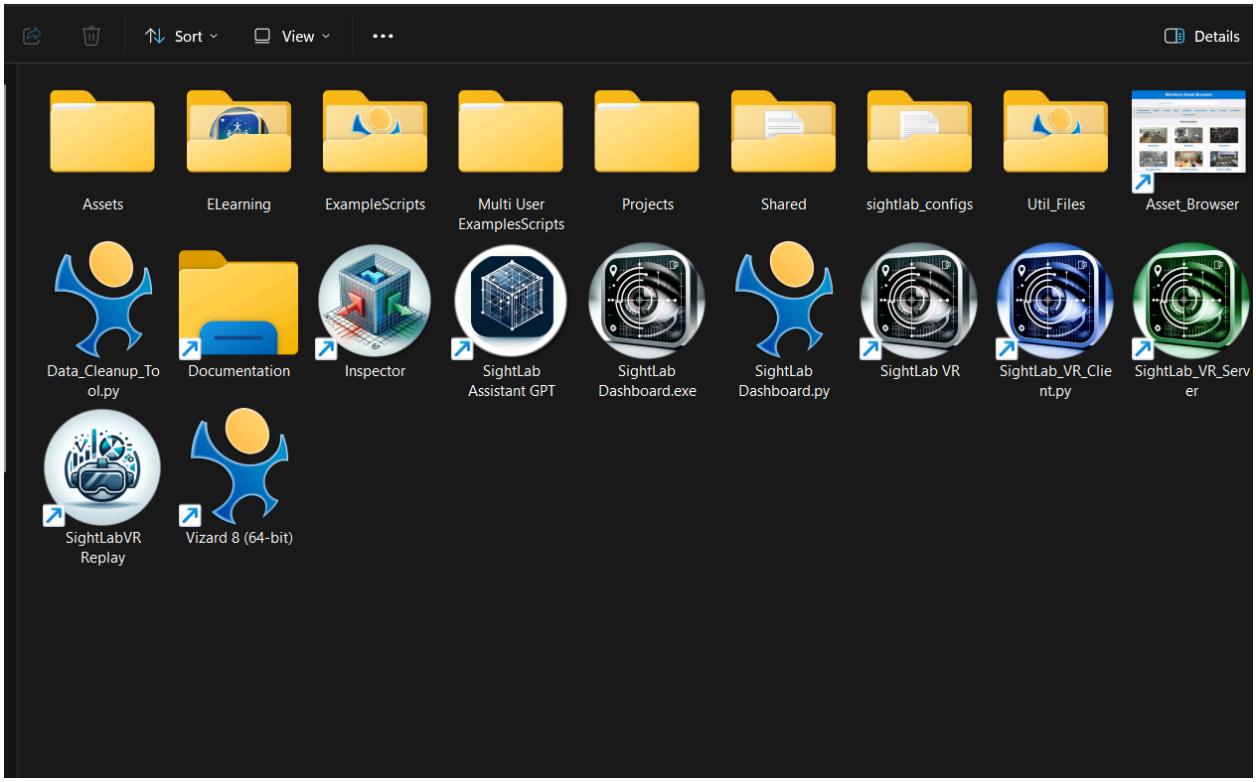
Creating a New Scene

This guide will walk you through the process of creating and setting up a scene in SightLab VR. Whether you're working with 3D models or 360 media, this will help you get started with your project. SightLab experiments can be set up with a GUI, with code, or a combination of both.

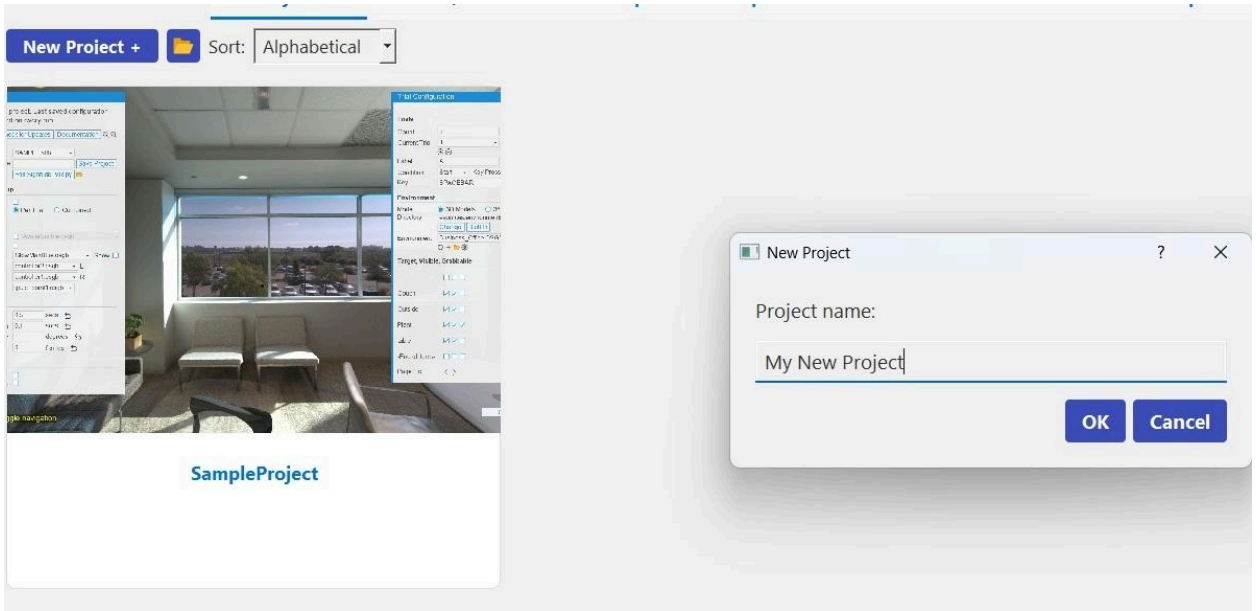
Setting Up Your Project

New Project (2.8.0 and higher)

Open the dashboard either from the desktop shortcut or by double clicking on SightLab Dashboard.py



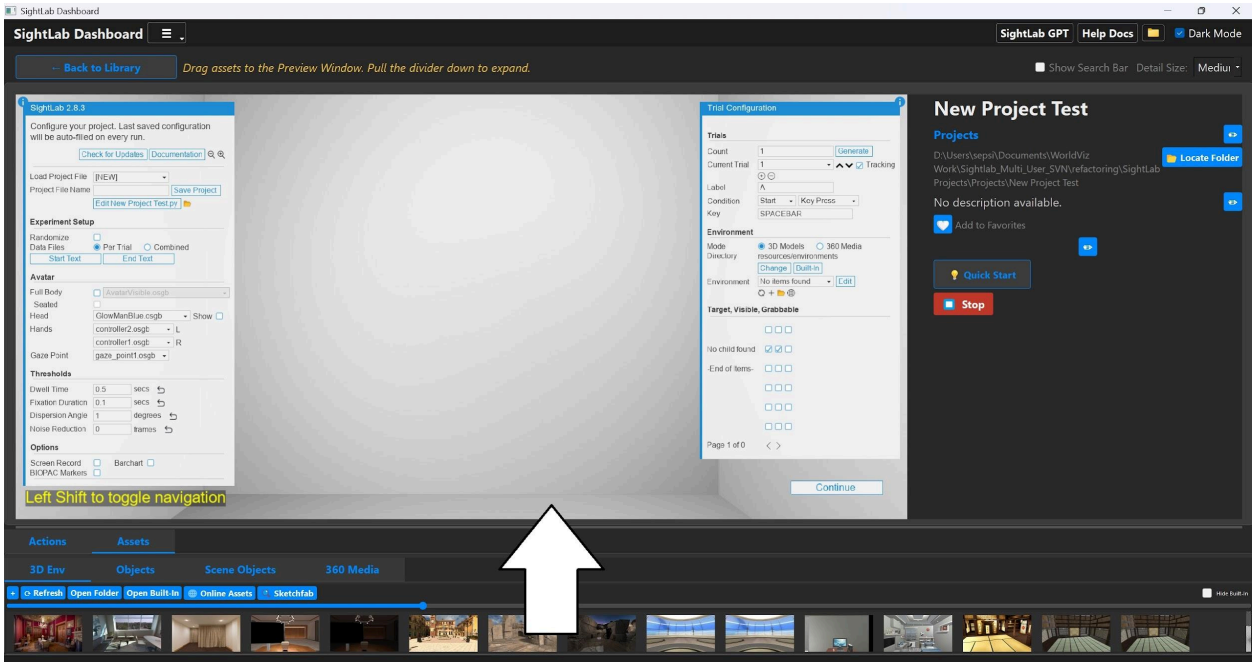
On the **Projects** tab in the Dashboard, click **New Project** and give it a name.



Add Assets

Drag and drop from the **Assets** library to the preview window to add 3D Models or 360 Media. See Getting 3D Models and Assets or the Asset Browser for some places to gather assets. You can also add more assets by dragging them into the Assets browser or directly searching Sketchfab.

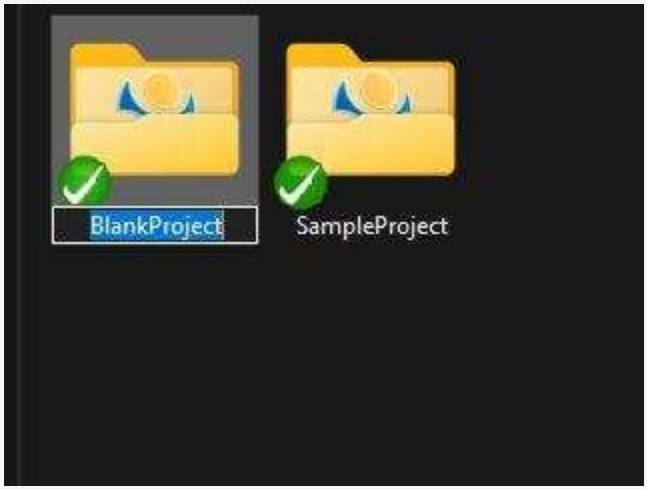
Note: If you don't see the editor window, click "Edit and Run" — it should launch by default.



Earlier Versions (before 2.8.0)

The SightLab projects folder is by default in `Documents/SightLab2`

- **Create Your Project Folder** (can use one of these options):
    - Make a copy of the "BlankProject" folder (recommended).
    - Use the SightLab SampleProject
    - Create a new folder and copy over essential files:
        - SightLab_VR.py
        - SightLabVR_Replay.py
        - A folder called `Resources` with sub-folders for `environments` and `media`

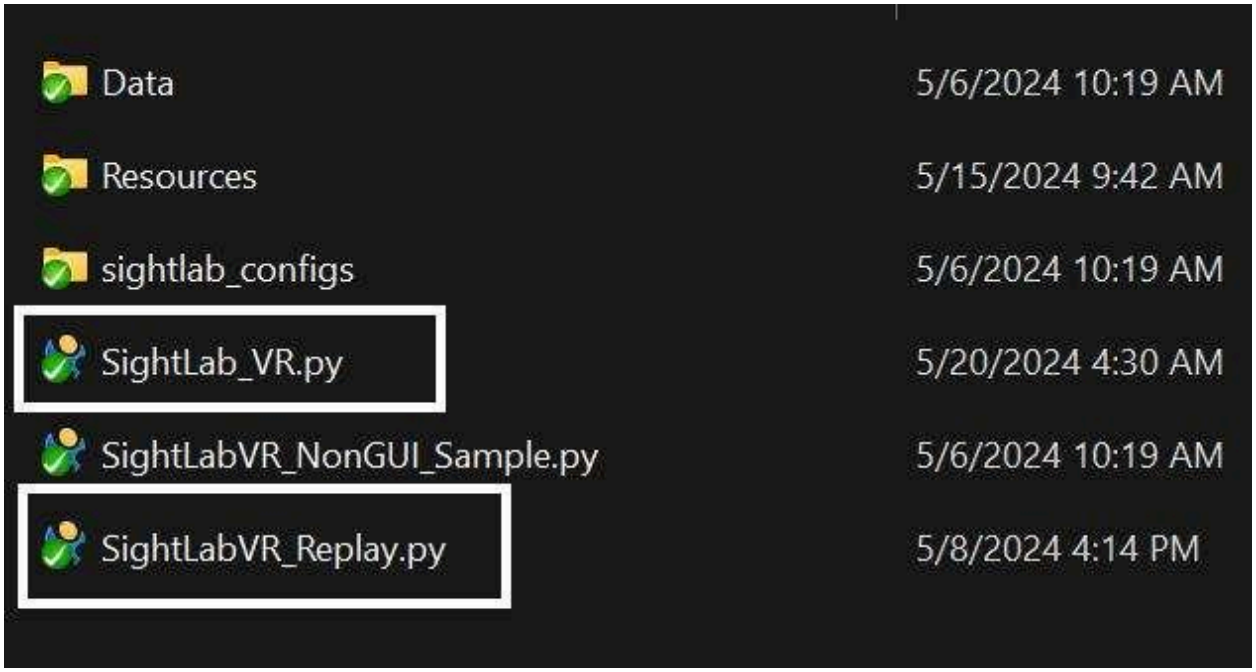


Note: The `sightlab_configs`, `Data`, and `recordings` folders will be created automatically when you first run your session.

While you can place your project folder anywhere on your computer, the recommended location is within the SightLab projects folder.

Key Files

- **SightLab_VR.py**: Use this for creating and running your project and leverage the GUI (note that SightLab can also be attached to any existing Vizard or SightLab script).
- **SightLabVR_Replay.py**: Use this for replaying your project.
- **SightLabVR_NonGUI.py**: A template for creating a scene using only code



Add Resources

2.8.0 and higher

Assets can be added by dragging and dropping from the Assets library into the preview window, or by dragging files directly into the Assets browser. You can also search Sketchfab directly from the editor.

Earlier Versions

- Add your 3D models to the `resources/environments` folder (see below for editing the models).
- Add media files to the `resources/media` folder.



- A good place to get started if you don't have any assets is the Worldviz Asset Browser.
- You can also use included assets in the Sample Project or click "Built In" for using the built-in resources (note: "Built In" resources would need to be taken out of the `sightlab_resources` folder before they can be modified).

