

Setup autostereoscopic display

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Hardware

1. Connect 3D Global’s autostereoscopic 3D display device via HDMI or DP cable to the PC
2. Connect the tracking camera via USB cable to the PC
3. Find the ***Autostereoscopic Display ID***. It should be on the display's back side and looks like 05F, 05D, S1D, 05G or something similar.



4.

Software

3D Global View Optimizer installation

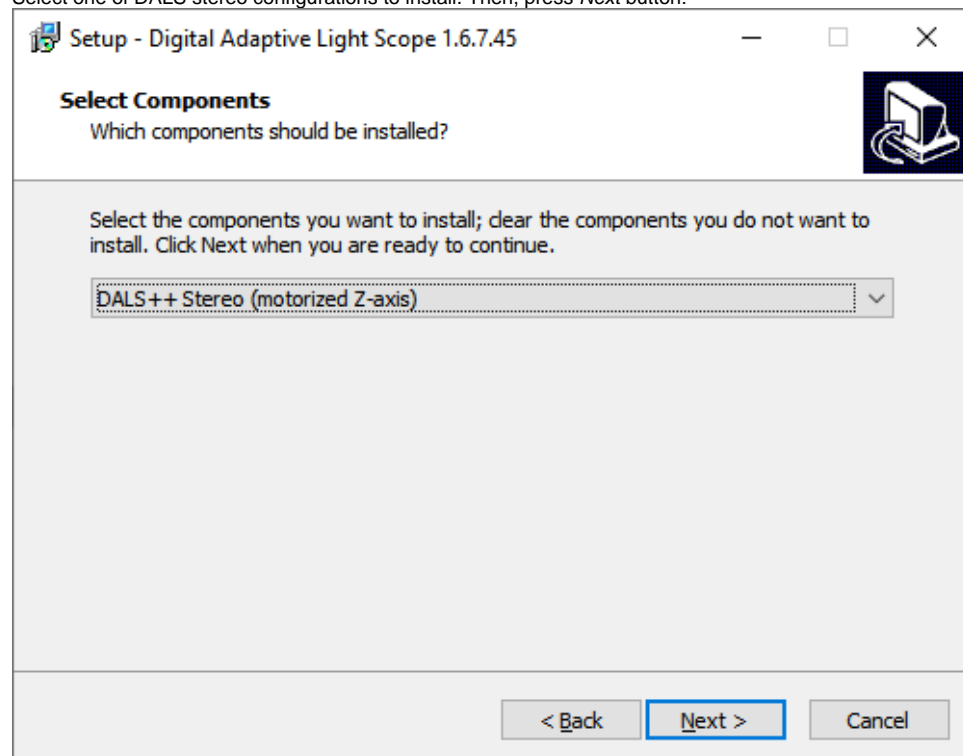
Install the latest version of the [3D Global View Optimizer](#) software and allow the installation of the camera driver.

