moreViz Guide: Powerwall / CAVE / DOME Hands on and First Start

Next the moreViz origin is calibrated. Firstly, lets understand what the moreViz origin is. To identify it, the main factor is the front screen's image size. The middle point of the front screen, half width and half heigt, should be identified. Projecting a rectangluarly line from the front screen's middle point, a half-screen-width-long distance is measured. This is the position of the moreViz Origin.
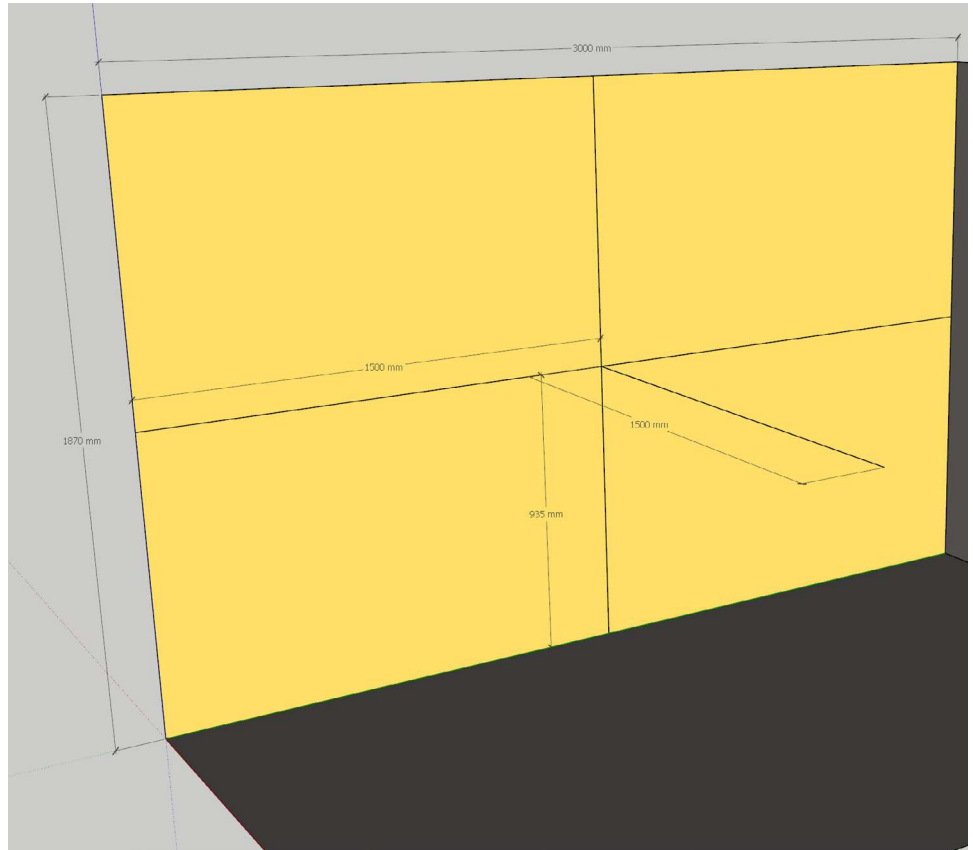
The example on the right assumes a front screen image width of 3000mm and a height of 1870mm. The resulting center point is 1500mm away from the screen, at a height of 935mm.

To calibrate this point as moreViz Origin, the tracked head target is placed to the position, then the "Save Origin" button is pressed.

For re-calibrations the Max X (see next step) value must be emptied before pressing "Save Origin".

Enter Max X. It is half the front screen's image width in meters. This scales the relative coordinates of the calibration to real-world coordinates.-
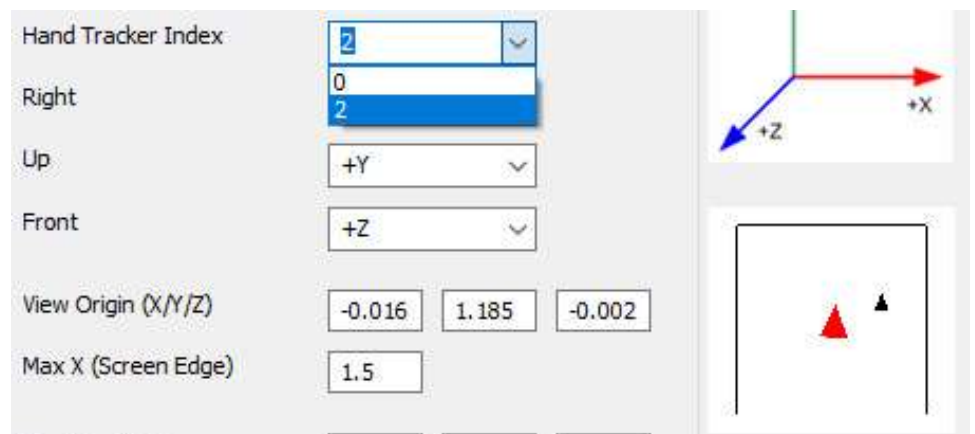
Bring your controller / flystick to the tracked area. Open the drop down at "Hand Tracker Index" and choose another index, usually index number 1,2 or 3. Once the correct index is found a smaller, black triangle appears in the CAVE representation.

A 3000x1870mm CAVE Front/Powerwall with the moreViz Origin 1500mm away from screen center

Setting Max X to 1.5 matches the shown example

The VRPN Translator with both Head Target (Red Marker) and Hand Target (Black Marker) detected

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Enter your controller's VRPN Server adress. Disconnect and connect the VRPN Translator to apply the newly added adress. Pushing the Analog Axis on your controller will make a data channel in raw channel data roll. The read data is shown in brackets [0.00]. The number in front of the brackets 0 … 5 indicates this currently pressed axis index. Enter the axis matching your controller or use one of moreViz's premade configuration files.

The Yaw channel rotates the view along Y axis.
The Pitch channel rotates along X axis.
The Roll channel rotates along Z axis.
The Fowards/Backwards (Menu) channel triggers forward and backwards movement as well switching between menu items in moreViz's VR menu.
The Left/Right (Menu) channel triggers parallel left and right movement as well switching between menu items in moreViz's VR menu.
The Up/Down channel triggers parallel up and down movement.
The Trigger trigger foward movement into the pointing direction of the tracked controller. Further, it is the "Enter" key for the VR menu, it activates the individual VR menu options.

Enter your controller's VRPN Server adress. Disconnect and connect the VRPN Translator to apply the newly added adress. Pushing a Button on your controller will show the button index and state in the Raw Button DAta. Enter a configuration matching your controller or use one of moreViz's premade configuration files.
The Fowards /Backwards (Menu) Buttons trigger foward / backward movement and select the above / below menu option.
The Left / Right (Menu) button triggers parallel Movement to the left / right or selects the left / right menu option.
The Up / Down buttons trigger parallel up / down movement.
The Menu button shows or hides the VR Menu.
The Trigger button triggers foward movement into the pointing direction of the tracked controller.
The Grab World Button attached the selected scene to the controller's position and orientation.

Lastly, make sure to save the configuration.

The Analog Configuation of the moreViz VRPN Translator

The Button Configuation of the moreViz VRPN Translator