FOLLOW-ME

TRACKING SOLUTIONS

TSL

Quick Start Guide

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Contents

Kit Contents

The Follow-Me Systems consists of the following:

- 1x Main Workstation Case
  - 3x 5m Ethercon
  - 2x 5m 3pin XLR
  - 3x 2m 3pin XLR
  - 1x Wireless Mouse
  - 2x Operator Kit (in drawer)
    - 1x 3D Mouse
    - 1x Fader Wing
    - 1x 4pin Link Cable
- 1 x Camera Case
  - 2x 75m Camera Looms (Power/Data/SDI)
  - 1x Spare 75m SDI Cable
  - 2x Camera Peli Case
    - 1x Follow-Me Camera Box
    - 1x 35kg safety Bond
    - 1x Marchal CV506 camera
    - 1x 2.3mm lens
    - 1x 2.8mm lens (fitted in camera)
    - 1x 3.6mm lens
- 1x Accessories Case
  - 1x Operator Kit (Peli Case)
    - 1x 3D Mouse
    - 1x Fader Wing
    - 1x 4pin Link Cable
  - 1 x 30m Input Loom (Power/Comms/Ethercon)

Connecting & starting the system

Step 1: Plug the 30m input loom into the rack. this supplies the rack with power, network (if needed) and a comms feed (if required). Power can plug into the 16a that trails out of the centre divide of the rack. If network connection is needed, this plugs straight into the switch in the ports labelled “STAGE DATA IN+LINK”.

Step 2: Clamp both cameras in place, ensuring they will have a clear view over the entire space you will be tracking, these will receive power, data from the rack using the supplied 75m looms. The cameras come fitted with a 2.8m lens as standard but the kit also contains a 2.3mm and 3.6mm if required. If a lens swap is required, simply unscrew the current lens from the front of the camera and screw in the one required.

Step 3: Run both of the 75m camera looms from the control rack to the cameras. At the rack end; the connections connect to the trailing leads from the centre divider. The green cables are used for the main server and the purple cables for the backup server. On the camera end it doesn’t matter which loom goes to which camera.

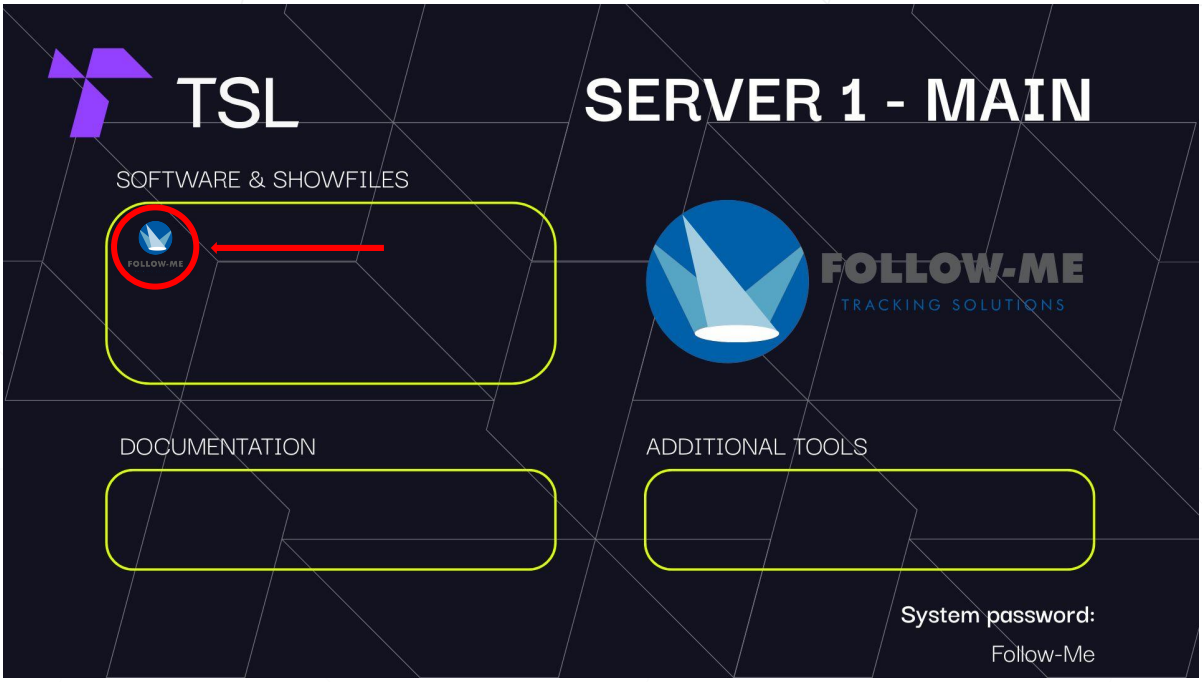
Step 4: Set up the 3D Mouse and Fader Wings as required; 2 sets are set up already in the pull out drawer. 2 more sets can be found in the rackmount drawers and a spare system can be found in a pelicase in the accessories flight case. Ethercon cable for the extra controllers can be found in the top rack drawers, these can be plugged into the mouse unit and into the network switch in ports “CON3”, “CON 4” or “CON 5”. “CON 1” and “CON 2” sockets are used for the 2 controllers in the pull out drawer.