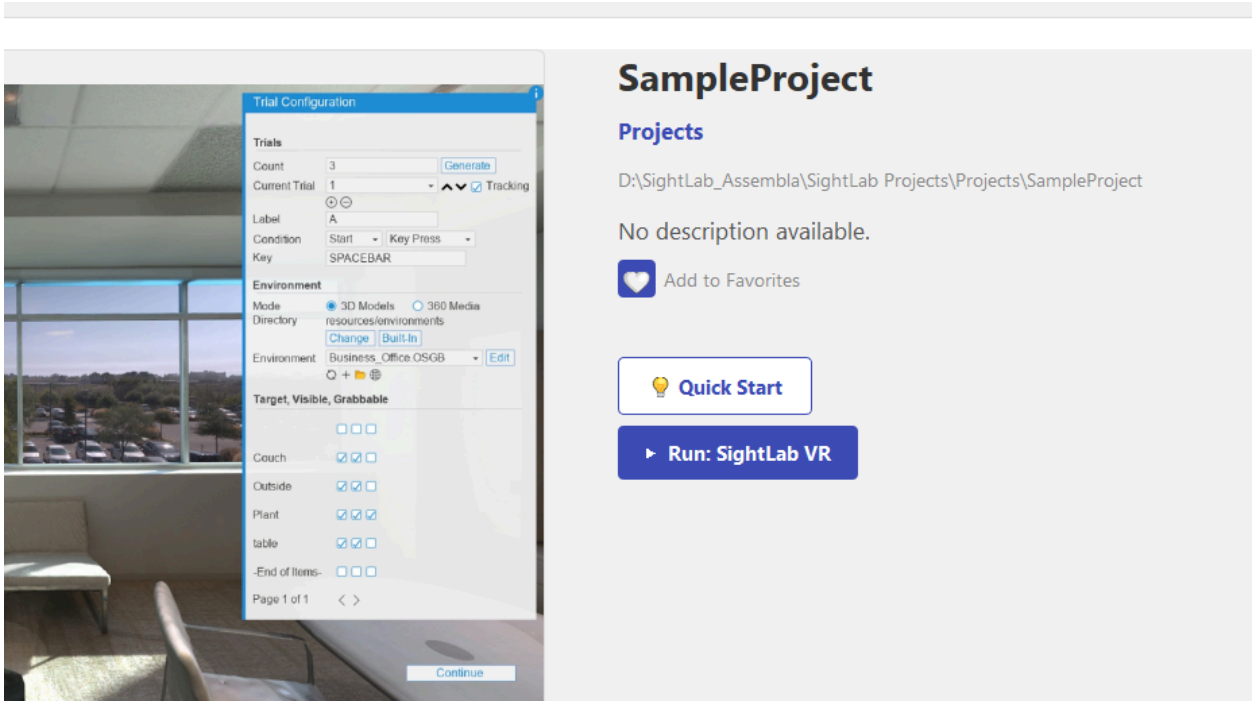


Using the GUI Editor

2.8.0 and higher

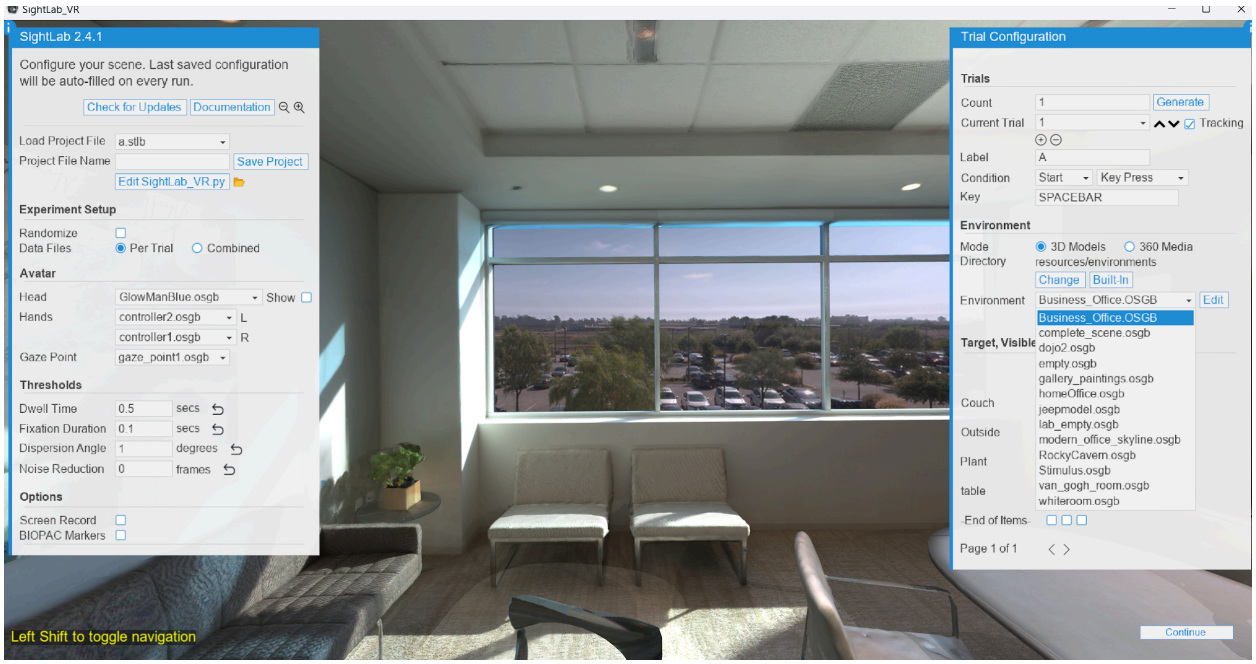
The editor launches automatically when you create a new project from the Dashboard. If you don't see the editor window, click **Edit and Run**.

1. **Open the SightLab VR Script**:
    - Click "Run SightLab VR (or the name of your script)" or double-click `SightLab_VR.py` in your project folder
    - This will launch the GUI editor.
2. **Note**: If other Python editors are installed on your system, ensure that the file opens in the Vizard Python environment. If the GUI doesn't load, right-click on the script and choose "Open With - Vizard 7" or "Vizard 8" (found at `C:\Program Files\WorldViz\Vizard\<versionNumber>\bin\winviz.exe`).



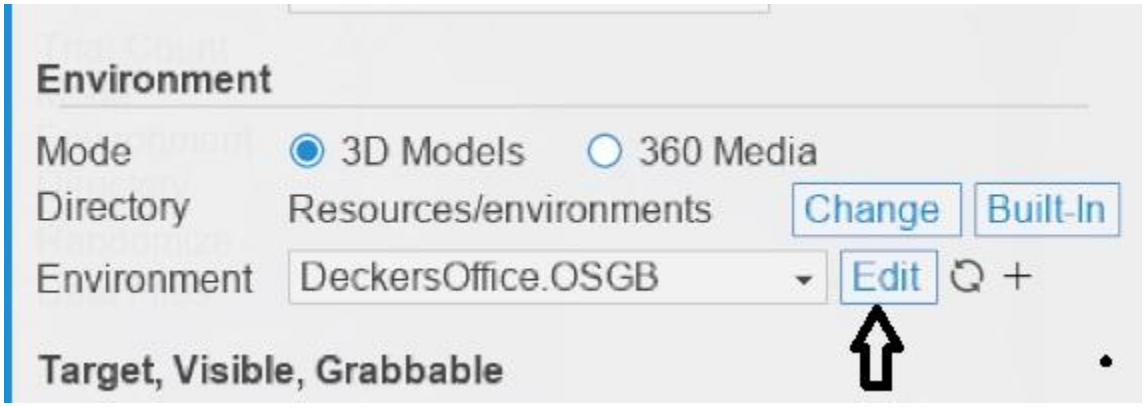
Choose Assets

Choose from the dropdown list (will show the resources already added) or drag and drop into the editor. Click **360 Media** if using 360 media. Press the **Left Shift** key to look around (WASD and XZ to move if in 3D model mode).



Open Scene Editor

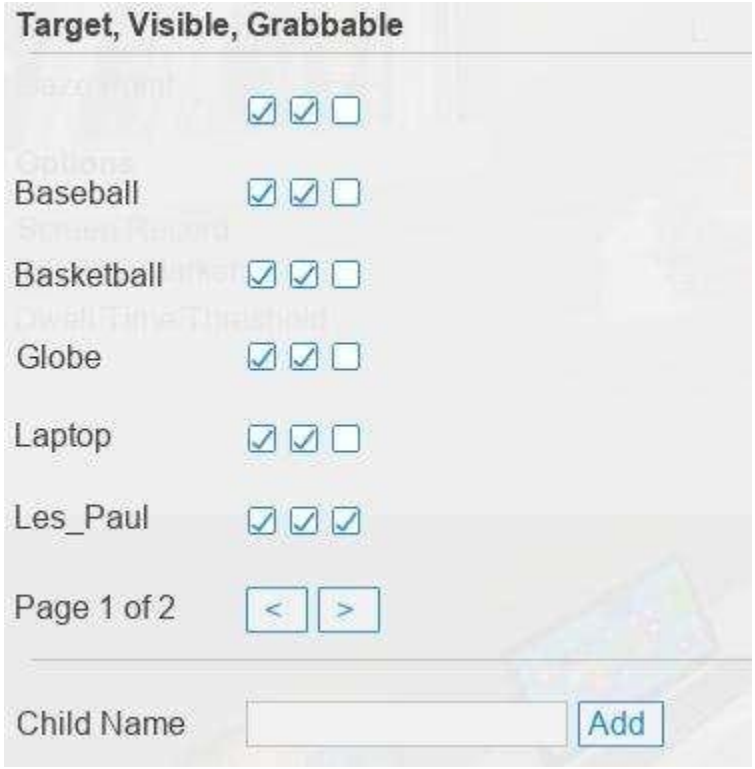
For 3D models, set up your scene, add ROIs and objects in the scene editor "Inspector" by clicking on the **Edit** button.



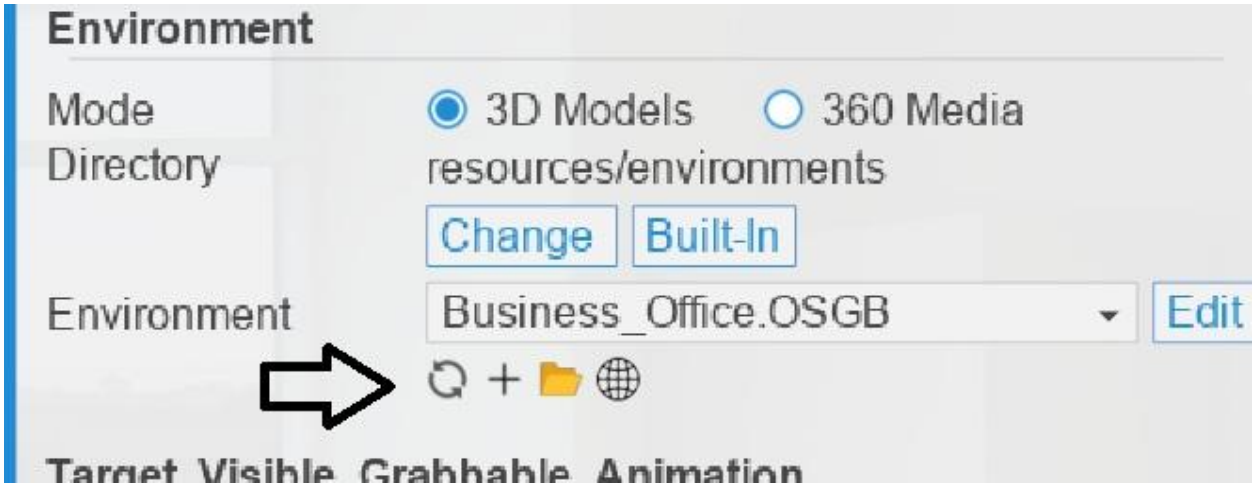
Note: You can also run the Inspector 3D model editor directly from the Inspector shortcut in the main SightLab projects folder, or from the "Tools" menu in the Vizard IDE.

Tag Objects

Objects can be tagged for extra data collection, visibility as well as interactions, such as grabbing.



For SightLab 2.8.4 or earlier, make sure to click the **Refresh** button if changes were made to a 3D model or you added a new one (as of SightLab 2.8.5 this happens automatically).

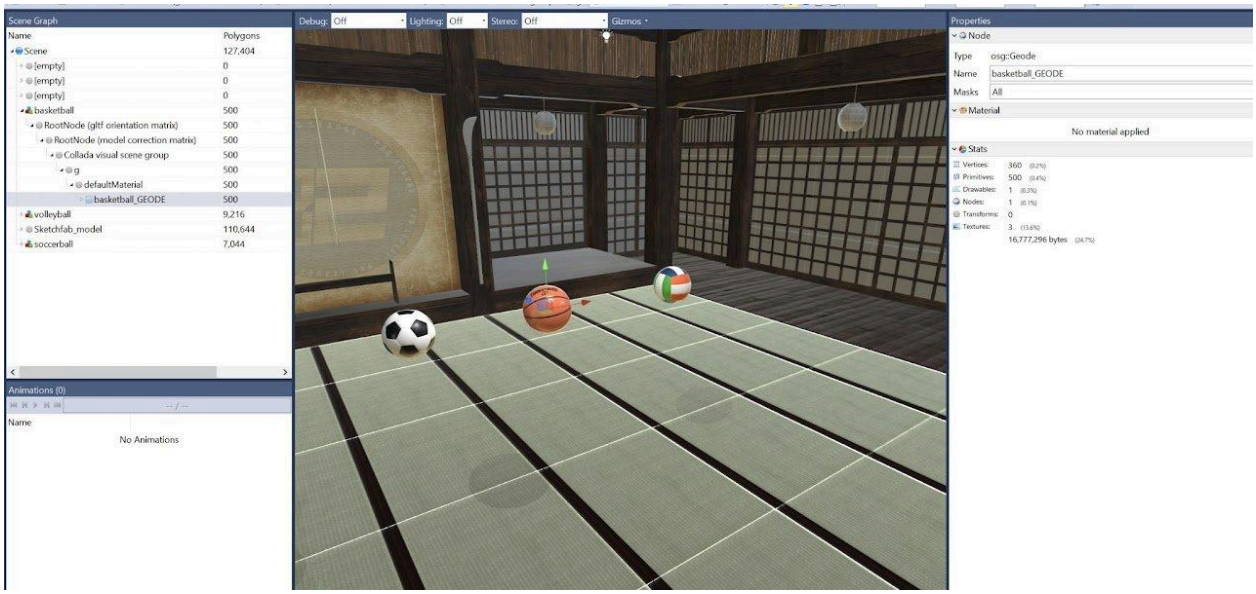


Editor Controls Overview

- **Left Shift**: Toggle scene lock/ROI selection mode (360 media).
- **. (Period)/F1**: Hide/show the menu.
- **Mouse**: Look around.
- **WASD/Arrow Keys**: Move (left/right/forward/backward).
- **Z/X**: Move down/up (or PageUp/PageDown).
- **Q/E**: Rotate left/right.
- **R**: Reset viewpoint.
- **/**: Take screenshot.
- **;**: Toggle mouse lock.
- **,**: Toggle scene display.
- **F2**: Toggle fullscreen.
- **F3**: Toggle rendering/wireframe modes.
- **F4**: Show frame rate/performance metrics.
- **Escape**: Exit.
- **Ctrl + F6**: Dock/undock with code.
- **Spacebar**: Toggle media playback (360 media).
- **1**: Select ROIs (360 media).
- **IJKL**: Move virtual gaze point (or use mouse).
- **Alt + I**: Float window and activate Vizard IDE interactive input.

Editing Models

1. **Open Models in Inspector**:
2. Click **Edit** in the Experiment Options editor to open a model in Inspector.
3. Use Inspector to add objects, tag ROIs, set starting points, adjust lighting, etc.
4. For more on Inspector see this page
5. **Add New Models**:
6. Click **+** to load new models into your project.



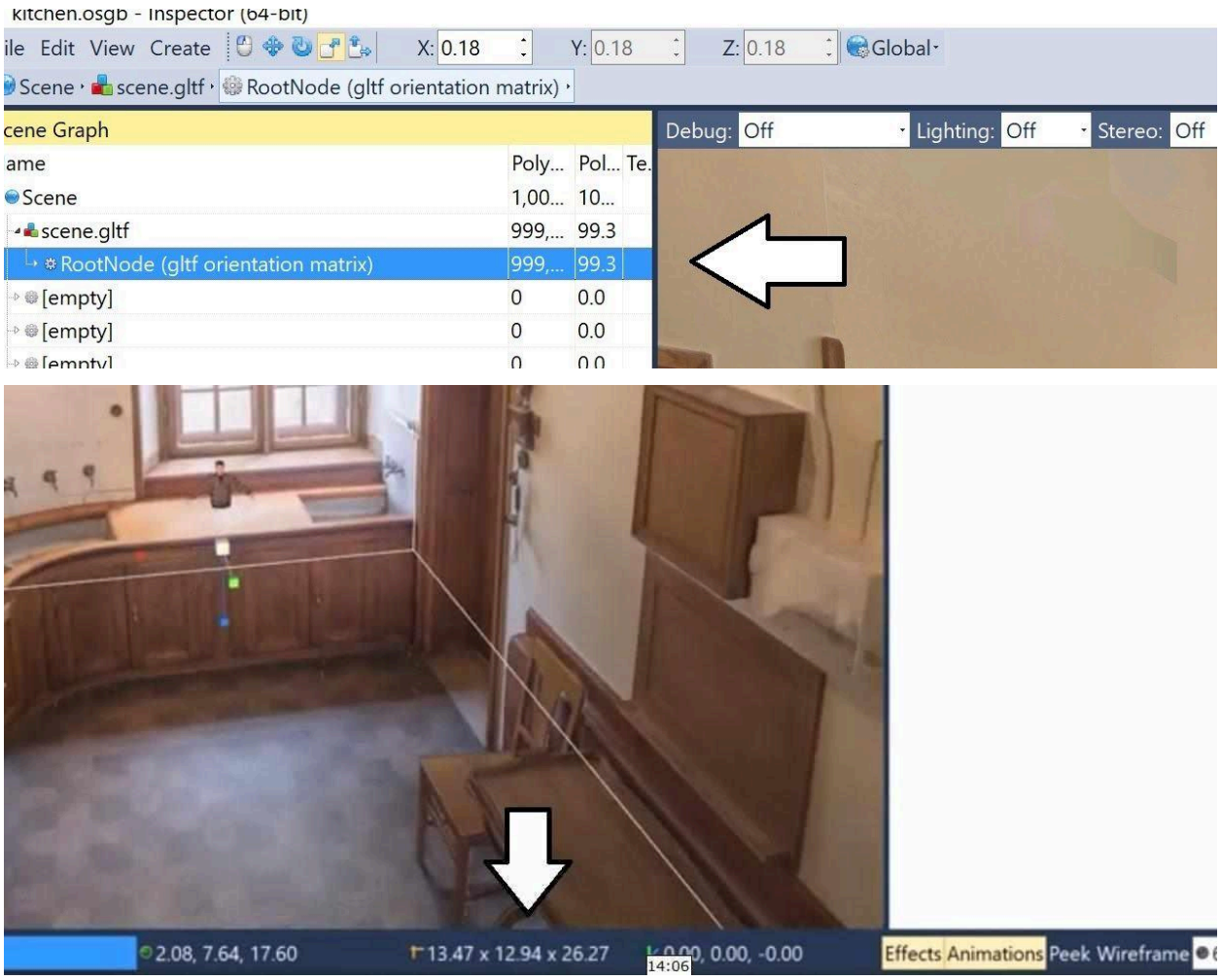
Inspector Controls

- **Left Mouse Drag**: Orbit view.
- **Shift + Left Click**: Move view to clicked surface.
- **Right Mouse Drag**: Pan.
- **Scroll Wheel**: Zoom.
- **Z**: Zoom to selected node.