DALS application installation

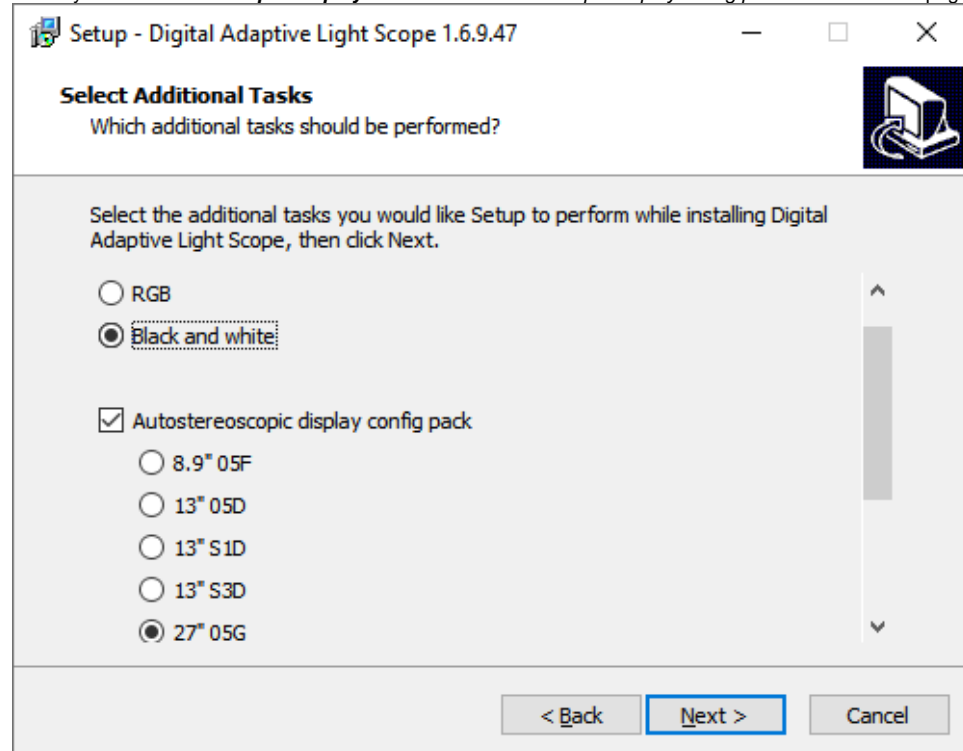
Install DALS for stereo configuration:

1. Run the DALS installer

2. Select one of DALS stereo configurations to install. Then, press *Next* button:



3. Select your **Autostereoscopic Display ID** in the "Autostereoscopic display config pack" list of the next page. If you don't see your ID, uncheck the "Autostereoscopic display config pack" checkbox. Then, press *Next* button.



4.
5. Proceed DALS installation.

Manual configuration files setup for displays which ID are not included to the installer

If you **did not find** your **Autostereoscopic Display ID** in [the list of IDs included to the installer](#):

1. Find the folder with config files for the **Autostereoscopic Display ID** here: <https://www.dropbox.com/sh/17bm9mt81gqbli5/AADJpreFmNRHmDayjVcZ2vava?dl=0>. For example, for S1D it is "13 S1D".
2. Copy all files from this folder to the '%PROGRAMDATA%\OctoNus Software\Digital Microscope' folder.
3. Find a copied file with '.reg' extension. Run it and then press Yes. It will update the Windows Registry to add information about the autostereoscopic display.

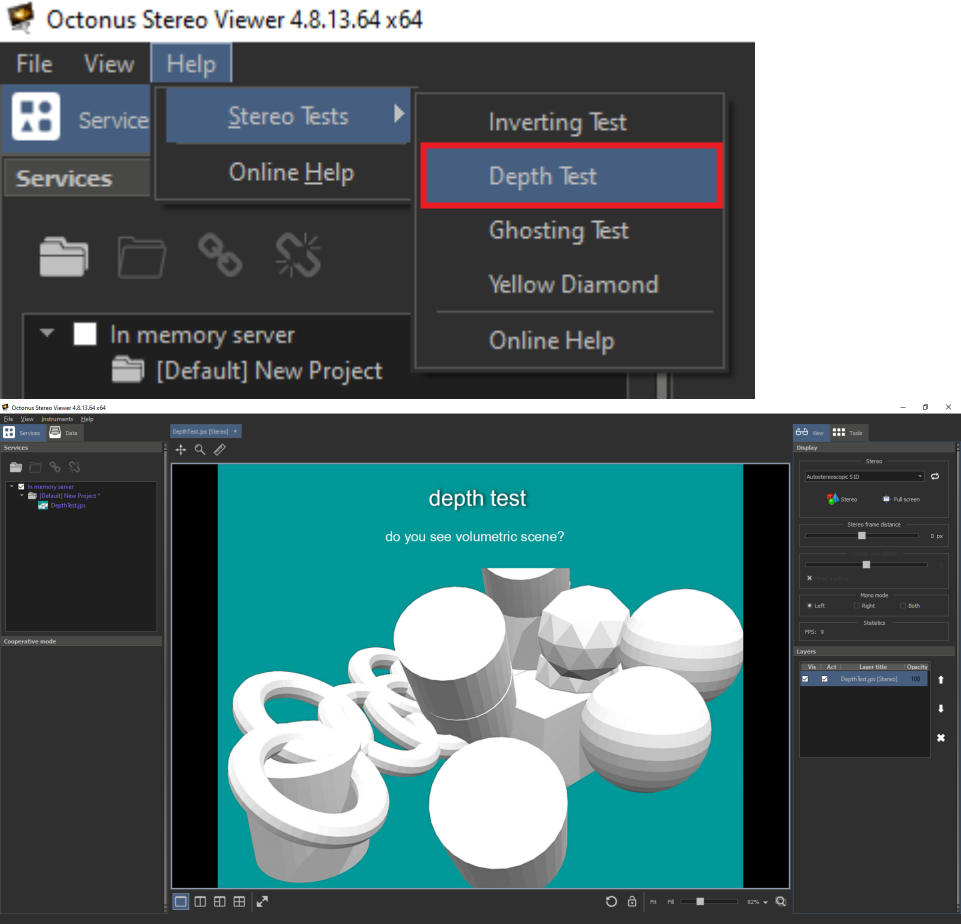
Adjust autostereoscopic visualization to achieve best stereo quality