Step 5: Start up the UPS. This is done by pressing then pressing and holding the power button on the UPS. Once active everything in the rack will be supplied power. The monitors, switch and nose will all boot up automatically.

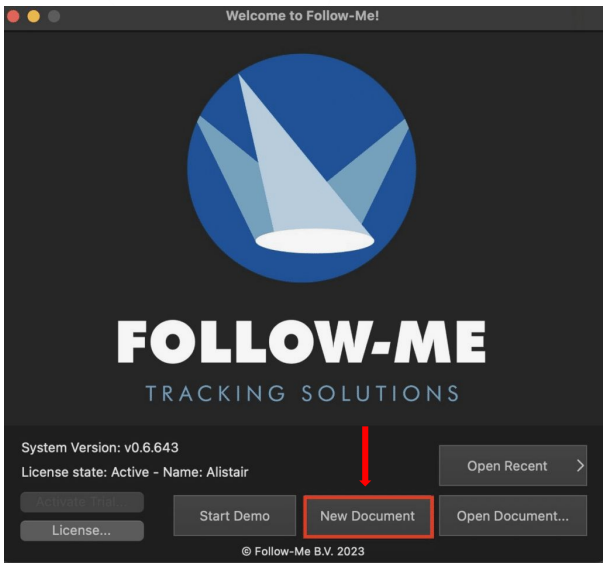
Step 6: Boot up the main server. This is done by pressing the power button labelled “Power”. At this point you will also require the wireless keyboard and mouse from the second rack drawer. For both the keyboard and mouse, the power switches are located underneath the products. If required spare AAA batteries can be found with the spare bnc couplers in rack drawer one.

The server will automatically log in.

Opening Follow-Me & Starting A Show



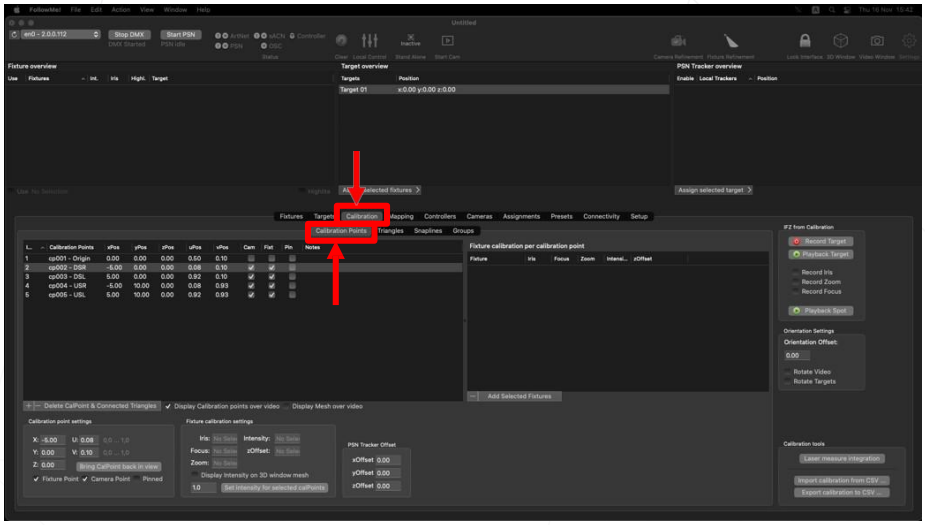
Step 1: Double click the Follow-Me icon on the desktop.