For more on Inspector, see Vizard Documentation.

Environment Size Check

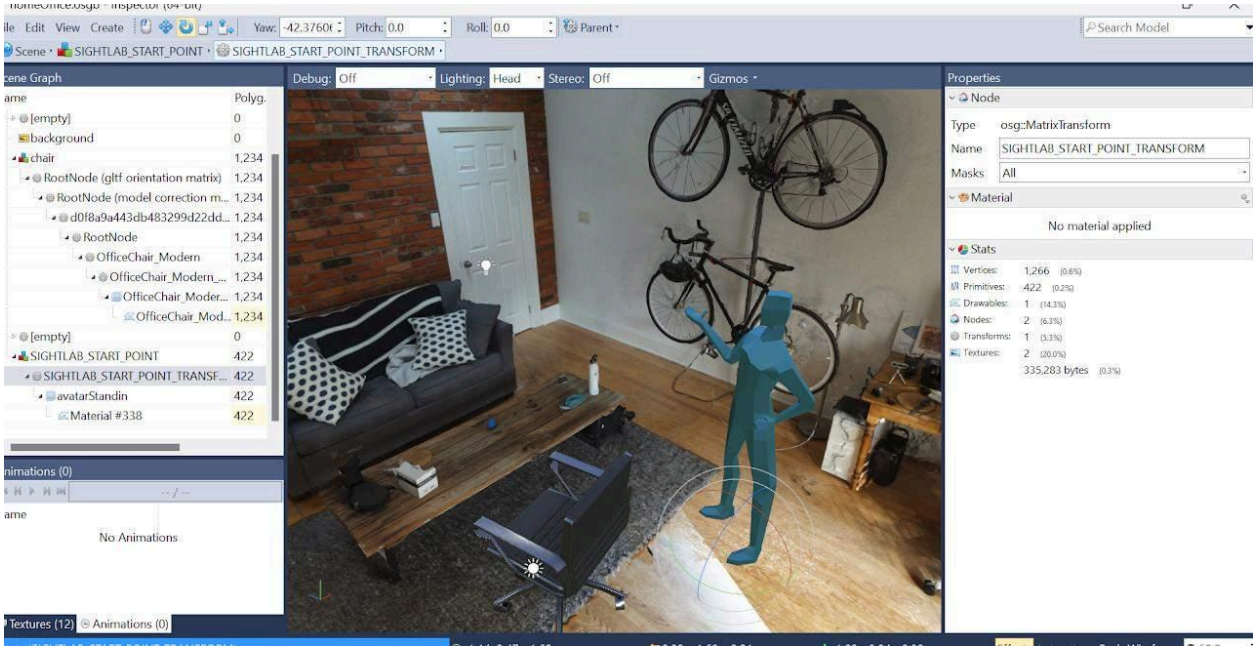
1. Click the root node in the scene graph (top left).
2. View the size in meters (bottom right).



Setting the Starting Point

- **Add the SIGHTLAB_STARTING_POINT**:
- Use `File > Add` to include the starting point.
- Locate it in `BlankProject\Resources\scene_objects` or `C:\Program Files\WorldViz\Sightlab2\resources\sightlab_resources\objects`.

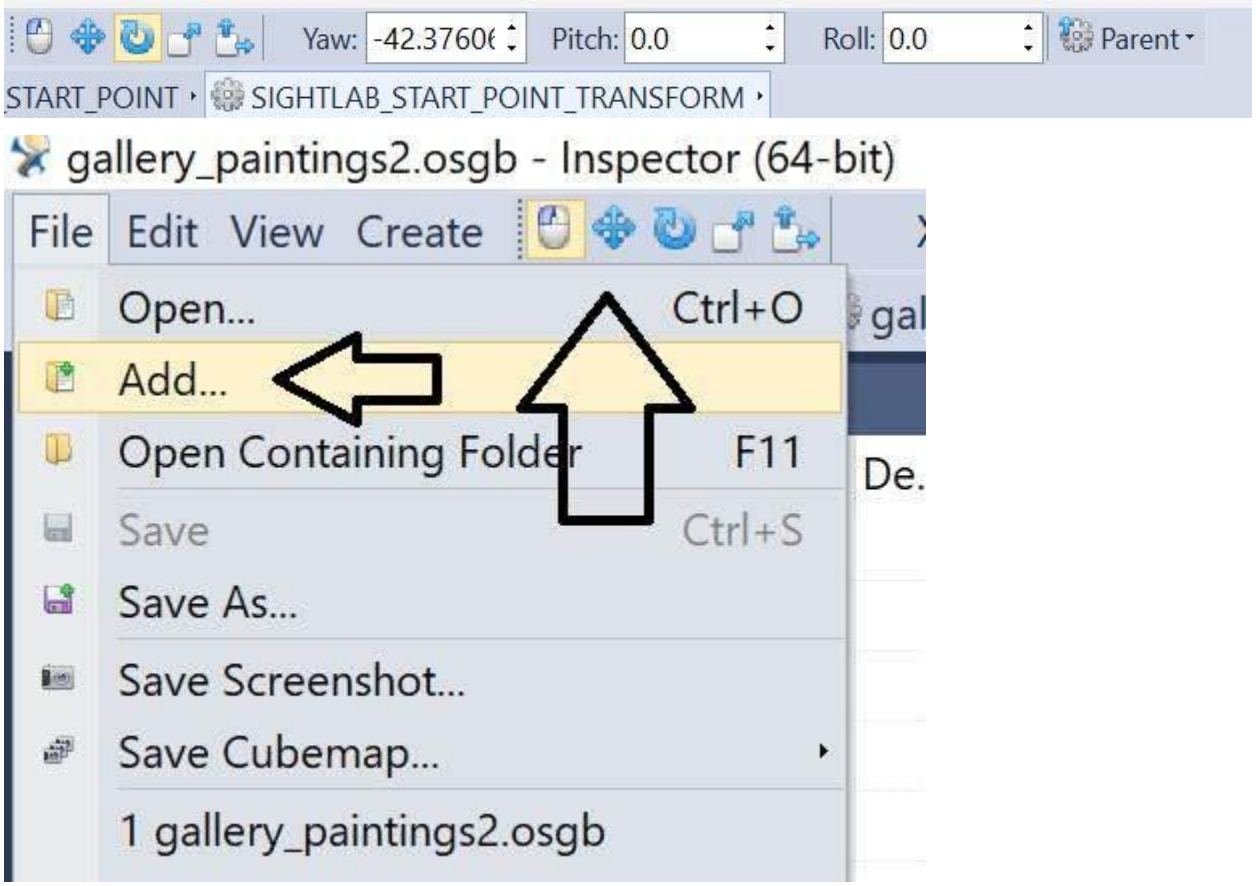
Or find shortcut in: `Documents\SightLab2\Util_Files\SightLab_Resources`.



Transforming Objects

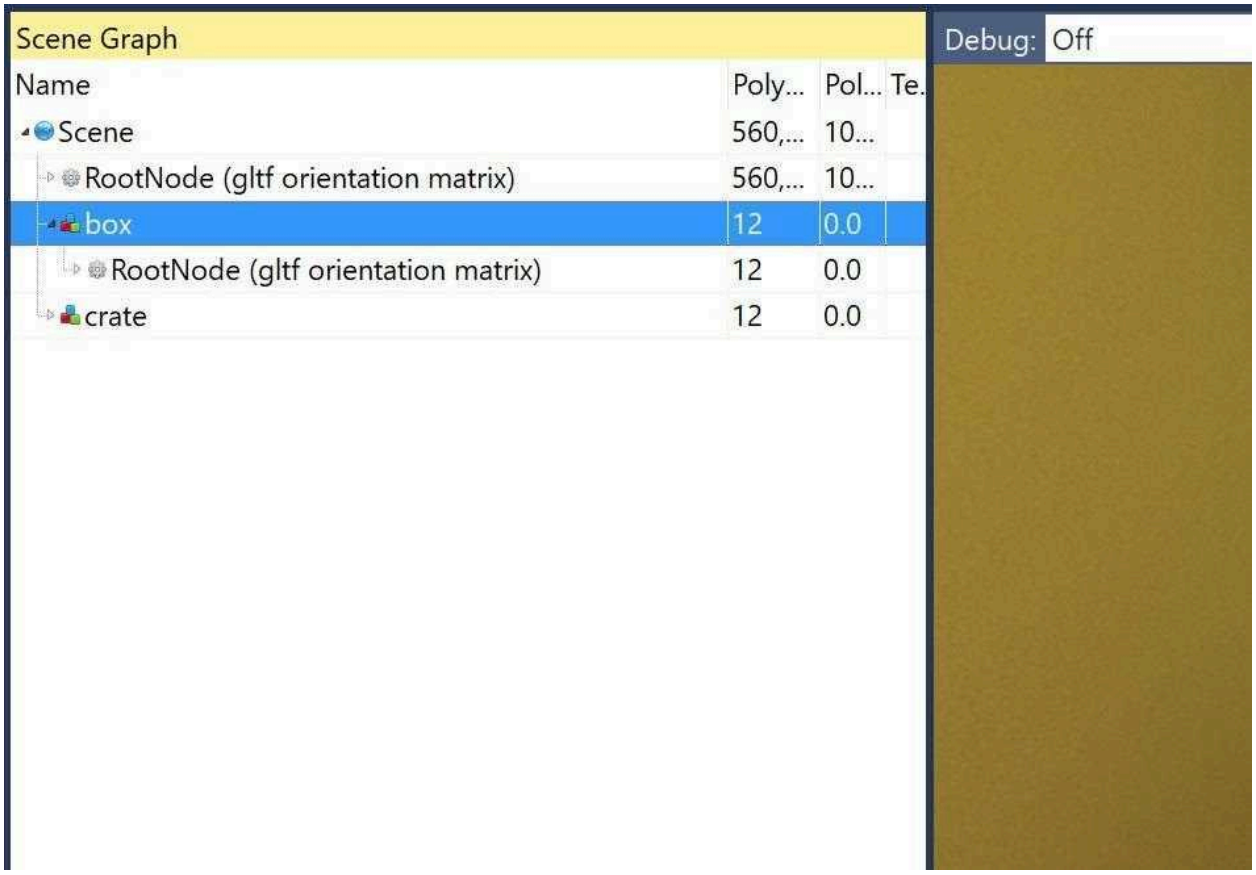
- **Move**: Reposition objects.
- **Scale**: Resize objects.
- **Rotate**: Change orientation.

Adjust the participant's starting position by moving/rotating the `SIGHTLAB_START_POINT`.



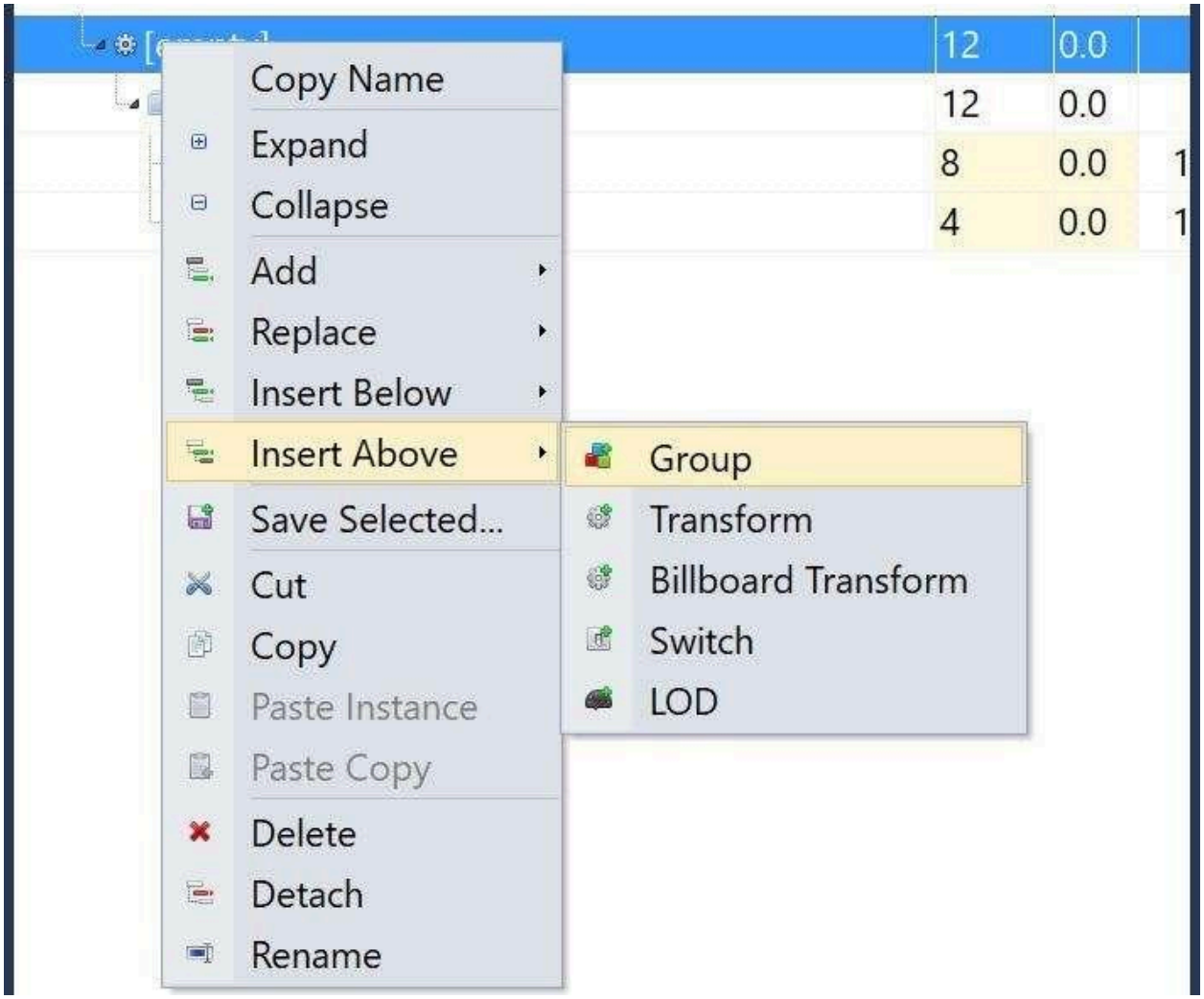
Adding Objects of Interest

1. **Add Objects**:
2. Use `File > Add` to include objects.
3. Position and scale objects with transform tools.



Understanding Nodes

- View and manage nodes in the scene graph (left panel).
- **Group Nodes** (red, blue, green) are essential for data collection.



Creating Group Nodes

- Right-click on a node > **Insert Above - Group** for data collection.
- Add transform nodes for positioning objects (right-click > **Insert Above - Transform**).
- Note: Make sure to not have any other nodes in the scene with that same name, or they may not show up for tagging.