If the stereo on your workstation is configured incorrectly, you will not be able to see a stereo image via the **DALS** app: ghosting will be very noticeable, left and right pictures will not be combined into one 3D image etc.

Adjust stereo for displays with a head tracking camera

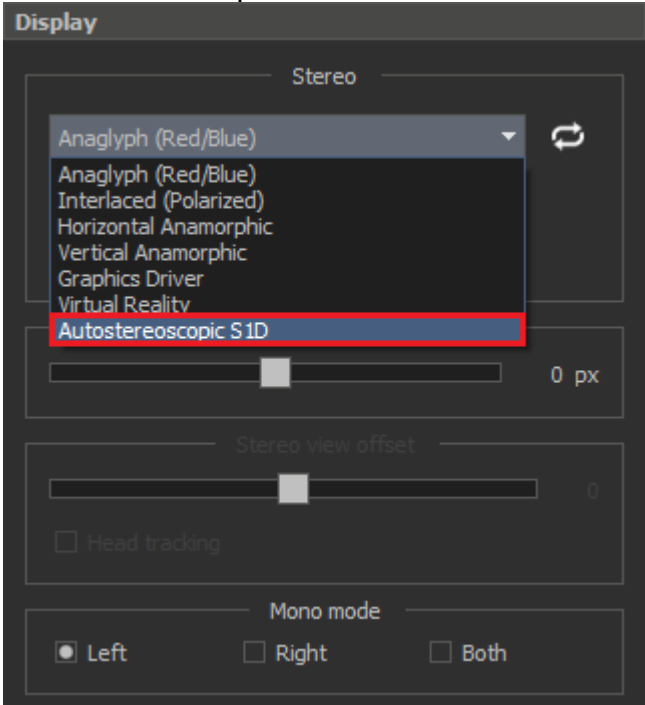
To configure autostereoscopic visualization with head tracking, you should do the following:

1. Run **DALS** on regular display
2. Open a stereo test, for example, the **Depth Test** (Main menu: **Help Stereo Tests Depth Test**)