Step 2: When the welcome dialogue opens click “New Document”. This will open a new blank Follow-Me file.

Step 3: Drag the monitor window onto the second display, that should be showing the live camera feed (this may be upside down, we can fix that later), this will allow you to see the main window.

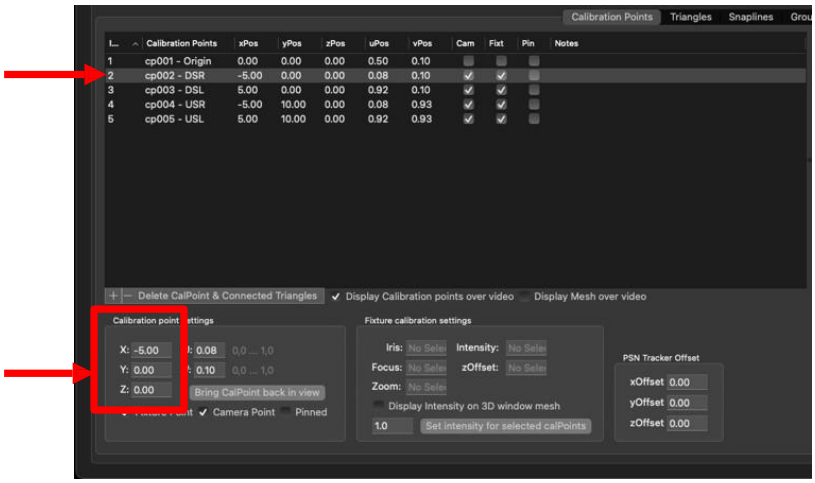
Stage and Camera Calibration



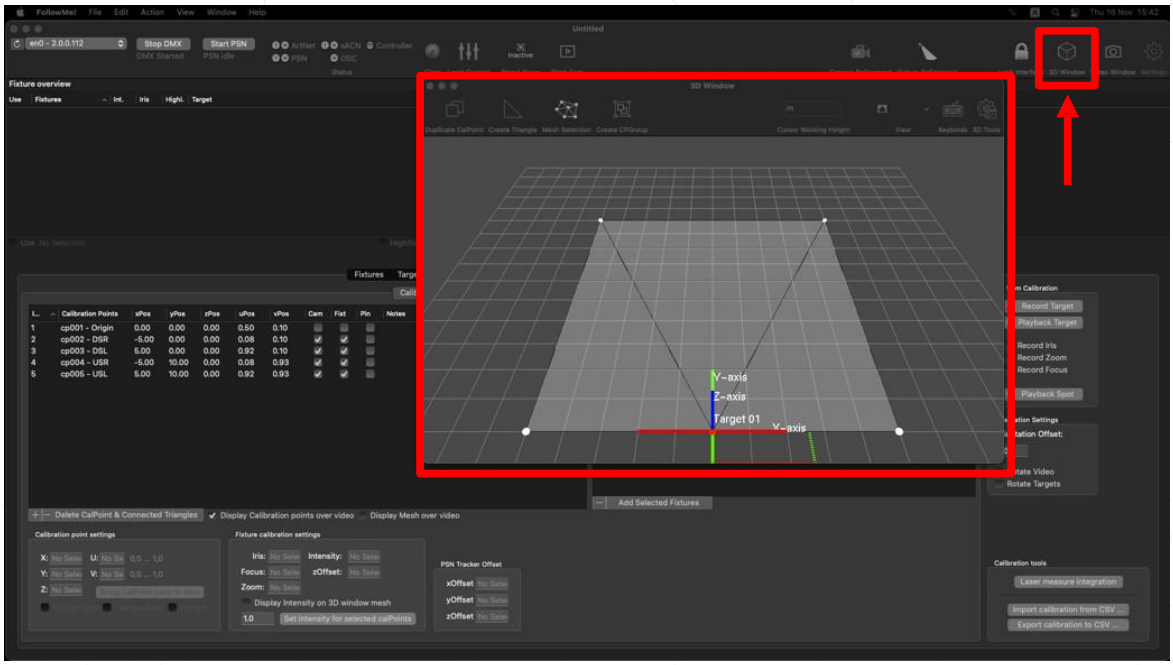
Step 4: Go to the “Calibration” tab then the “Calibration Points” sub tab.