Renaming Objects

1. Right-click on the group node > **Rename**.
2. Enter a unique name. Check existing names using **Search**.

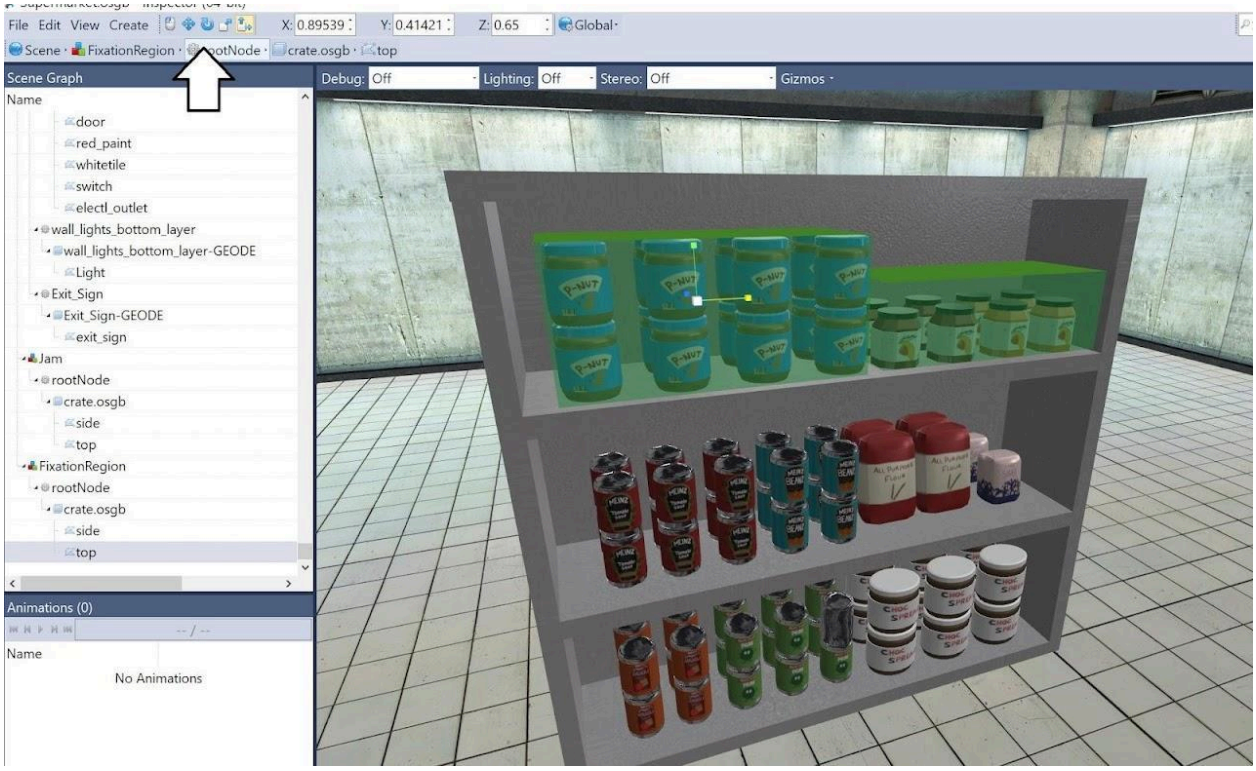
Tip: Use "_env" in the name to automatically exclude an object from data collection.

Adding Regions of Interest (ROIs) to 3D Scenes



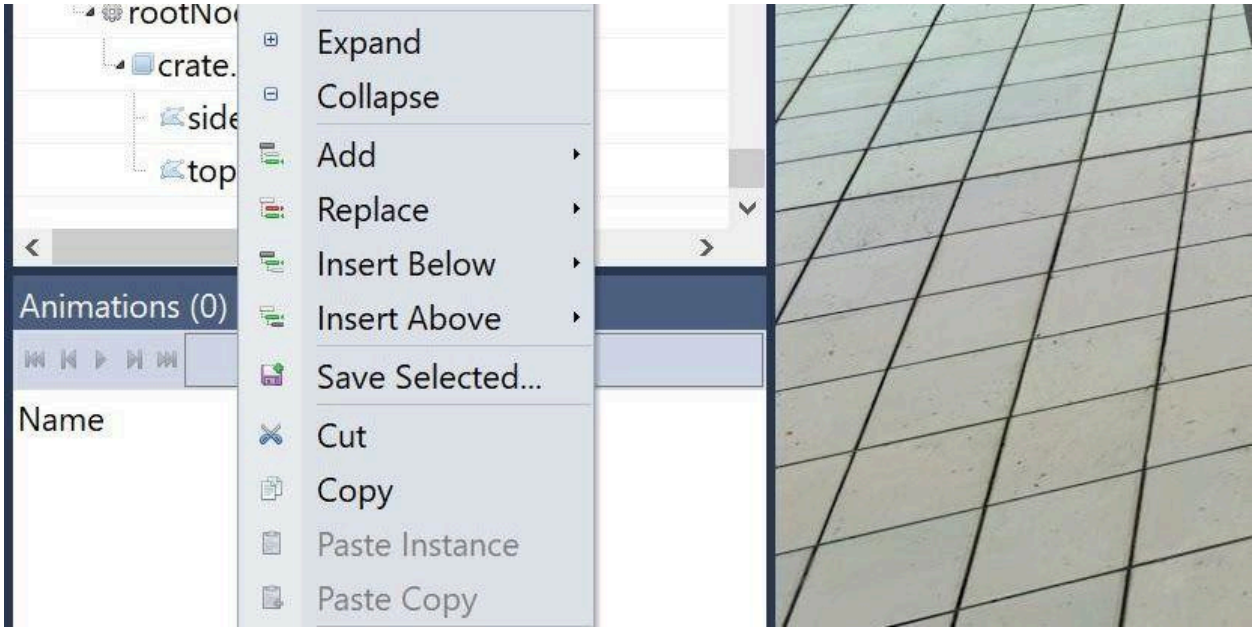
Adding ROI Objects

1. **Add ROIs**:
2. Use `File > Add` and select `RegionOfInterest.osgb` from `scene_objects` or the resources folder.



Positioning ROIs

1. Select **rootNode** under **FixationRegion**.
2. Use transform tools to adjust position, size, and orientation.

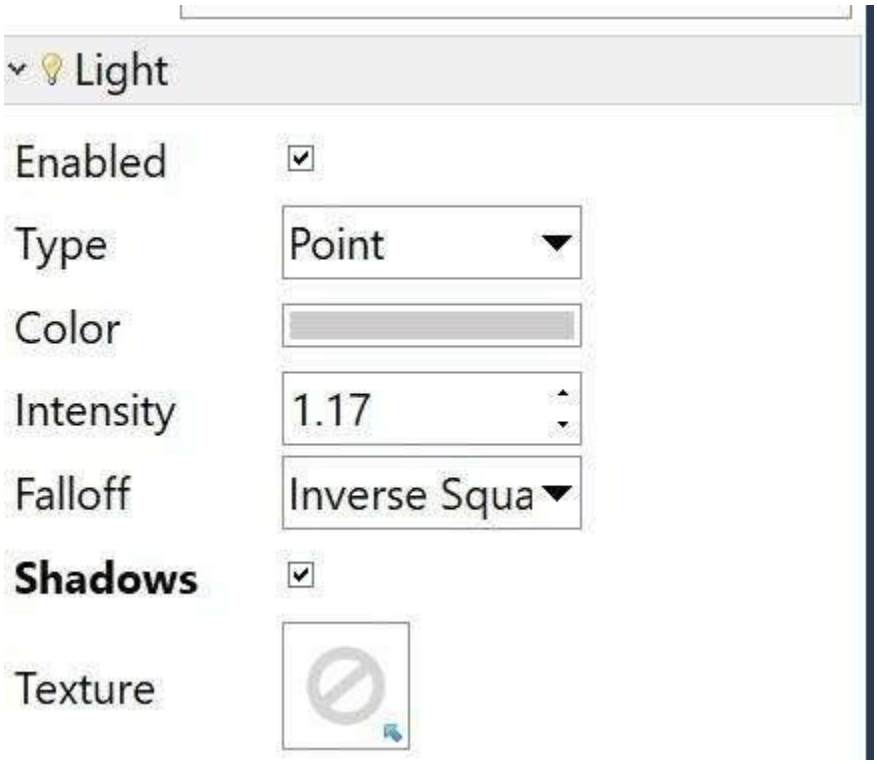


Naming ROIs

1. Right-click the region in the scene graph > **Rename**.
2. Name the region (e.g., "PeanutButter").

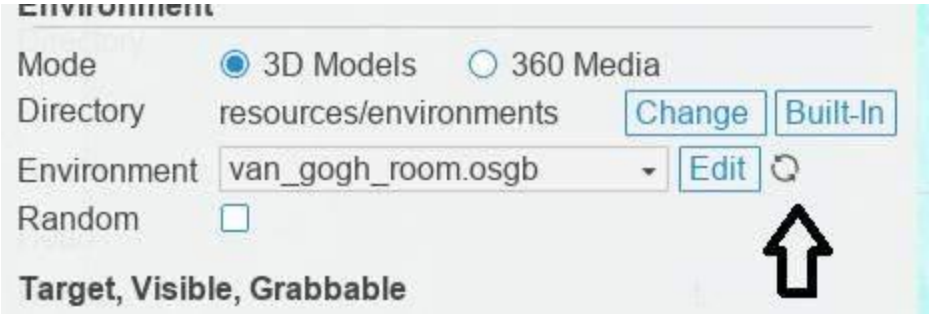
Creating Multiple ROIs

- Hold **Shift** and move an ROI to duplicate.
- Add lights, backgrounds, etc., via `Create > Light`.

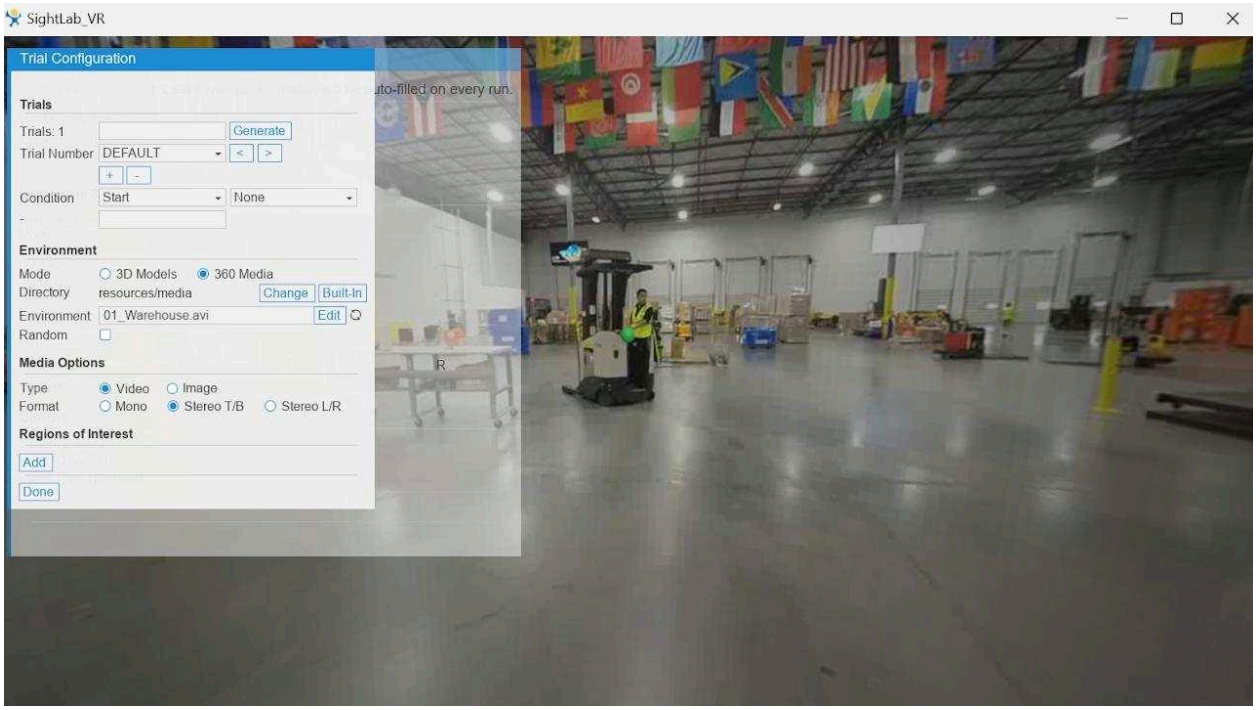


Saving Changes

- **File > Save** your work in Inspector.
- Refresh in SightLab to apply changes.



Working with 360 Media



Switching to 360 Media Mode

- Select **360 Media** in the Experiment Options editor.

Selecting Media

- View media in the `resources/media` folder.
- Use **Change** to switch directories.
- Use **Built-In** for default 360 media.

Media Options

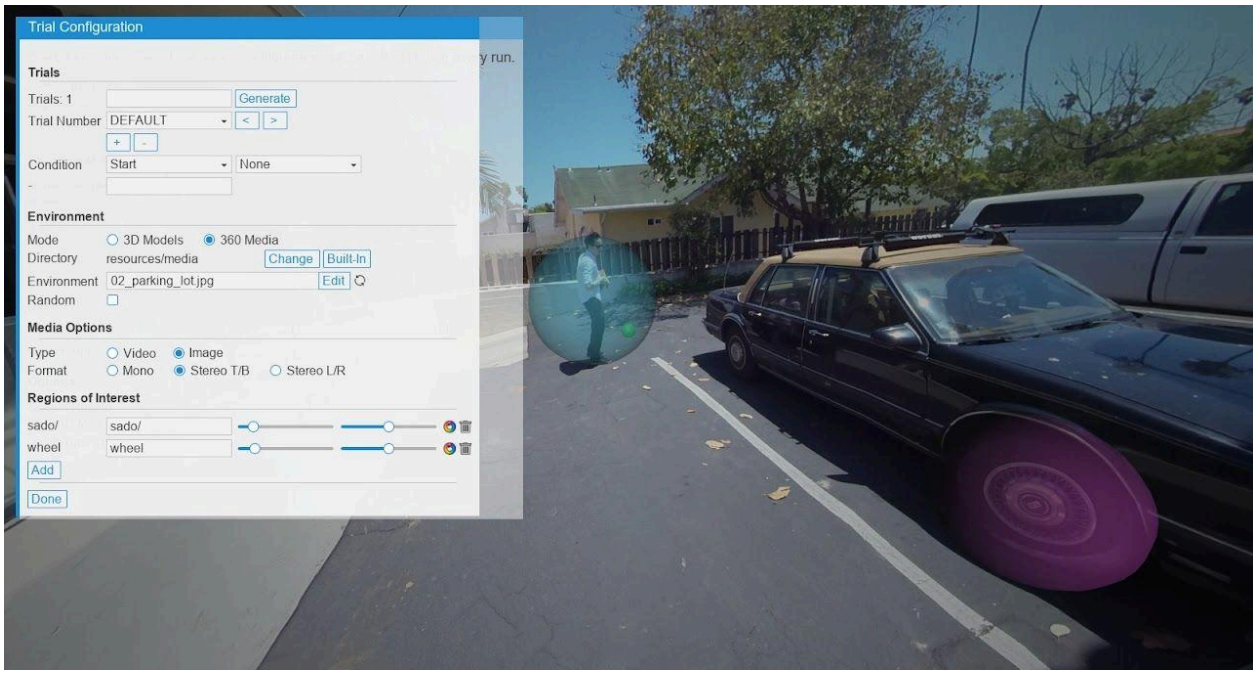
- Choose media type (video/image).
- Select stereo or mono format.



Adding ROIs to 360 Media

- Press **Add** or **Left Shift** to enter ROI mode.

Tip: Press `;` to lock the mouse cursor.