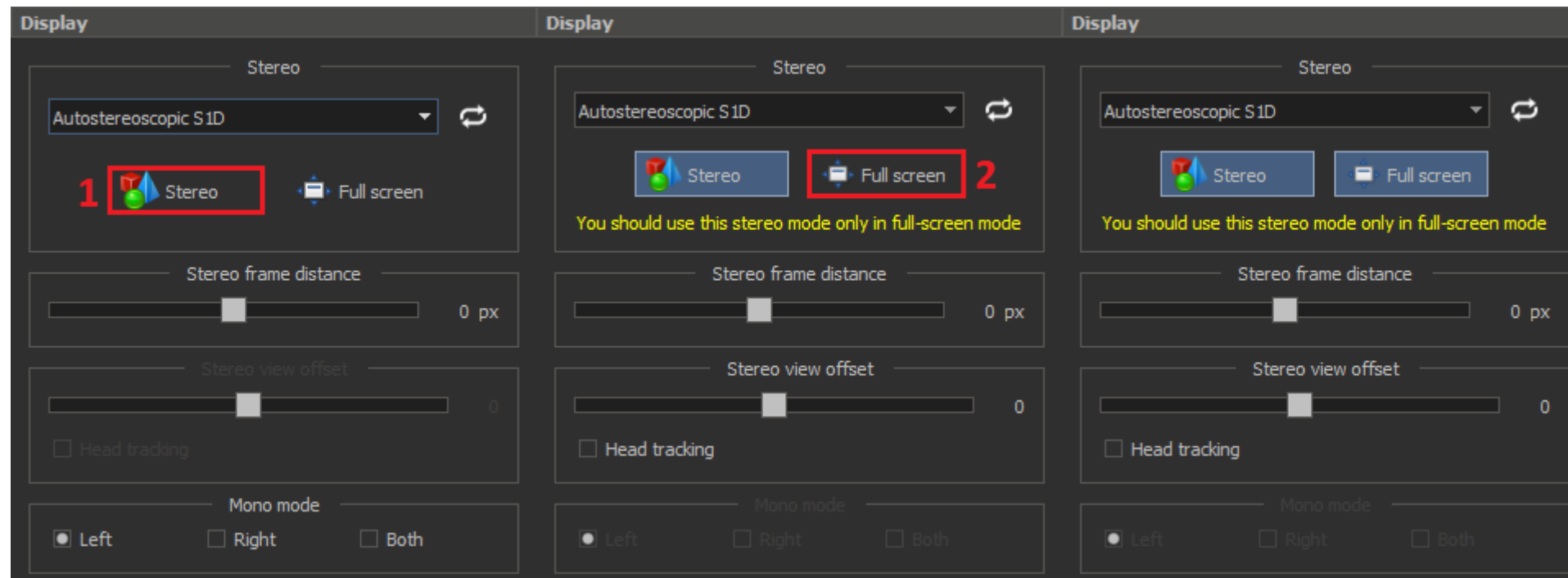


⚠ if you don't see the right panel, just close the 'depth test' image and open it again

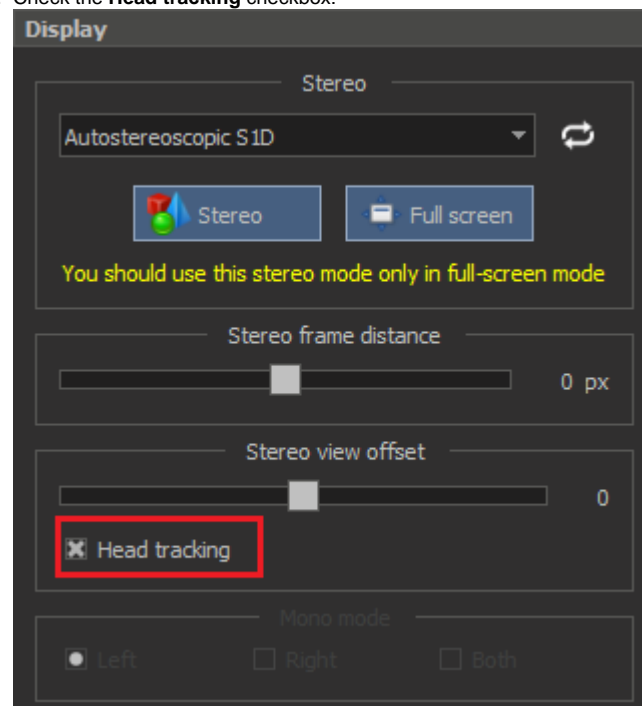
3. Activate **AutostereoscopicS1D** full screen mode with checked **Head tracking** flag:
 - a. Select the **AutostereoscopicS1D** mode in the list of available stereo modes