Step 5: By default on a new show; Follow-Me adds 5 calibration points Origin, DSL, DSR, USL, USR designed for a 10m x 10m stage area. This setup with 5 points will work for most simple stages. Start by marking your origin point, we recommend making this downstage centre and marking using fluro tape that can be easily spotted on the camera, this will help during camera refinement later. Once your origin is marked also choose and mark your other 4 points, these do not have to be the edge of your tracked area but can be placed in from the edge required to allow for easier access and focusing.

Step 6: Oce all your points are marked they can all be measured, all points are measured from the origin point with that being 0,0,0. Follow-Me works in 3D space so will want coordinates for all of the points, to assist with this there is a laminated calibration guide that should point out the right direction for measuring them. All measurements want to be completed and entered in Metres.



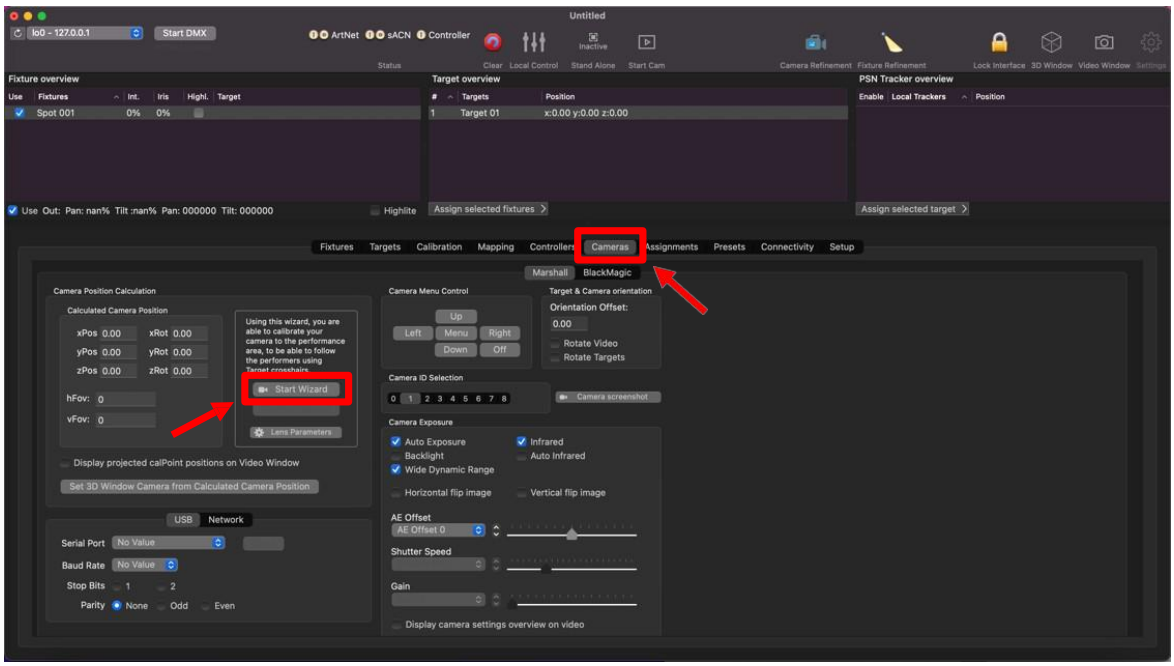
Step 7: Once you have the desired measurements for all your points they can be entered into Follow-Me. Select the desired calibration point from the list and you can edit its X, Y and Z measurements as required. Again, we recommend leaving the origin at 0,0,0. A completely flat stage should have a Z of 0 as there are no height changes.