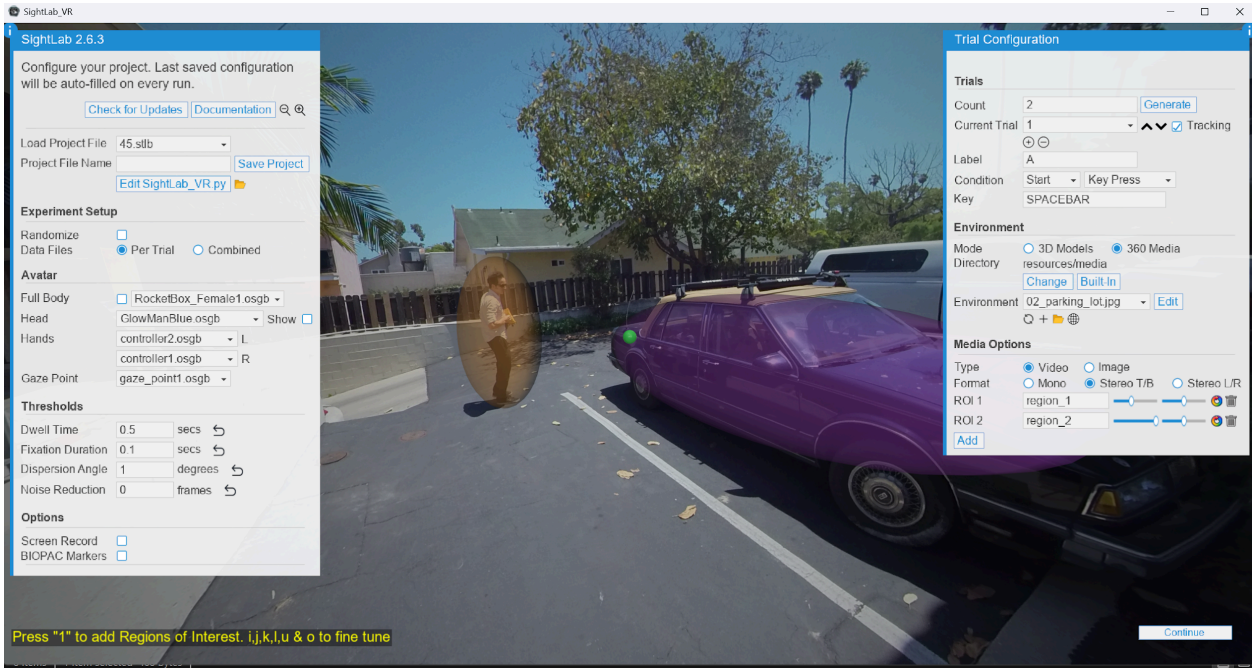


Placing and Customizing ROIs

- Move the virtual gaze point and press **1** to set ROIs.
- Customize region name, scale, opacity, and color.
- Use the i,j,k,l,u & o keys to move the region or fgh and Shift FGH to scale in x,y or z (use the slider to scale in)

Tip: Lower opacity to hide ROIs during the experiment.

Refer to this YouTube Tutorial for more information.

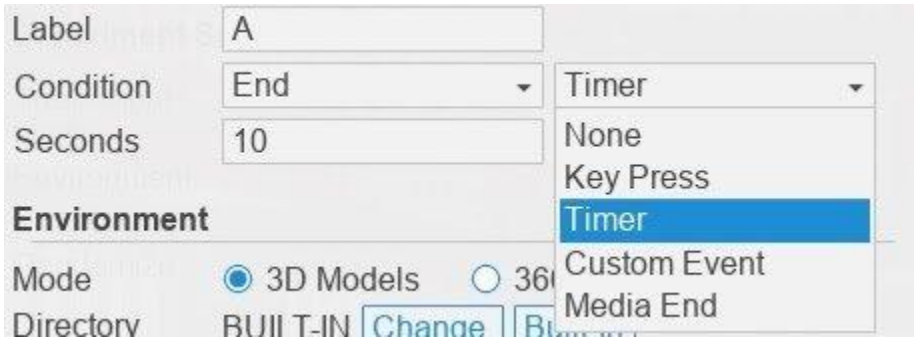


Configuring Trials

1. **Generate Trials**: Enter a count and click **Generate**.
2. **Current Trial**: Use the dropdown to edit individual trials.

Trial Parameters

- **Label**: Enter trial-specific labels.
- **Start/End Conditions**:
    - Key/button press
    - Timer
    - Custom Event
    - Media end
    - Gaze Event (specify object name)
    - None (specified in code)



Finalizing Your Project

1. Name your project.
2. Click **Save Config**.
3. Use **Randomize** to randomize the trial order.
4. Choose combined or per-trial data file saving.

Note: For advanced randomization, use the code.

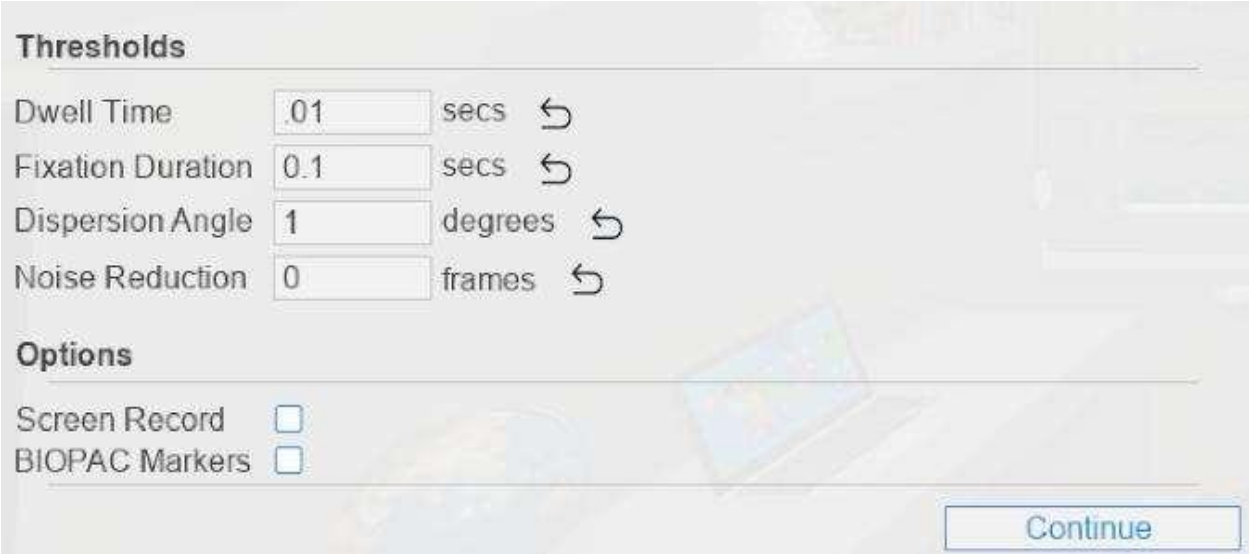


Thresholds and Options

- **Dwell Time Threshold**: Default 500ms (modifiable).
- **Fixation Duration**: Default 100ms.
- **Dispersion Angle**: Default 1 degree.
- **Noise Reduction**: Adjust frame averaging.

Options

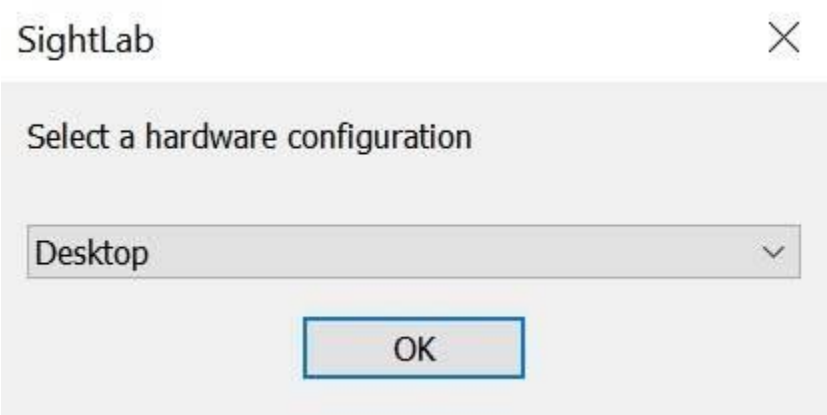
- **Screen Record**: Records session videos.
- **BIOPAC Markers**: Synchronize with Biopac's AcqKnowledge.



Running the Project

Click **Continue** to test your project. See "Running a Session Single User" or "Running a Session Multi-User"

Choose Your Hardware Mode:

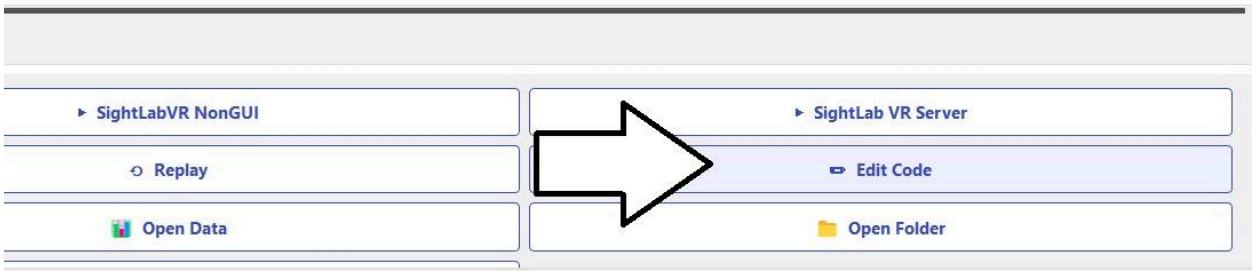


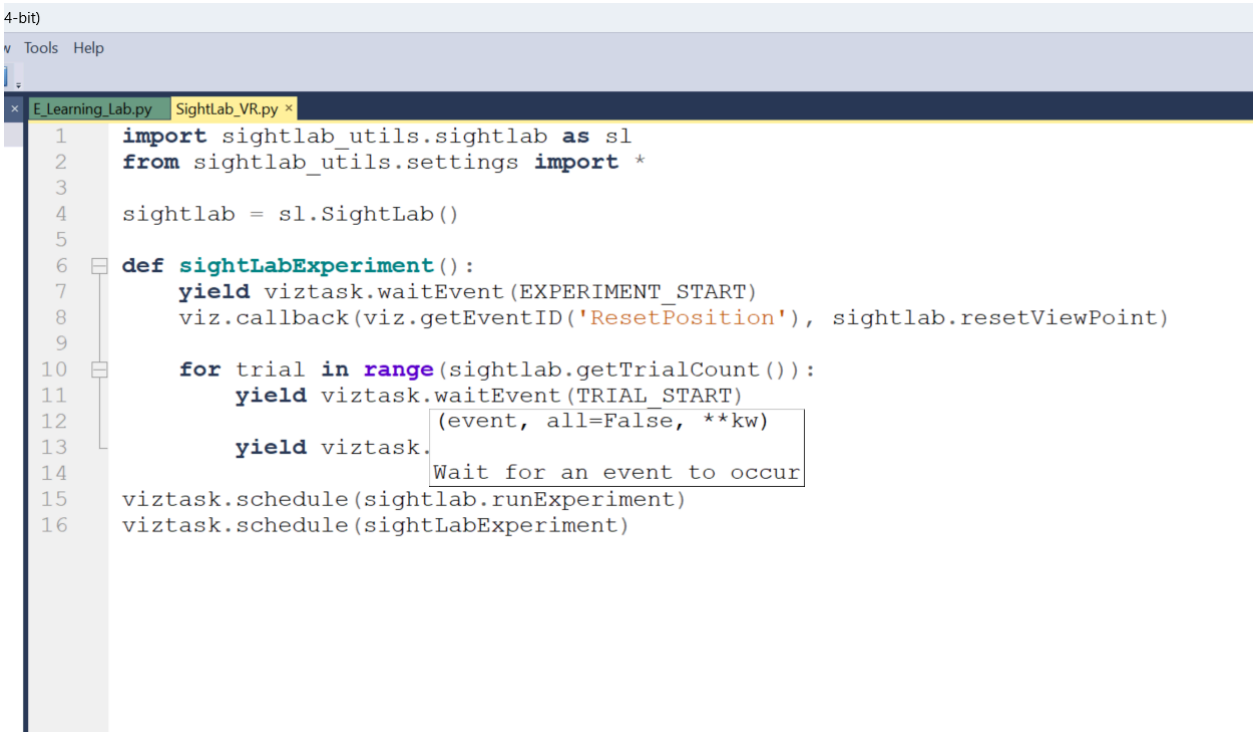
Editing with Code

Any script can also be modified with code. See this page for more information. Additionally, for help with coding see the Custom trained SightLab GPT Assistant.

- Edit your Python script by clicking **Edit [filename]**. Or "Edit Script on the Actions button" This will open the script in the Vizard python editor.


D:\SightLab_Assembla\SightLab Projects\Projects\SampleProject
Locate Folder
No description available.
Add to Favorites
Quick Start
Run: SightLab VR


SightLabVR NonGUI
SightLab VR Server
Replay
Edit Code
Open Data
Open Folder


4-bit)
Tools
Help
E_Learning_Lab.py
SightLab_VR.py
import sightlab_utils.sightlab as sl
from sightlab_utils.settings import *
sightlab = sl.SightLab()
def sightLabExperiment():
yield viztask.waitEvent(EXPERIMENT_START)
viz.callback(viz.getEventID('ResetPosition'), sightlab.resetViewPoint)
for trial in range(sightlab.getTrialCount()):
yield viztask.waitEvent(TRIAL_START)
(event, all=False, **kw)
yield viztask.
Wait for an event to occur
viztask.schedule(sightlab.runExperiment)
viztask.schedule(sightLabExperiment)

Running a Session

Single User

For running with multiple users see "Running a Session with Multi User"

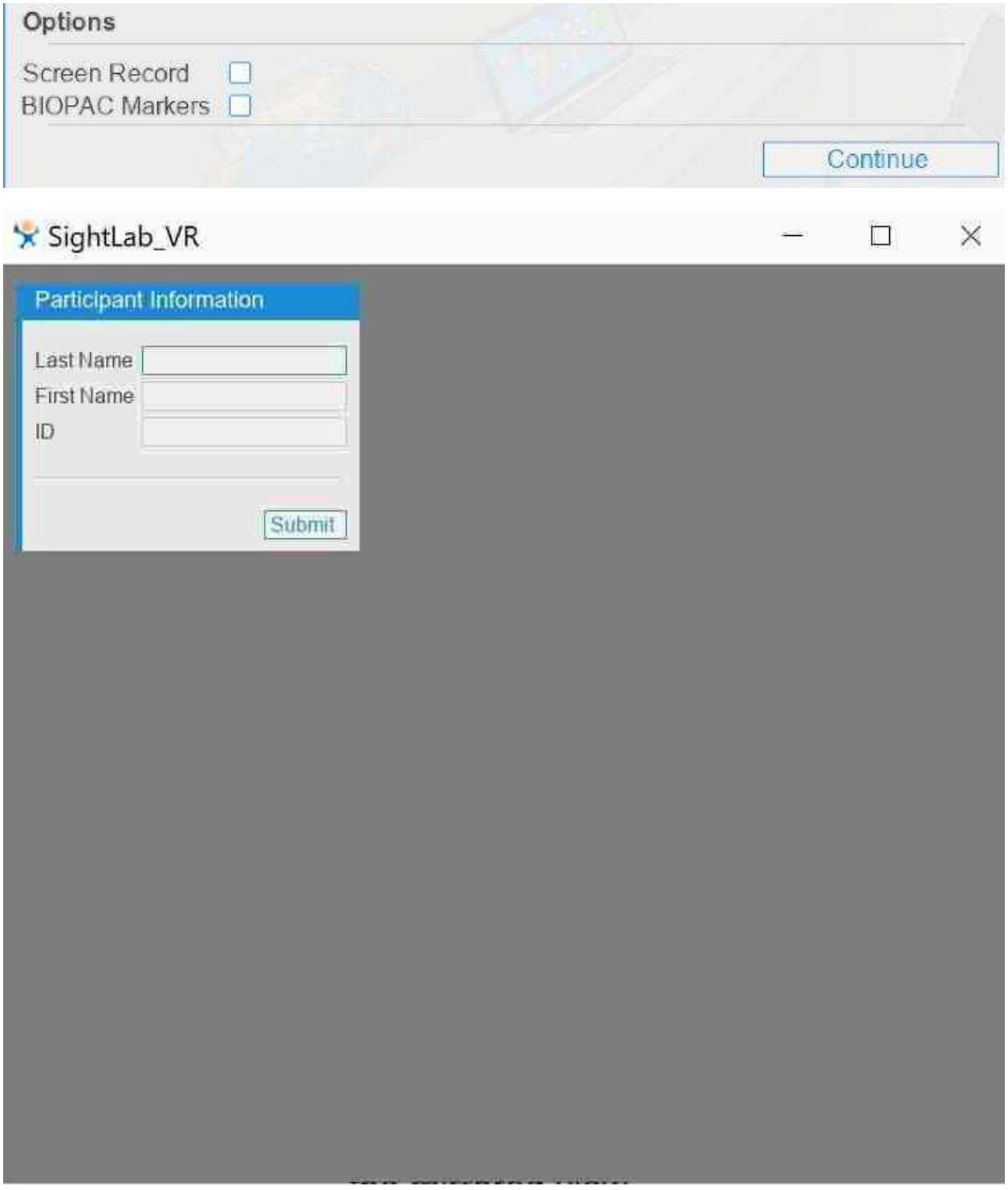
The default is running a session with the GUI, if you do not want to use the GUI and want to use code set `gui = False` in the code. You can also use `sightlab = sl.SightLab(configpath = 'sightlab\_configs/YourConfigFile.stlb')` to run a session in "participant mode", where there are no options to modify the experiment. For running blocks of trials see this page.