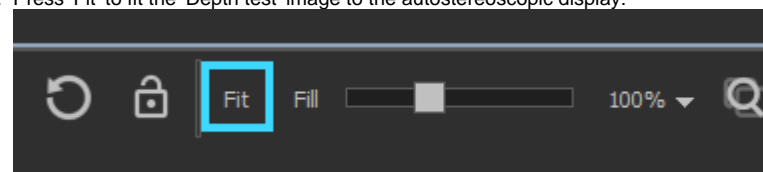
- b.
- c. Press the **Stereo** button and press the **Full screen** button:



- d.
- e. The video data will be displayed on the second autostereoscopic display in full screen mode
- f. Check the **Head tracking** checkbox:

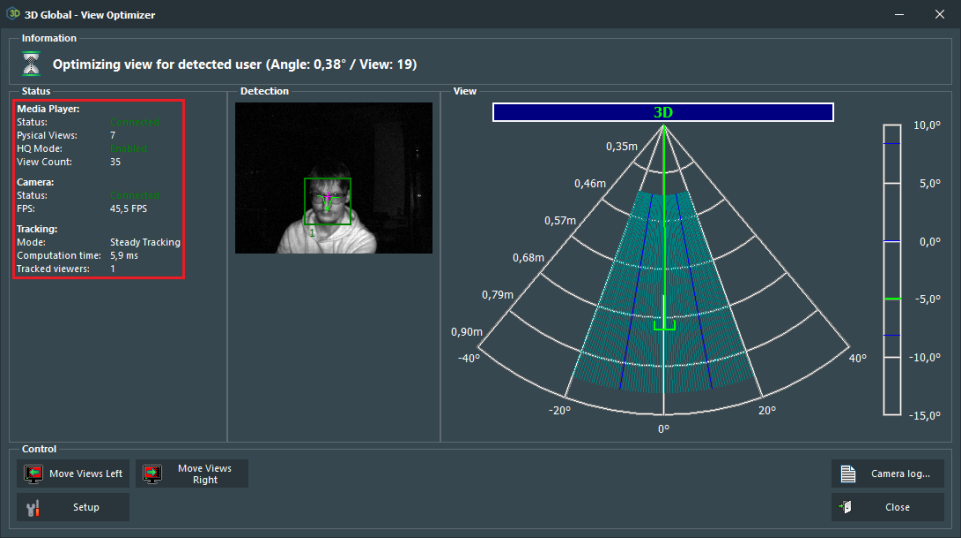


- g.
- h. Press 'Fit' to fit the 'Depth test' image to the autostereoscopic display:



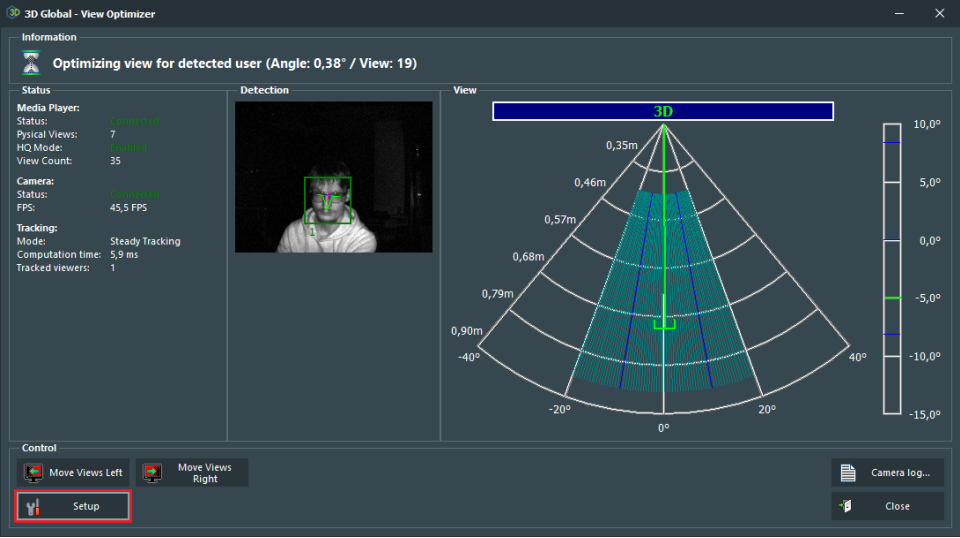
- i.