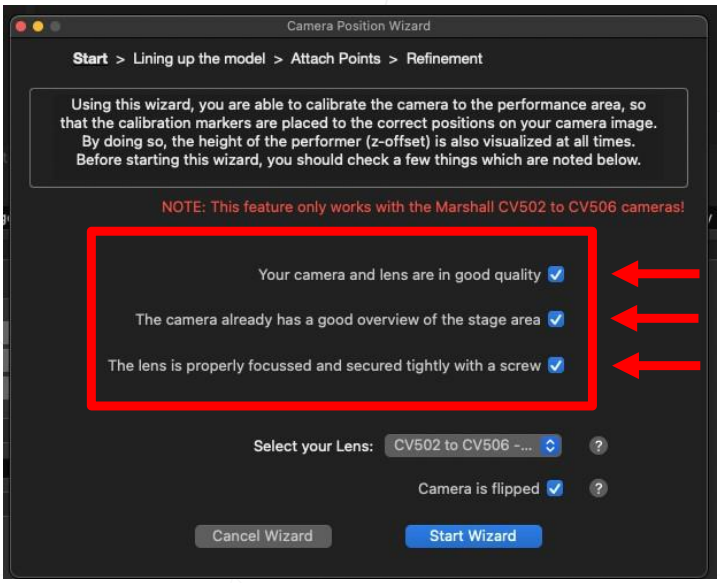
Step 8: Once all the calibration points are entered click on the button that says “3D window” at the top of the screen, this will show you the 3D mesh that has been created with the points. If the mesh doesn’t look correct then one or more of your points is probably wrong. This is a good way of checking for errors before getting too far.

For the this next step be aware that it’s possible to fully unscrew the lens.

Step 9: Focus the camera, looking at the live view on the video window make sure all the points are visible and in focus. The camera can be focused by twisting the front lens. Again this may be upside down, we can fix that next.

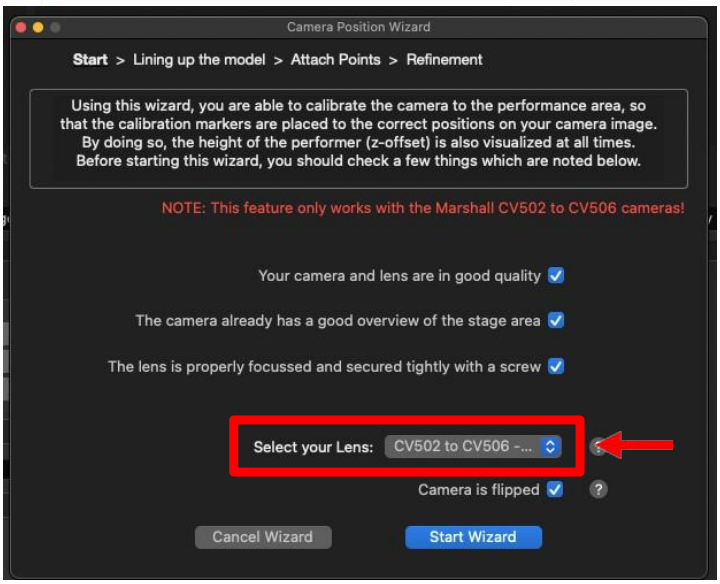


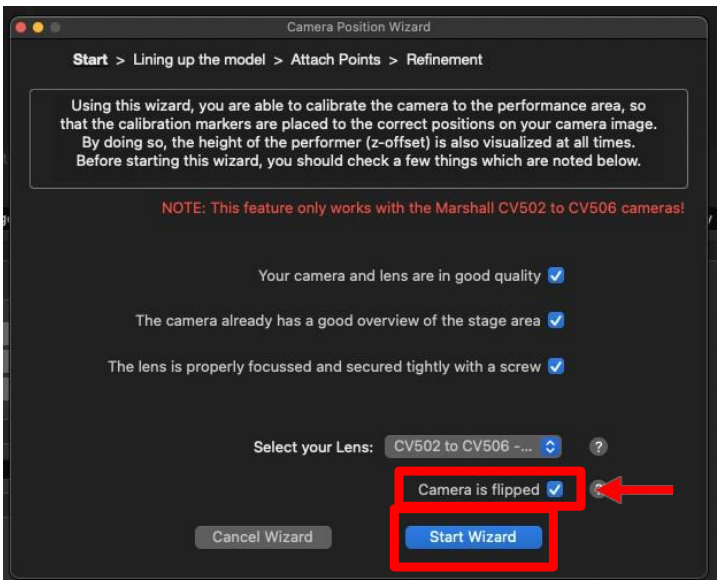
Step 10: Go to the “Cameras” tab then click “Start Wizard”. This will open a dialogue that will guide you through camera setup.