Before running a session you may want to calibrate if using an eye tracked headset. This varies depending on the hardware being used. See the Supported Hardware page for more information.



- Choose hardware from various eye tracked headsets, desktop mode or non-eye tracked headsets (head position will be used for analytics of non-eyetracked headsets)

If running with the GUI you can edit options if necessary, or if running as an executable or as a participant you will just choose your hardware and click "Continue"



Running the Session

- Enter name and subject ID. The subject ID is used for naming the data files (do not use an underscore in the ID, as this will come up with an error in the replay mode, or you will not see the file to select in the Session Replay)
- Note that if you do not enter a participant ID date and time will be used
- Press spacebar to start recording eye tracking data and view real time fixations (unless this is changed to another key or event)
- Use the 'P' key to toggle the gazepoint on and off for the participant. It is always on for the mirrored view.
- Navigation: see controls page
- Press spacebar to end or advance to next trial, unless using a timer or another event
- Once "Experiment Complete" text appears Sightlab has reached the end of the last trial
- Click x or hit escape to exit

After you quit, you'll see data files will be saved in the "data" folder

Note that for the Demo version there is a 5 minute time limit on execution. The full version allows as many data files as you want and no time limit.

Trial_data shows a timestamp along with the x,y,z coordinates of the gaze intersect (combined and individual eye), eye euler, head position (6DOF), Fixation/Saccade status, saccade amplitude, velocity, average amplitude, peak velocity, pupil diameter, eye openness (if you are using a headset that tracks those), view status and custom flags. See documentation on how you can add more items to this file

Experiment Summary - Shows a summary of the Dwell view count, fixation count, dwell time, average view time, per trial saccade calculations, time to first fixation, trial length, as well as any additional data that you want to summarize per trial. See documentation on how to add more data.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Participar	Experiment	Date/Time	Last	First Name	Trial Nu	Trial Length	Label	ROI/Object	Dwell Visits	Fixation Count	Total Dwell	Avg Time (secs)	Avg Saccadic	Avg Saccadic	Saccadic Velocity	Time to First Fixation (secs)	
		07-19-2025-08-51-29			1	29.947	A	heart_tag	1	0	1.601	1.601				7.265	
		07-19-2025-08-51-29			1	29.947	A	lcd__tv.glb	2	3	2.881	1.44				1.053	
		07-19-2025-08-51-29			1	29.947	A	Heart_tag	5	4	8.21	1.642				12.199	
		07-19-2025-08-51-29			1	29.947	A	monitor_st	0	0	0	0					
		07-19-2025-08-51-29			1	29.947	A	school_des	0	0	0	0				27.724	
		07-19-2025-08-51-29			1	29.947	A	Heart2_tag	0	0	0	0					
		07-19-2025-08-51-29			1	29.947	A	ENTIRE_SCE	8	21	12.691	1.586	0.532	100.756	778.316	lcd__tv.glb: 1.053	

Trial Timeline Dwell- Shows a timeline of when objects were viewed, for how long, and how many fixations there were per object

A	B	C	D	E	F	G	H	I
Participant ID	Trial Date/Time	Last Name	First Name	Time Stamp	Object	Dwell Time	Fixation Count	
	04-28-2024-21-35-42			2.82	Soccerball	1.151	1	
	04-28-2024-21-35-42			4.604	Soccerball	0.684	1	

Trial Timeline Fixation Saccade - (2.5 or higher) shows a timeline of fixations and saccades, fixation/saccade length, average fixation dispersion angle and average saccade velocity as well as delta angle, velocity and amplitude values.

A	B	C	D	E	F	G	H	I	J	K
Participant	Trial Date/T	Last Name	First Name	Trial Numb	Time Stamp	Type	ROI/Object	Duration (s	Average Dispersion (deg)	Average Velocity (deg/sec)
	07-19-2025-08-52-36			1	0.001	FIXATION	None	0.285	0.017	None
	07-19-2025-08-52-36			1	0.298	FIXATION	None	0.101	0.017	None
	07-19-2025-08-52-36			1	0.411	SACCADE	None	0.099	0.032	40.484
	07-19-2025-08-52-36			1	0.522	FIXATION	None	0.055	0.016	None
	07-19-2025-08-52-36			1	0.589	FIXATION	None	0.067	0.014	None
	07-19-2025-08-52-36			1	0.667	FIXATION	None	0.056	0.015	None
	07-19-2025-08-52-36			1	0.734	FIXATION	None	0.087	0.017	None
	07-19-2025-08-52-36			1	0.832	FIXATION	None	0.077	0.017	None
	07-19-2025-08-52-36			1	0.92	FIXATION	None	0.057	0.016	None
	07-19-2025-08-52-36			1	0.988	SACCADE	None	0.111	0.034	36.768
	07-19-2025-08-52-36			1	1.11	FIXATION	lcd__tv.glb	0.241	0.015	None
	07-19-2025-08-52-36			1	1.365	FIXATION	lcd__tv.glb	0.204	0.017	None
	07-19-2025-08-52-36			1	1.58	FIXATION	None	0.276	0.017	None
	07-19-2025-08-52-36			1	1.866	FIXATION	None	0.3	0.017	None
	07-19-2025-08-52-36			1	2.177	FIXATION	None	0.233	0.017	None
	07-19-2025-08-52-36			1	2.42	FIXATION	None	0.233	0.013	None
	07-19-2025-08-52-36			1	2.665	SACCADE	None	0.034	0.017	97.169
	07-19-2025-08-52-36			1	2.711	FIXATION	None	0.055	0.014	None
	07-19-2025-08-52-36			1	2.778	SACCADE	None	0.468	0.459	116.36
	07-19-2025-08-52-36			1	3.258	FIXATION	None	0.088	0.017	None

Session Replay/ SightLabVR Replay - Run the Session Replay to see visualizations such as heatmaps, scan paths, dwell time, user interactions and more. Use spacebar to start and stop replay. Can be viewed either on the Desktop or in a headset. See the Session Replay page in the documentation for more information.



Screen Recordings - If "Screen Record" is checked, screen recordings will be saved to a new folder "recordings". It is suggested to install the moviepy python library via the Package Manager to compress the video recordings, as these come in uncompressed by default. The video recordings can also be brought into Biopac Acqknowledge synchronized with the physiological recording if using Biopac. See the Biopac page for more information.

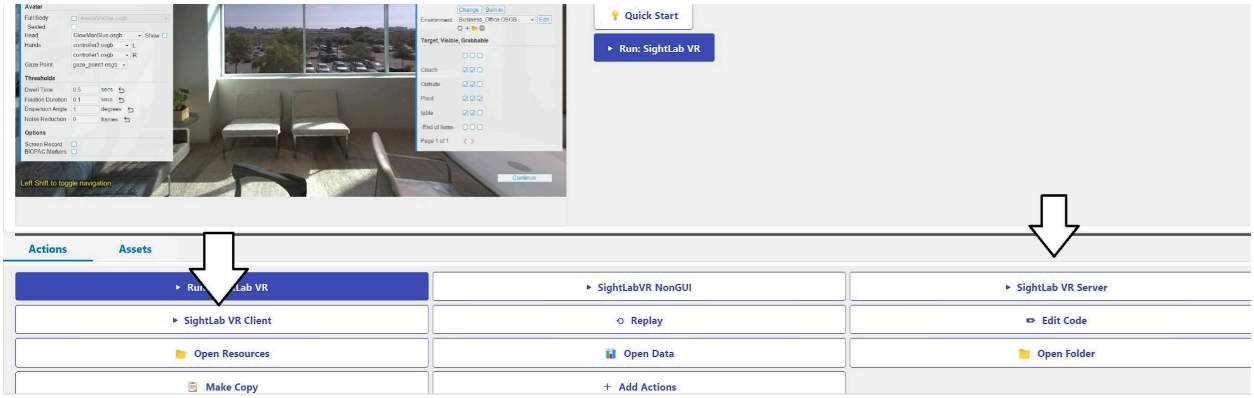
There is also a config.json file that saves your experiment settings, as well as .rply files in the replay_data folder, that is used for the session replay.

Running a Session with Multi User

See also Multi User Custom Experiments for multi user code examples

Additionally, see the example scripts for more multi user functionality, such as running a presenter, adding instructions, and more. Located in the projects folder.

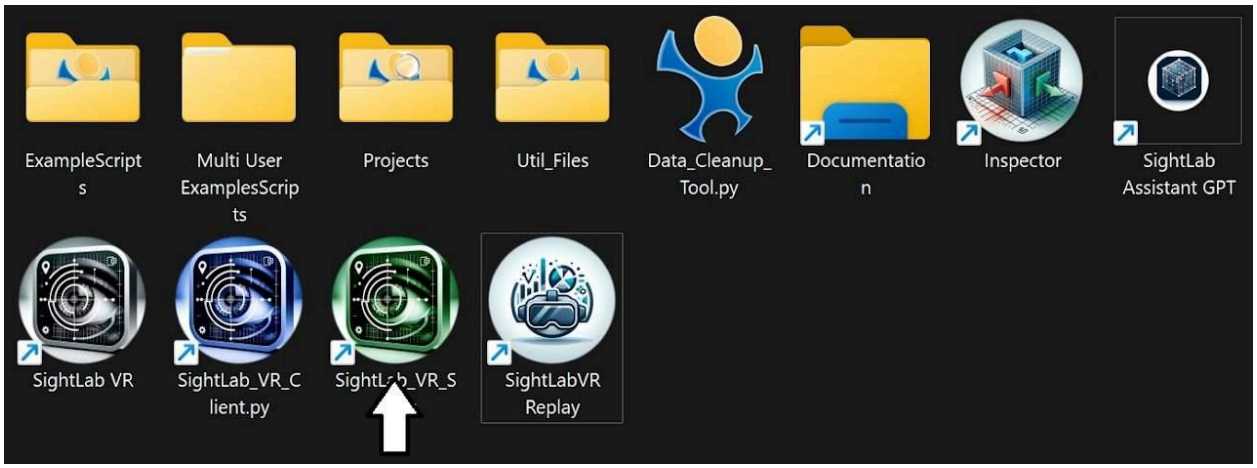
Note: If using the new SightLab Dashboard, each script will have its own server and client scripts you can launch from the "Actions" menu.



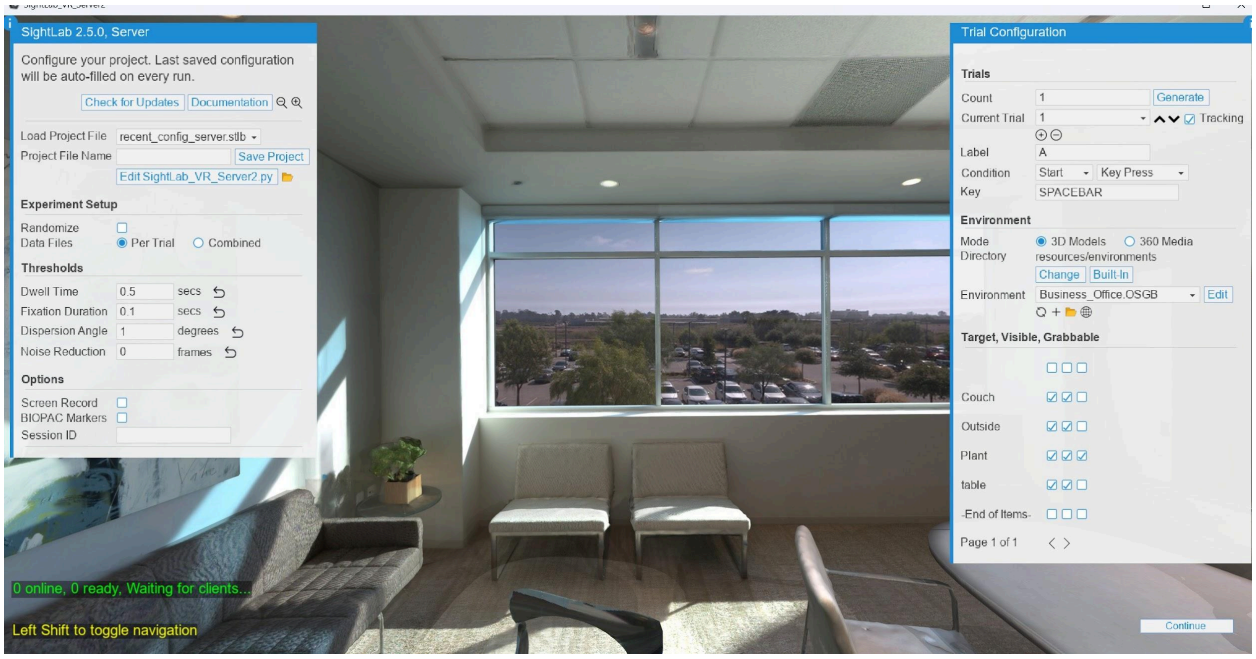
`SightLab_VR_Server.py` is for running a session as the server using the GUI interface.

`SightLab_VR_Client.py` is for running each client that will connect to the server.

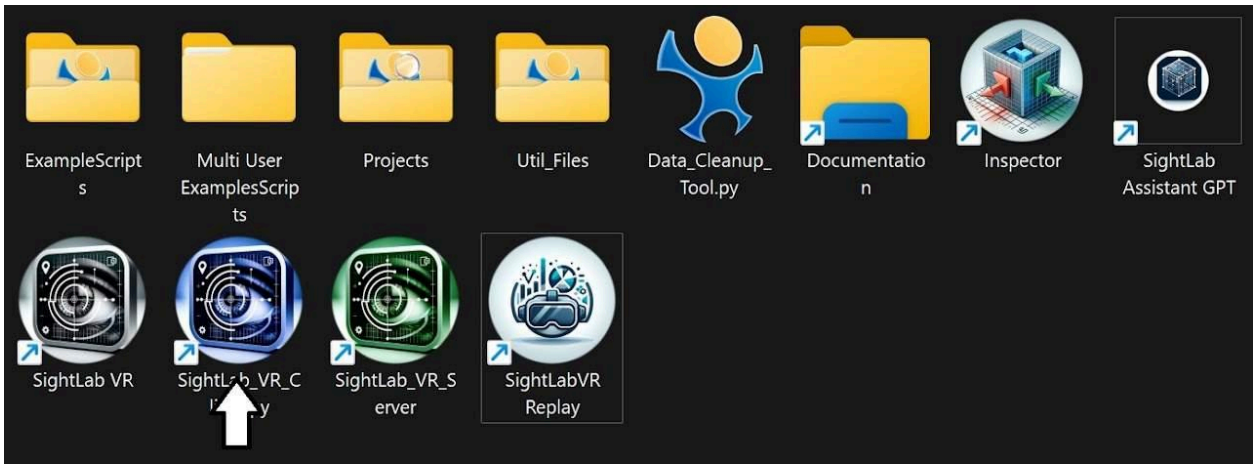
For synchronizing assets across multiple computers see this page.



Run SightLab_VR_Server to start the main server. All clients will connect to the main server.

