Ocularis Dewarping Plug In Installation Guide

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1 About This Guide

This document provides instructions on how to use Ocularis Plug Ins for cameras with 360° or 180° lenses.

1.1 Related Documentation

Related documents are listed below.

Table 1-1: Related Documents

Document Name	Version	File Type	Date
Ocularis Administrator User Manual	5.8	PDF	October 2019
Add-on Documentation			

2 Introduction

Cameras using 360° or *panomorph* lenses have a 360°x 180° field of view. When video from these cameras is displayed on a two dimensional computer screen, the original image appears as a dome or ellipse and is not very usable. Ocularis can *dewarp* or flatten video from these lenses and display them in ways that make them quite useful. One lens strategically positioned in the center of a room can cover the same area where multiple cameras were once required. Operators can operate the field of view from a 360° lens similar to that of a PTZ camera. Meanwhile behind the scenes, Ocularis records the full 360° image so that investigations can access the entire image regardless of the field of view that a particular operator happens to be displaying.

Each lens manufacturer approaches their panomorph algorithm differently and therefore, each requires a unique plug-in (additional software component) in order to properly display video. If you do not see your supported camera in the 'Dewarping Type' drop-down list in the Camera Properties pop-up within Ocularis Administrator, check the software downloads page on the website. (www.onssi.com/software-downloads/).

3 Plug-In Installation

Dewarping plugs-ins must be installed on the Ocularis Base server. If your Base does not have internet connectivity, download the software from a different computer and bring the installation file to the Base server.

1. Go to www.onssi.com/software-downloads/ and scroll the page until you see *Ocularis Client* Dewarping Plugins.
2. Click the plug-in you wish to install. It will be downloaded locally using the browser's normal file download steps.
3. If you are not already located on the Ocularis Base server, bring the downloaded file to that server.
4. Click the .exe file to launch the installation wizard.
5. Follow the on-screen prompts and click **Finish** when done.

The plug-in should now be visible in the 'Camera Properties' dialog in *Ocularis Administrator*.

When an *Ocularis Client* user logs into the Base, the necessary .dlls are downloaded from the Base to the client machine. At this time viewing dewarped images is supported only on *Ocularis Client* (not with *Ocularis Viewer*, *Ocularis Web* or *Ocularis Mobile*).

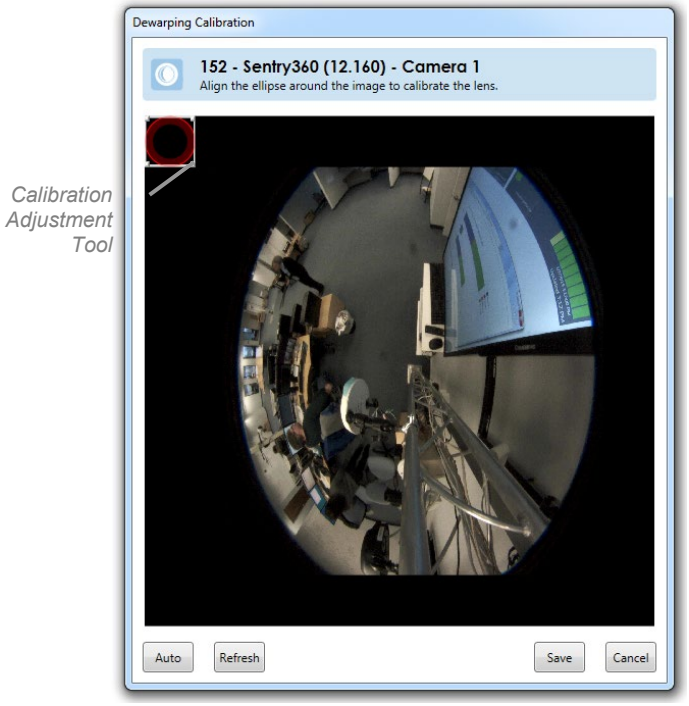
As plug-ins for other manufacturers are created they will be available for download on the Qognify website.

4 Plug-In Configuration

In order to take advantage of 360° lenses, the camera with the lens needs to be configured using *Ocularis Administrator*. The lens' corresponding driver needs to be selected along with the camera's orientation and layout.

1. On the *Ocularis Administrator* **Servers / Events** tab, right-click the camera with the 360° lens and select 'Properties'.
2. In the *Dewarping Type* drop-down list, select the plug-in for the corresponding camera or lens. If you don't see the plug-in for the manufacturer of your camera, install it on the Base Server. (See
3. *Plug-In* Installation above.)
4. Select the positioning of the camera mount under *Orientation*. Choices are: Ceiling, Wall, Floor
5. Select the default layout for the image under *Layout*. Choices will vary based on manufacturer. Examples include: Single, Quad, Panorama Narrow, Panorama Wide or VCam. This is what will be displayed in *Ocularis Client* when the camera initially appears or when a view is reloaded.
6. For Sentry360 and Vivotek cameras, calibration must be performed. Click the **Calibrate** button.
    a. A spherical snapshot should appear showing the native fisheye view from the camera. A calibration adjustment tool in the form of a red circle appears in the upper left corner.

Figure 1 Calibrate a Sentry360 Camera



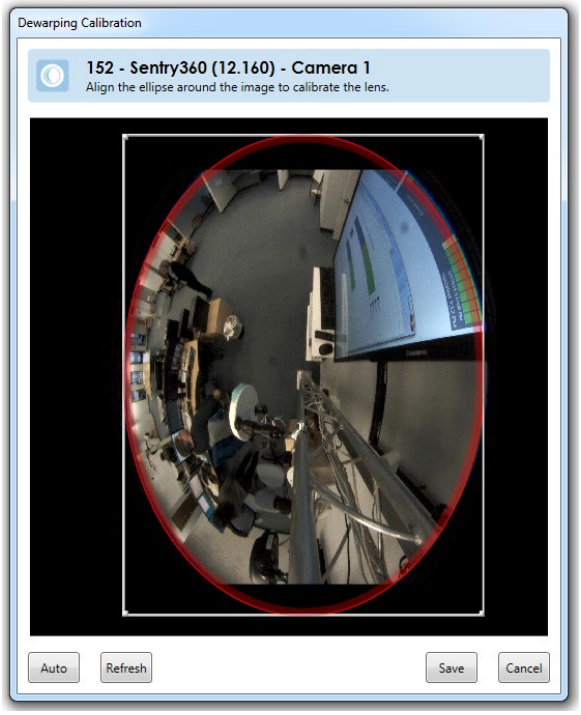
The goal is to use the Calibration Adjustment tool to outline the area of view. This may be done manually or automatically.

***Note**: The image that appears may not be the most recent. Click the Refresh button to take a current snapshot of the camera's image.*

b. For manual adjustment, use the mouse to drag the calibration adjustment tool across the screen. Use the mouse to stretch the edge of the calibration adjustment tool so that the outline matches that of the image.

c. For automatic adjustment, simply click the **Auto** button on the bottom left portion of the pop-up. You may further provide manual adjustments if you do not like the automatic selection.

Figure 2 Sentry360



d. When finished, click **Save**.

7. If you are finished configuring Camera Properties, click **OK**.

The user will now be able to take advantage of the expanded field of view when viewing via *Ocularis Client*.