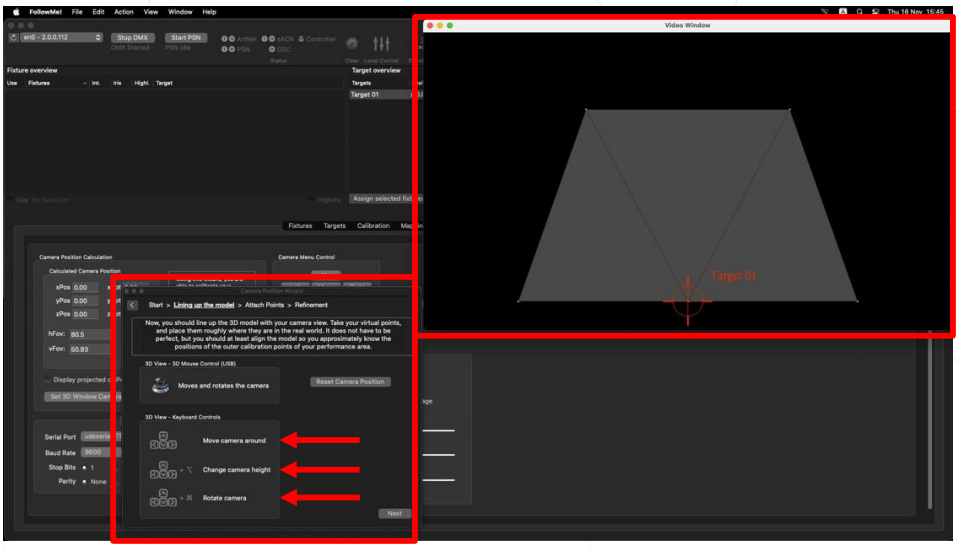
Step 11: First there are 3 checkboxes, these boxes do nothing but are more checks for you to make sure it is physically set up correctly before continuing.

Step 12: Next select the lens you have installed in the camera, unless you have swapped it the option you will want to choose will be “CV502 to CV506 - 2.8mm”.