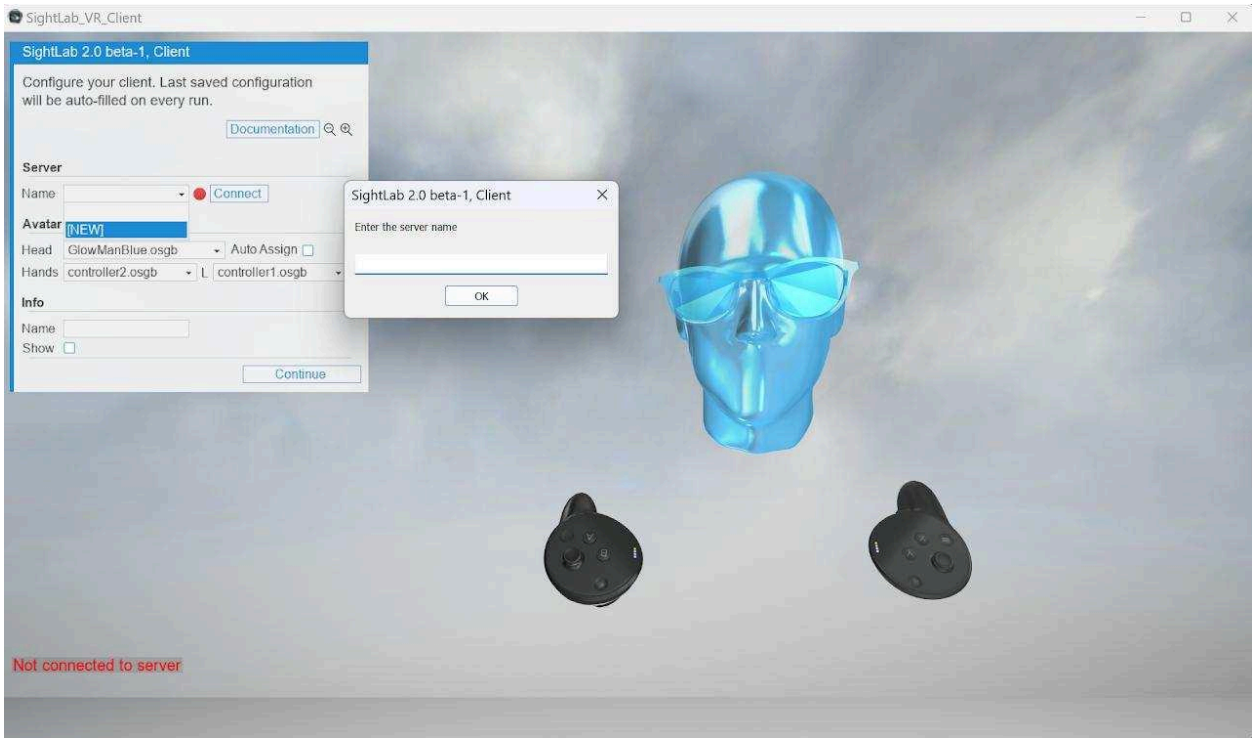


Set up all your experiment options as usual according to this page. Enter a Session ID that will be used for the data files as well if you wish.

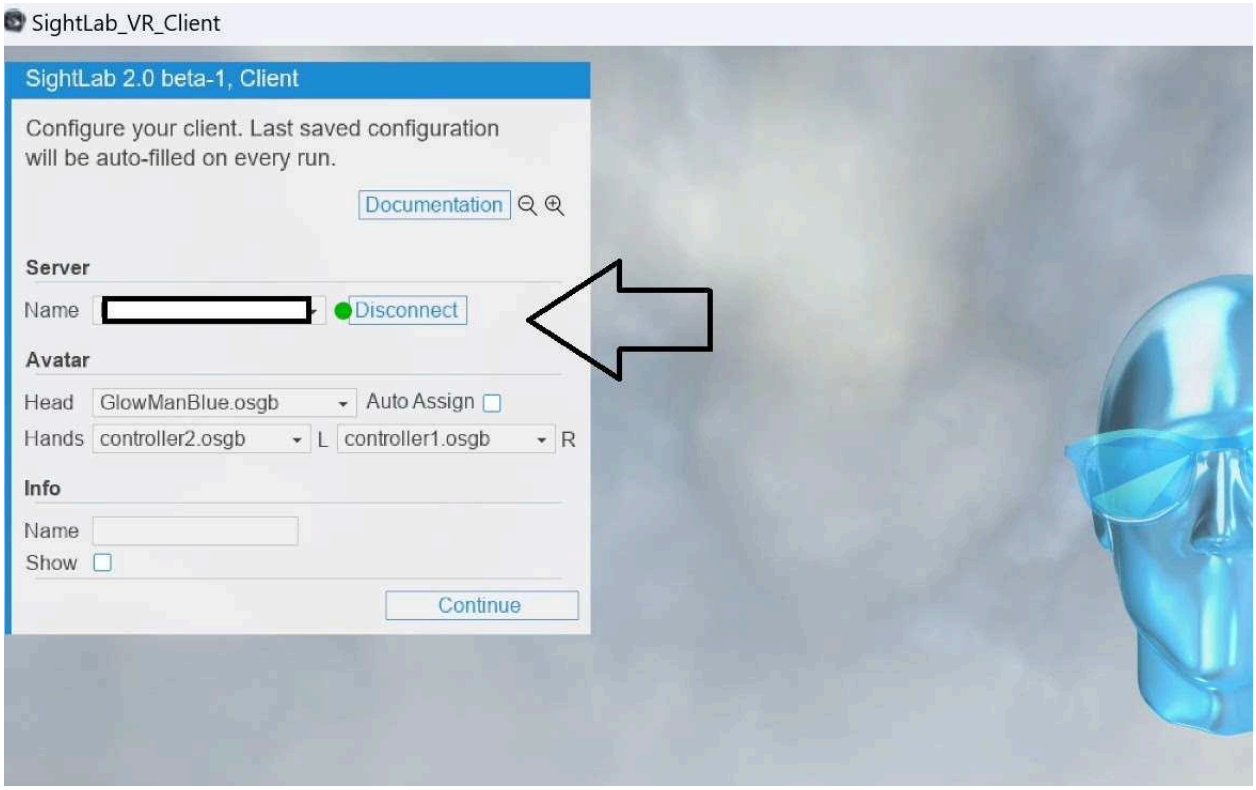


Run SightLab_VR_Client.py

If this is the first time logging in with this project you will need to enter the name of the computer running the server script. Click "New" in the Server Name dropdown list and a window will pop up where you can enter the name. After entering the name it will be stored and not need to be entered again within this project (multiple server connections will show up in the dropdown). To get the computer name you can type "About your PC" on the server machine into the Windows search bar and copy the name next to "Device Name"



Next click "Connect" to connect to the server



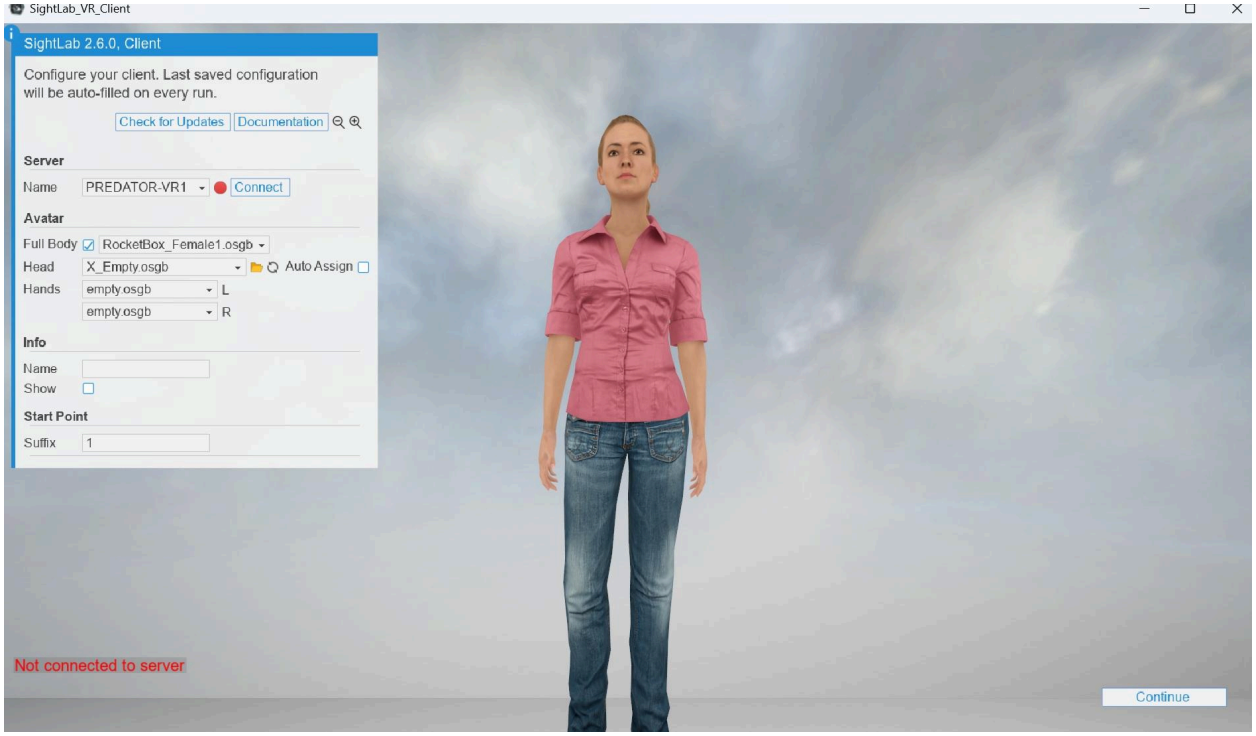
Once connected with the server you can choose your avatar under "Avatar", as well as your right and left hand controller models. If you wish you can also enter a Name

(otherwise an anonymous ID will be assigned). If you click "**Show**" the name tag can show above your avatar in the session. Click "**Auto Assign**" to automatically assign an avatar that is given a color associated with your assigned ID. Wait to make sure it says "Server Connected" below and then click "Continue" to let the server know you are ready.

See this page on how to create new custom avatars



As of SightLab 2.6 there are now options to have full body avatars. These are limited to the ones added in C:\Program Files\WorldViz\Sightlab2\sightlab_resources\avatar\TrackedAvatars. For more avatars than the ones included contact support@worldviz.com or sales@worldviz.com for optional avatar packages.

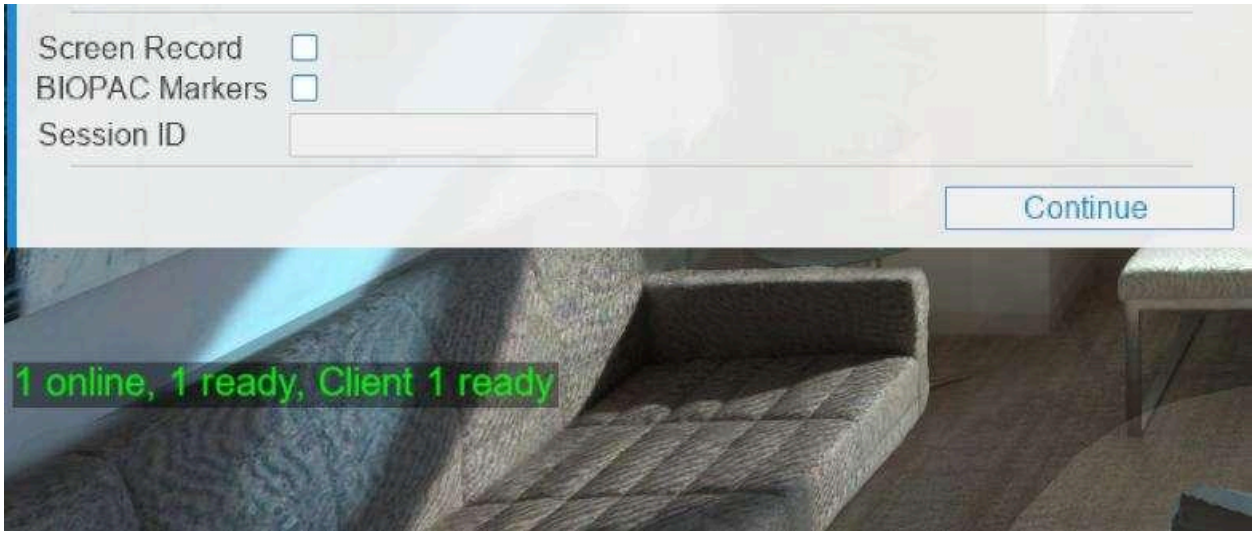


The "Suffix" field is for assigning starting points to ones with that same ID added in the scene using Inspector, see this page for more information.

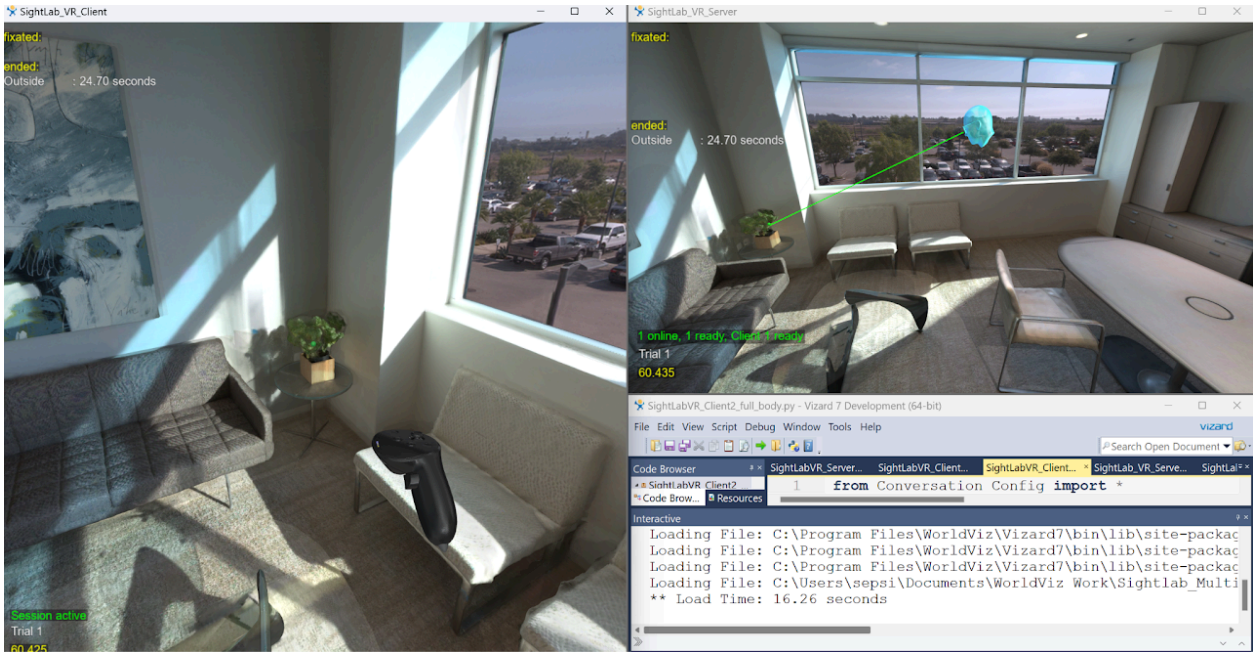
Choose hardware from various eye tracked headsets, desktop mode or non-eye tracked headsets (head position will be used for analytics of non-eyetracked headsets)



On the server side it will show how many clients have connected and how many are ready. Click "Continue" when the necessary clients are ready.



When the session starts you can view a bird's eye view of all the clients from the server view. Each client can view all the other clients from their machines.



- Press **spacebar** to start recording eye tracking data and view real-time fixations (unless this is changed to another key or event).
- Each client can use the **'P' key** to toggle the gazepoint on and off. It is always on for the mirrored view.
- **Navigation:**

- **For the server:**
  Use **UHJK** to move the viewpoint, **Y** and **I** to rotate left and right, **BN** to move up and down, and **O** and **L** to pitch up and down.
- **For SteamVR-based headsets:**
  Use **RH Trackpad** to teleport and **LH Trackpad** for smooth locomotion. **LH grip** to rotate left and **RH grip** to rotate right.
- **For Meta:**
  Use **RH thumbstick** to teleport and **LH Stick** while holding the **RH 'B' button** for smooth locomotion.
- These can be changed if needed using vizconnect.
- See the "**Controls**" page for more information on controls.
- Press **spacebar** to end or advance to the next trial, unless using a timer or another event.
- At this point, data files will be saved to the **data** folder.
- Press the **continue key** or wait for an event again to start a new trial, or press **escape** to exit.
- Once **“Experiment Complete”** text appears, Sightlab has reached the end of the last trial.
- Press **"TAB"** to see a list of all connected clients.

After you quit, you'll see data files will be saved in the "data" folder

Note that for the Demo version there is a 5 minute time limit on execution.

For more information see the Multi User Custom Experiments page for code specific to Multi User or the Multi User Example Scripts. Or see the additional pages in this documentation which should also apply to Multi User.

