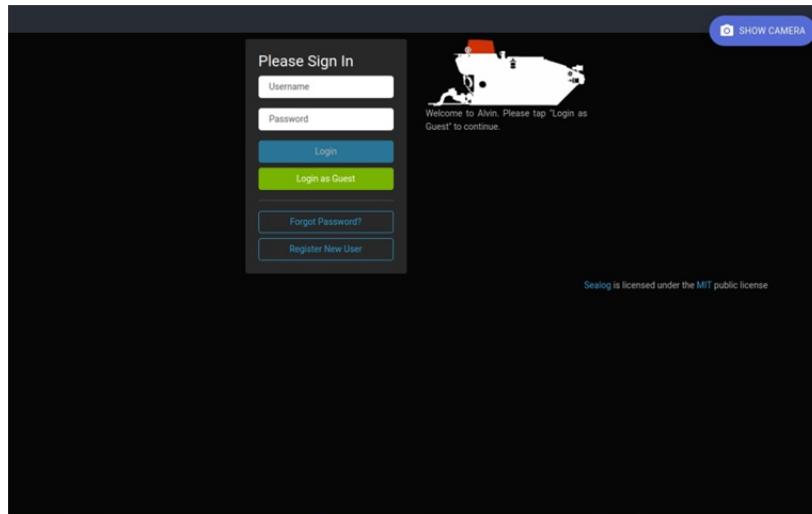
- NOTE:** The video feed being displayed in the upper left corner has not changed.
- NOTE:** The camera settings for the selected camera will be queried and displayed in accordance with the camera exposure mode indicated by the **[EXP:]** drop down menu. Only settings associated with the current exposure mode will be displayed.

select **[GOTO SEALOG]** to return to the camera control and Sealog split screen display view.

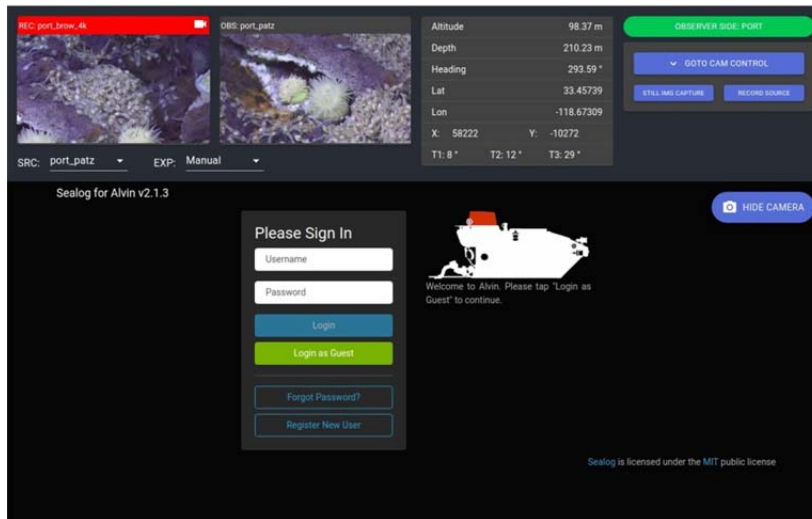


**NOTE:** The **[RECORD SOURCE]**, **[STILL IMG CAPTURE]**, video source **[SRC:]** drop down menu, and the exposure mode **[EXP:]** drop down menus are still active and accessible.

Select **[HIDE CAMERA]** to view Sealog in full screen display view.



Select **[HIDE SEALOG]** to return to the camera control and Sealog split screen display view.



Select **[GOTO CAM CONTROL]** to return to the camera control interface in full screen display view.