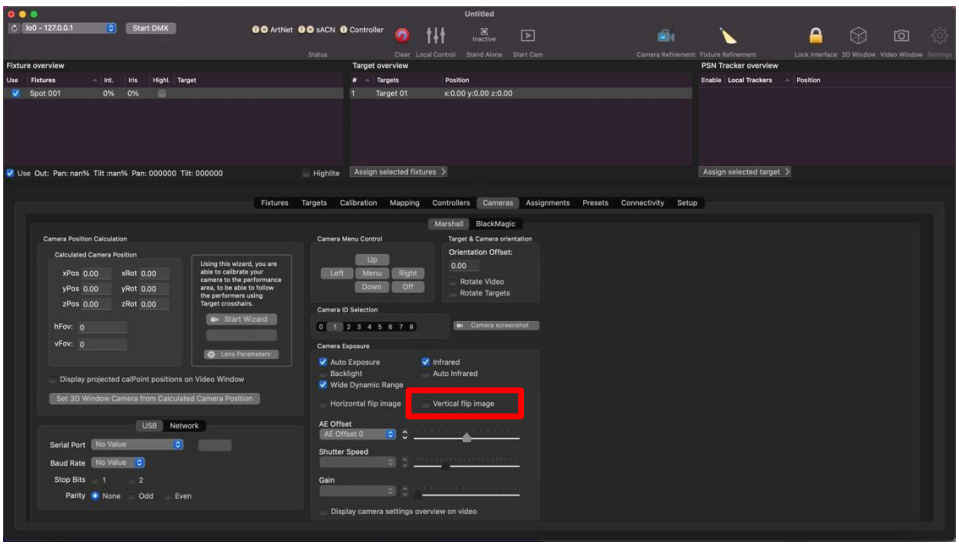




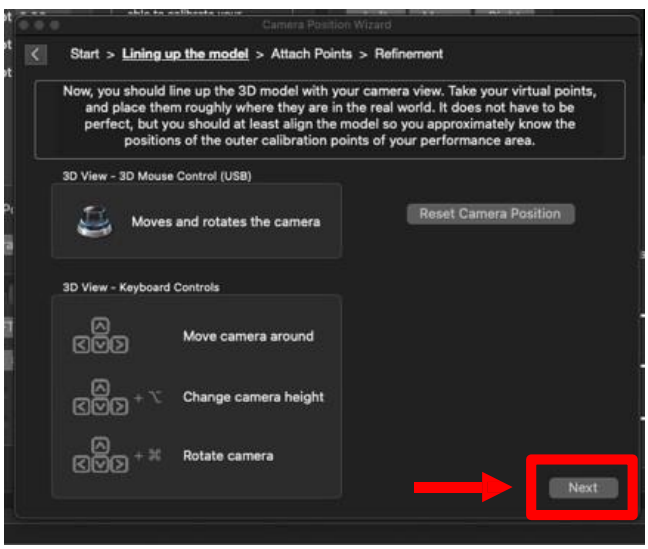
Step 13: If the camera is hung or inverted then tick the option that says “Camera is flipped”. This will invert the image so it appears the right way up.



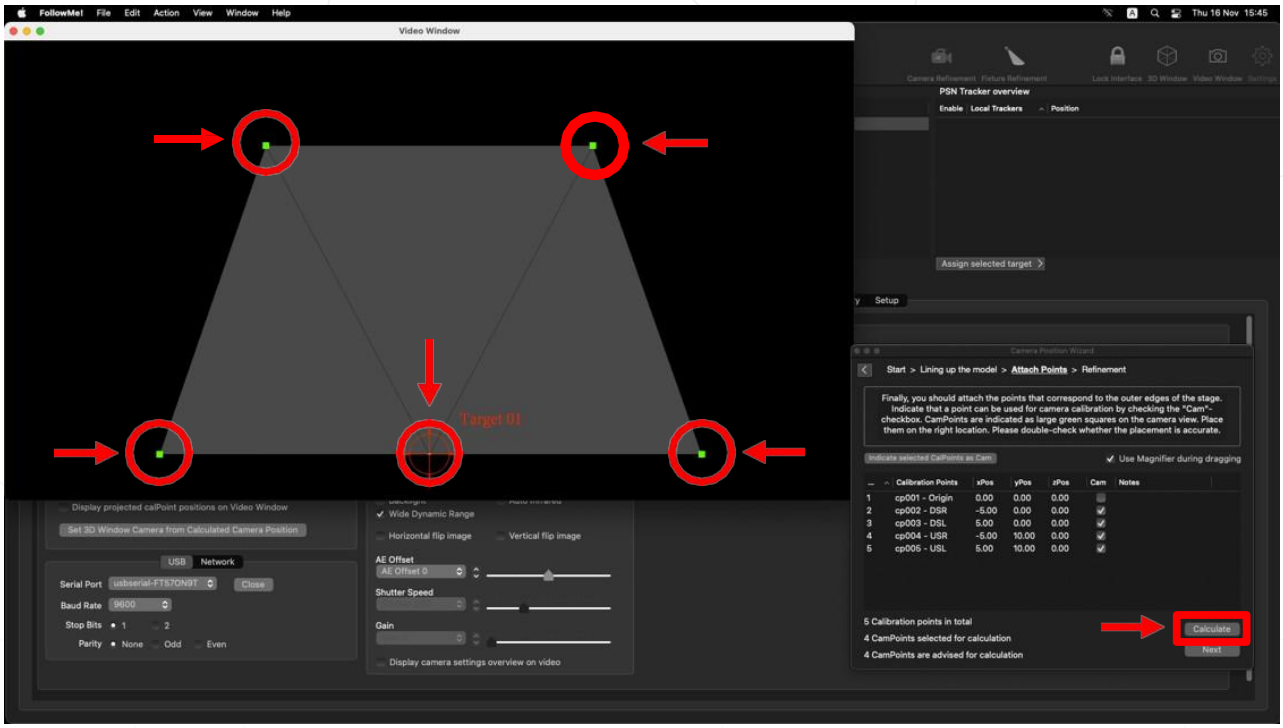
Step 14: Click “Start Wizard”. This will bring up the 3D window and display the mesh created earlier over the live video feed. The idea is to line up the created mesh with the real world points as closely as possible. Use the keyboard arrow keys to move the mesh around, hold Alt and use arrow keys to change the mesh height and hold Windows and use arrows to rotate the mesh.