4. Open **3D Global View Optimizer**. Check if head tracking works when position of your head is inside the shaded area:

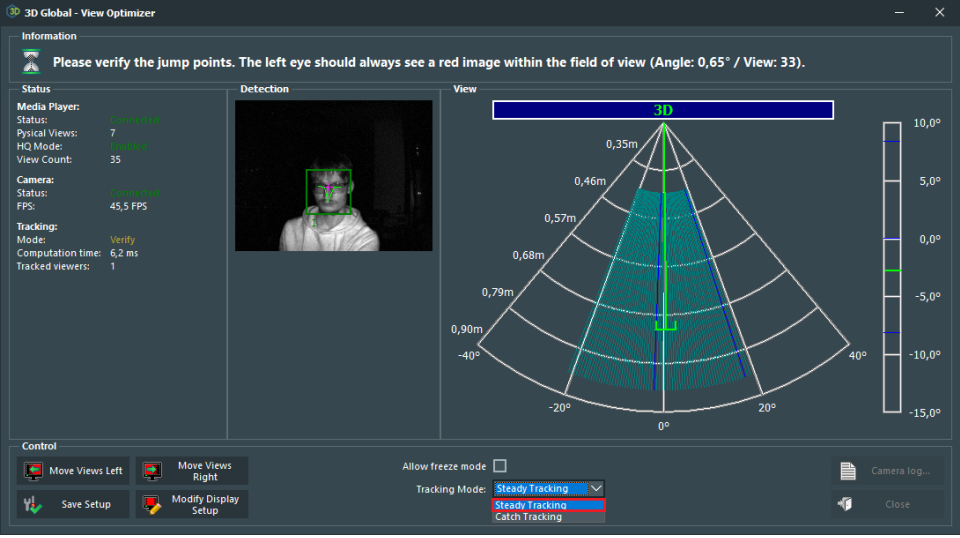


Also, please check these parameters:

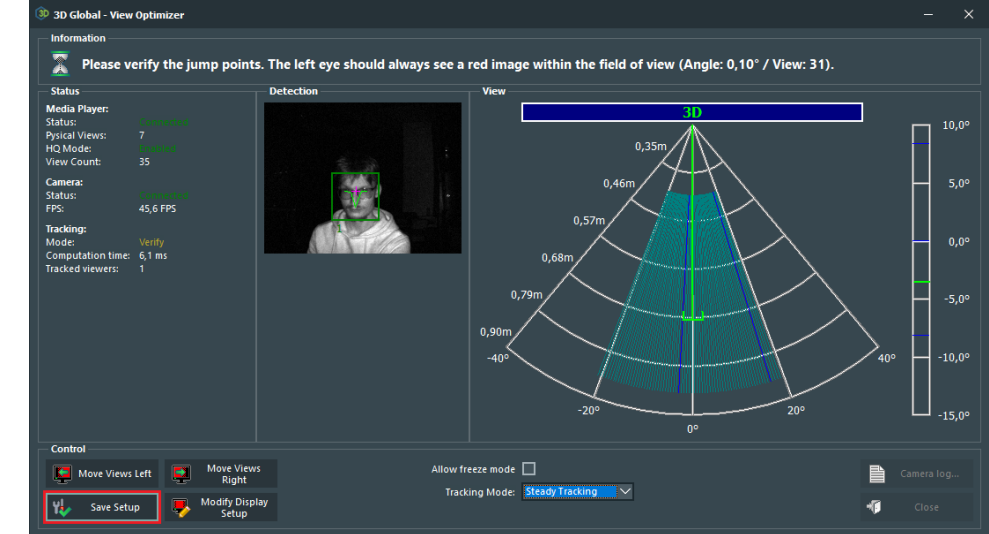
- a. **Media Player** status is connected
 - b. **HQ mode** is enabled
 - c. **Camera** is connected
 - d. **FPS** 35
 - e. **Tracking mode** is **steady tracking**
5. If another tracking mode is selected, please follow these additional steps:
- a. Click the **Setup** button