Trial_data shows a timestamp along with the x,y,z coordinates of the gaze intersect (combined and individual eye), eye euler, head position (6DOF), Fixation/Saccade status, saccade amplitude, velocity, average amplitude, peak velocity, pupil diameter, eye openness (if you are using a headset that tracks those), and custom flags. See documentation on how you can add more items to this file

p_id	date/ time	label	timestamp	combined eye intersect x	combined eye intersect y	combined eye intersect z	left eye intersect x	left eye intersect y	left eye intersect z	right eye intersec	right eye intersect y	right eye intersect z	left eye yaw	left eye pitch	left eye roll	right eye yaw	right eye pitch	right eye roll	head x	head y	head z	head yaw	head pitch	head roll	fixation status	saccade amplitude	saccade velocity	flag
12	06-19-A		4.971	2.822	0.032	-1.072	2.822	0.032	-1.072	2.822	0.032	-1.072	0	0	0	0	0	0	0	1.784	-0.87	94.193	31.77	0	SACCADE	0.493	30.793	-
12	06-19-A		4.988	2.8	0.032	-1.096	2.8	0.032	-1.096	2.8	0.032	-1.096	0	0	0	0	0	0	0	1.784	-0.87	94.733	31.95	0	SACCADE	0.636	37.431	-
12	06-19-A		5.005	2.778	0.032	-1.13	2.778	0.032	-1.13	2.778	0.032	-1.13	0	0	0	0	0	0	0	1.784	-0.87	95.453	32.13	0	SACCADE	0.635	37.362	-
12	06-19-A		5.021	2.755	0.032	-1.163	2.755	0.032	-1.163	2.755	0.032	-1.163	0	0	0	0	0	0	0	1.784	-0.87	96.173	32.31	0	SACCADE	0.562	35.097	-
12	06-19-A		5.038	2.733	0.031	-1.191	2.733	0.031	-1.191	2.733	0.031	-1.191	0	0	0	0	0	0	0	1.784	-0.87	96.803	32.49	0	SACCADE	0.42	24.691	-
12	06-19-A		5.054	2.711	0.031	-1.21	2.711	0.031	-1.21	2.711	0.031	-1.21	0	0	0	0	0	0	0	1.784	-0.87	97.253	32.67	0	SACCADE	0.389	24.323	-
12	06-19-A		5.071	2.699	0.031	-1.23	2.699	0.031	-1.23	2.699	0.031	-1.23	0	0	0	0	0	0	0	1.784	-0.87	97.703	32.76	0	SACCADE	0.316	18.57	-
12	06-19-A		5.089	2.688	0.031	-1.245	2.688	0.031	-1.245	2.688	0.031	-1.245	0	0	0	0	0	0	0	1.784	-0.87	98.063	32.85	0	SACCADE	0.802	44.542	-
12	06-19-A		5.105	2.654	0.031	-1.283	2.654	0.031	-1.283	2.654	0.031	-1.283	0	0	0	0	0	0	0	1.784	-0.87	98.963	33.12	0	FIXATION	0.535	{'avg: ', 69.051, 'peak	-
12	06-19-A		5.122	2.641	0.031	-1.311	2.641	0.031	-1.311	2.641	0.031	-1.311	0	0	0	0	0	0	0	1.784	-0.87	99.593	33.21	0	SACCADE	0	-	-
12	06-19-A		5.138	2.641	0.031	-1.311	2.641	0.031	-1.311	2.641	0.031	-1.311	0	0	0	0	0	0	0	1.784	-0.87	99.593	33.21	0	SACCADE	0	0	-
12	06-19-A		5.155	2.641	0.031	-1.311	2.641	0.031	-1.311	2.641	0.031	-1.311	0	0	0	0	0	0	0	1.784	-0.87	99.593	33.21	0	SACCADE	0	0	-
12	06-19-A		5.171	2.641	0.031	-1.311	2.641	0.031	-1.311	2.641	0.031	-1.311	0	0	0	0	0	0	0	1.784	-0.87	99.593	33.21	0	SACCADE	0.151	9.412	-
12	06-19-A		5.188	2.639	0.031	-1.319	2.639	0.031	-1.319	2.639	0.031	-1.319	0	0	0	0	0	0	0	1.784	-0.87	99.773	33.21	0	SACCADE	0.301	17.717	-
12	06-19-A		5.205	2.636	0.031	-1.336	2.636	0.031	-1.336	2.636	0.031	-1.336	0	0	0	0	0	0	0	1.784	-0.87	100.133	33.21	0	SACCADE	0.729	42.856	-
12	06-19-A		5.221	2.603	0.031	-1.368	2.603	0.031	-1.368	2.603	0.031	-1.368	0	0	0	0	0	0	0	1.784	-0.87	100.943	33.48	0	SACCADE	0.918	57.355	-
12	06-19-A		5.238	2.102	0.353	-1.312	2.102	0.353	-1.312	2.102	0.353	-1.312	0	0	0	0	0	0	0	1.784	-0.87	102.023	33.66	0	SACCADE	0.625	36.773	-
12	06-19-A		5.255	1.613	0.675	-1.229	1.613	0.675	-1.229	1.613	0.675	-1.229	0	0	0	0	0	0	0	1.784	-0.87	102.743	33.84	0	SACCADE	0.768	45.185	-
12	06-19-A		5.272	1.503	0.74	-1.229	1.503	0.74	-1.229	1.503	0.74	-1.229	0	0	0	0	0	0	0	1.784	-0.87	103.643	34.02	0	SACCADE	0.694	40.846	gaze st
12	06-19-A		5.289	1.415	0.791	-1.229	1.415	0.791	-1.229	1.415	0.791	-1.229	0	0	0	0	0	0	0	1.784	-0.87	104.453	34.2	0	FIXATION	0.481	{'avg: ', 25.064, 'peak	-
12	06-19-A		5.305	1.362	0.819	-1.229	1.362	0.819	-1.229	1.362	0.819	-1.229	0	0	0	0	0	0	0	1.784	-0.87	104.993	34.38	0	FIXATION	0.074	-	-
12	06-19-A		5.321	1.353	0.825	-1.229	1.353	0.825	-1.229	1.353	0.825	-1.229	0	0	0	0	0	0	0	1.784	-0.87	105.083	34.38	0	FIXATION	0	-	-
12	06-19-A		5.338	1.353	0.825	-1.229	1.353	0.825	-1.229	1.353	0.825	-1.229	0	0	0	0	0	0	0	1.784	-0.87	105.083	34.38	0	SACCADE	0	-	-
12	06-19-A		5.355	1.353	0.825	-1.229	1.353	0.825	-1.229	1.353	0.825	-1.229	0	0	0	0	0	0	0	1.784	-0.87	105.083	34.38	0	SACCADE	0	0	-
12	06-19-A		5.371	1.353	0.825	-1.229	1.353	0.825	-1.229	1.353	0.825	-1.229	0	0	0	0	0	0	0	1.784	-0.87	105.083	34.38	0	SACCADE	0.074	4.641	-
12	06-19-A		5.388	1.345	0.831	-1.229	1.345	0.831	-1.229	1.345	0.831	-1.229	0	0	0	0	0	0	0	1.784	-0.87	105.173	34.38	0	SACCADE	0.074	4.37	-
12	06-19-A		5.405	1.337	0.836	-1.229	1.337	0.836	-1.229	1.337	0.836	-1.229	0	0	0	0	0	0	0	1.784	-0.87	105.263	34.38	0	SACCADE	0.223	13.108	-
12	06-19-A		5.422	1.312	0.852	-1.229	1.312	0.852	-1.229	1.312	0.852	-1.229	0	0	0	0	0	0	0	1.784	-0.87	105.533	34.38	0	SACCADE	0.836	49.164	-
12	06-19-A		5.438	1.229	0.901	-1.229	1.229	0.901	-1.229	1.229	0.901	-1.229	0	0	0	0	0	0	0	1.784	-0.87	106.523	34.56	0	SACCADE	0.526	32.894	-
12	06-19-A		5.455	1.182	0.929	-1.229	1.182	0.929	-1.229	1.182	0.929	-1.229	0	0	0	0	0	0	0	1.784	-0.87	107.153	34.65	0	FIXATION	0.526	{'avg: ', 14.816, 'peak	-
12	06-19-A		5.472	1.137	0.956	-1.229	1.137	0.956	-1.229	1.137	0.956	-1.229	0	0	0	0	0	0	0	1.784	-0.87	107.783	34.74	0	FIXATION	0.239	-	-

Experiment Summary - Shows a summary of the view count, fixation count, dwell time, average view time, per trial saccade calculations, time to first fixation, as well as any additional data that you want to summarize per trial. See documentation on how to add more data.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Participant ID	Experiment Date/Time	Last Name	First Name	Trial Number	Label	Object	View Count	Fixation Count	Total Dwell Time	Avg Time	Avg Saccac	Avg Saccadic	Saccadic '	Time to First Fixation
	06-13-2024-20-40-00			1	A	basketball	1	1	1.885	1.885				
	06-13-2024-20-40-00			1	A	soccerball	1	4	2.252	2.252				
	06-13-2024-20-40-00			1	A	volleyball	1	1	1.184	1.184				
	06-13-2024-20-40-00			1	A	ENTIRE_SCENE	3	26	5.321	1.774	0.342	37.337	233.366	basketball: 1.668
	06-13-2024-20-40-09			2	B	basketball	1	1	0.851	0.851				
	06-13-2024-20-40-09			2	B	soccerball	1	2	0.817	0.817				
	06-13-2024-20-40-09			2	B	volleyball	0	0	0	0				
	06-13-2024-20-40-09			2	B	ENTIRE_SCENE	2	12	1.668	0.556	0.31	35.19	233.095	basketball: 3.571
	06-13-2024-20-40-16			3	C	basketball	1	1	0.717	0.717				
	06-13-2024-20-40-16			3	C	soccerball	0	2	0	0				
	06-13-2024-20-40-16			3	C	volleyball	1	1	1.051	1.051				
	06-13-2024-20-40-16			3	C	ENTIRE_SCENE	2	8	1.768	0.589	0.452	61.531	276.491	basketball: 0.534

Trial Timeline Dwell - Shows a timeline of when objects were viewed, for how long, and how many fixations there were per object

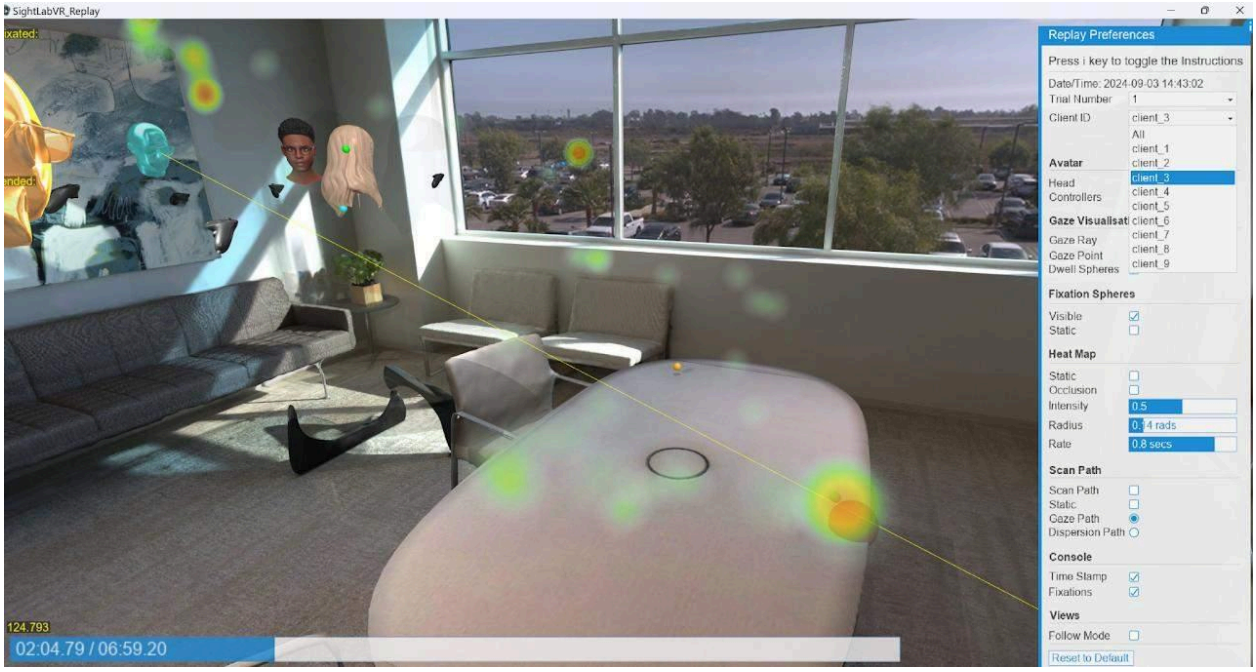
A	B	C	D	E	F	G	H	I
Participant ID	Trial Date/Time	Last Name	First Name	Time Stamp	Object	Dwell Time	Fixation Count	
	04-28-2024-21-35-42			2.82	Soccerball	1.151	1	
	04-28-2024-21-35-42			4.604	Soccerball	0.684	1	

Trial Timeline Fixation Saccade - (2.5 or higher) shows a timeline of fixations and saccades, fixation/saccade length, average fixation dispersion angle and average saccade velocity

A	B	C	D	E	F	G	H	I	J	K
Participant	Trial Date/T	Last Name	First Name	Trial Numb	Time Stamp	Type	ROI/Object	Duration (s	Average Dispersion (deg)	Average Velocity (deg/sec)
	07-19-2025-08-52-36			1	0.001	FIXATION	None	0.285	0.017	None
	07-19-2025-08-52-36			1	0.298	FIXATION	None	0.101	0.017	None
	07-19-2025-08-52-36			1	0.411	SACCADE	None	0.099	0.032	40.484
	07-19-2025-08-52-36			1	0.522	FIXATION	None	0.055	0.016	None
	07-19-2025-08-52-36			1	0.589	FIXATION	None	0.067	0.014	None
	07-19-2025-08-52-36			1	0.667	FIXATION	None	0.056	0.015	None
	07-19-2025-08-52-36			1	0.734	FIXATION	None	0.087	0.017	None
	07-19-2025-08-52-36			1	0.832	FIXATION	None	0.077	0.017	None
	07-19-2025-08-52-36			1	0.92	FIXATION	None	0.057	0.016	None
	07-19-2025-08-52-36			1	0.988	SACCADE	None	0.111	0.034	36.768
	07-19-2025-08-52-36			1	1.11	FIXATION	lcd__tv.glb	0.241	0.015	None
	07-19-2025-08-52-36			1	1.365	FIXATION	lcd__tv.glb	0.204	0.017	None
	07-19-2025-08-52-36			1	1.58	FIXATION	None	0.276	0.017	None
	07-19-2025-08-52-36			1	1.866	FIXATION	None	0.3	0.017	None
	07-19-2025-08-52-36			1	2.177	FIXATION	None	0.233	0.017	None
	07-19-2025-08-52-36			1	2.42	FIXATION	None	0.233	0.013	None
	07-19-2025-08-52-36			1	2.665	SACCADE	None	0.034	0.017	97.169
	07-19-2025-08-52-36			1	2.711	FIXATION	None	0.055	0.014	None
	07-19-2025-08-52-36			1	2.778	SACCADE	None	0.468	0.459	116.36
	07-19-2025-08-52-36			1	3.258	FIXATION	None	0.088	0.017	None

Run the Session Replay/ SightLabVR Replay to view analytics such as heatmaps, scan paths, dwell time, walk paths, user interactions and more. Use spacebar to start and stop replay. Can be viewed either on the Desktop or in a headset. See the Session Replay page in the documentation for more information.

To view visualizations for only one client, select the Client ID in the dropdown



Screen Recordings - If "Screen Record" is checked, screen recordings will be saved to a new folder "recordings". It is suggested to install the moviepy python library via the Package Manager to compress the video recordings, as these come in uncompressed

by default. The video recordings can also be brought into Biopac Acqknowledge synchronized with the physiological recording if using Biopac. See the Biopac page for more information.

There is also a config.json file that saves your experiment settings, as well as .rply files in the replay_data folder, that is used for the session replay.

Note: You can additionally run an "Instructor" or "Presenter" client that can control the flow of the session and trials from within a headset and guide the clients. See the SightLab Projects\Multi User ExamplesScripts\Presentation Mode example.

Fix If Objects Don't Grab in the Same Location for Clients and Server

If you see the issue where grabbed objects in Multi-User appear in different locations, add this code to both the server and client scripts right before def sightLabExperiment

Right after calling in sightlab and before the sightLabExperiment add this function:

```
def extractGrabObjects():
    """Reparent grab objects to world root so networked position sync works
correctly
    when the GLB hierarchy has nested intermediate transform nodes."""
    for name, obj in list(sightlab.sceneObjects[GRAB_OBJECTS].items()):
        worldPos = obj.getPosition(viz.ABS_GLOBAL)
        worldOri = obj.getEuler(viz.ABS_GLOBAL)
        worldScale = obj.getScale(viz.ABS_GLOBAL)
        obj.setParent(viz.WORLD)
        obj.setPosition(worldPos, viz.ABS_GLOBAL)
        obj.setEuler(worldOri, viz.ABS_GLOBAL)

        obj.setScale(worldScale, viz.ABS_GLOBAL)
```