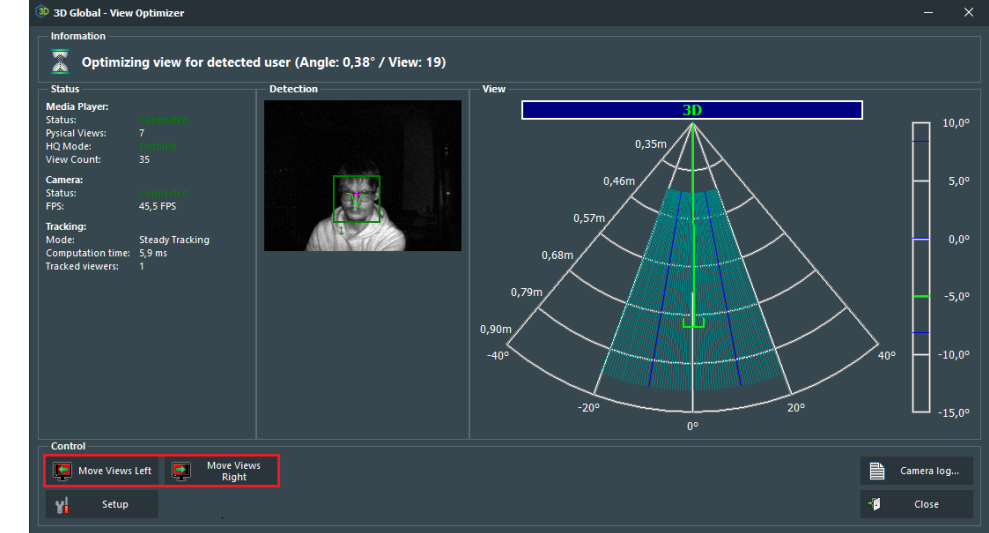
- b. Select the **Steady Tracking** item from the list of available tracking modes



c. After that click the **Save Setup** button



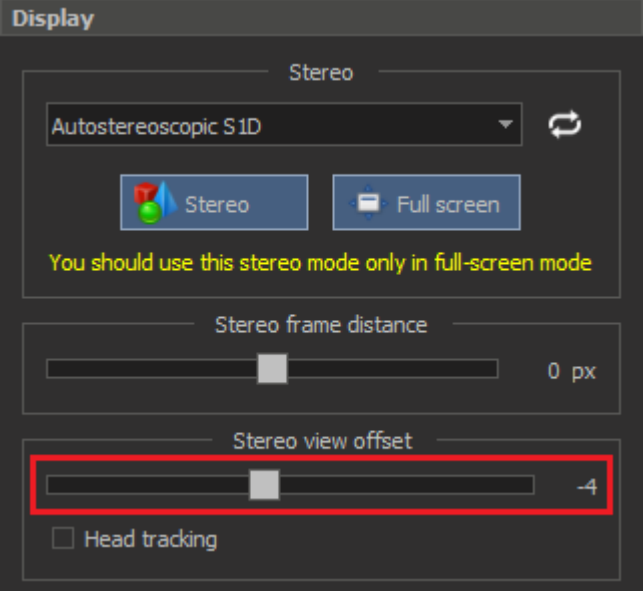
d. Adjust the **View offset** to see the right stereo using the **Move Views Left** and **Move Views Right** buttons:



Adjust stereo for displays without a head tracking camera

Procedure is the same, but:

1. Uncheck "Head tracking" checkbox in the OSV
2. Adjust stereo view using the appropriate slider in the **DALS** or **Ctrl+Alt+Left** / **Ctrl+Alt+Right** shortcuts:

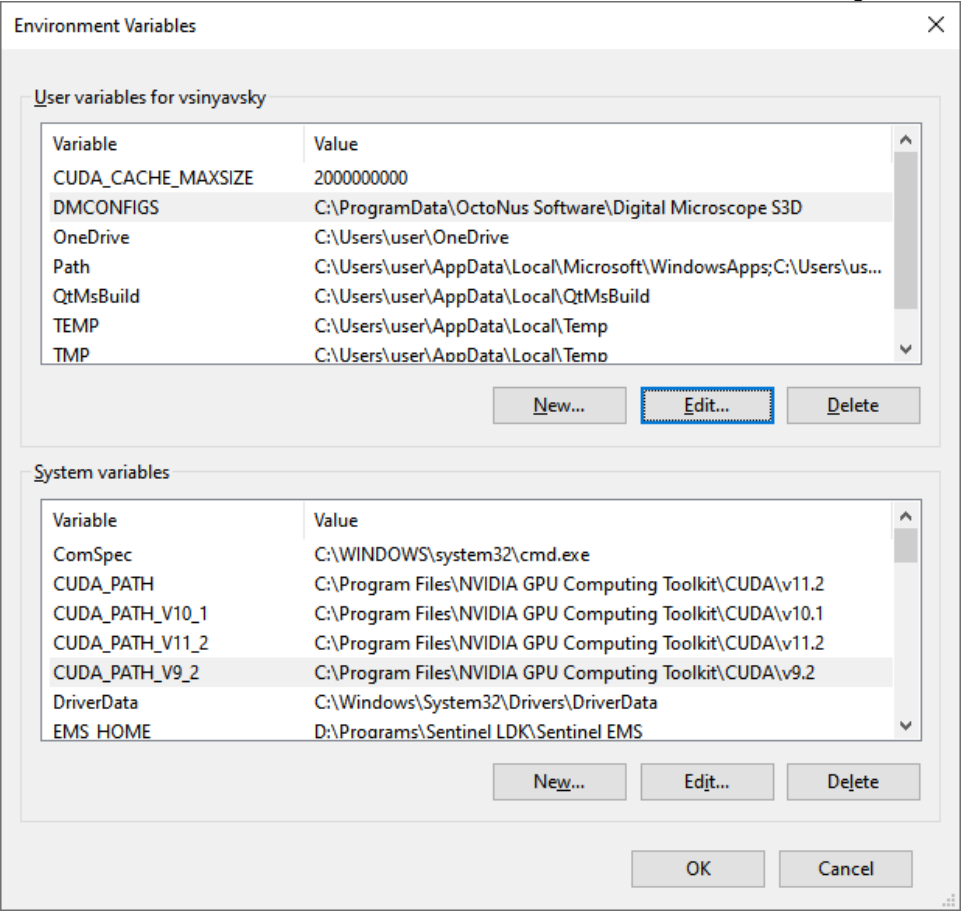


Configure 2 and more autostereoscopic displays with different IDs connected to one computer

Because of different '.reg' files for different IDs of autostereoscopic displays we have to create several Windows Users: one Windows user account for each unique **Autostereoscopic Display ID**.

Also it is necessary to separate **DALS** configuration folders for these users. So, got each Windows user account where you want to setup autostereoscopic display configuration:

1. Log in to the Windows User
2. Copy **already configured** DALS configuration folder to **new DALS configuration folder**.
 - a. For example, copy whole "%PROGRAMDATA%\OctoNus Software\Digital Microscope" folder the to the folder "%PROGRAMDATA%\OctoNus Software\Digital Microscope S3D".
3. Find necessary display configuration files corresponding to the autostereoscopic display for this Windows User as written in section [above](#) and copy them to **new DALS configuration folder**.
4. Open 'Environment Variables' in the Windows settings
5. Add 'DMCONFIGS' variable into the **User** variables section and set its value to **new DALS configuration folder**:



In case of problems with setup 2 or more autostereoscopic display, ask developers for help.