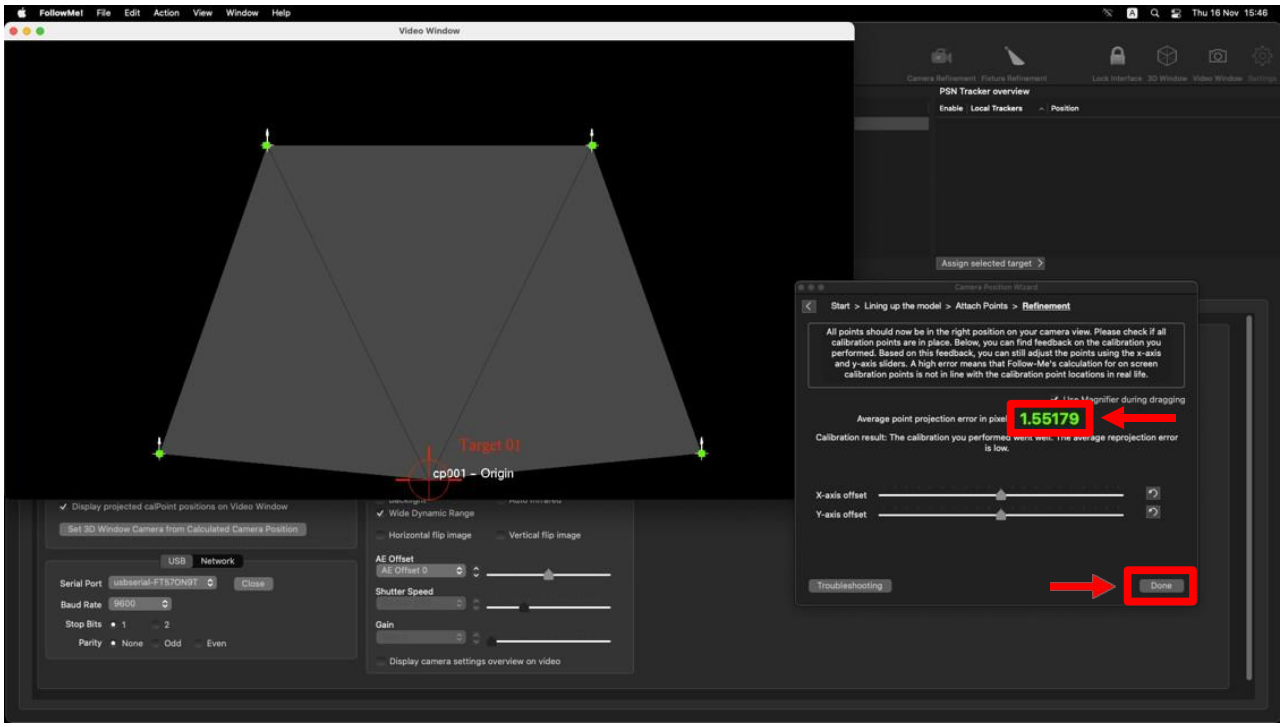
If the camera feed is still upside down click on the main Follow-Me window and click the button labelled “vertical image flip” on the camera control menu.



Once the mesh is as close as you can get it click “Next”.



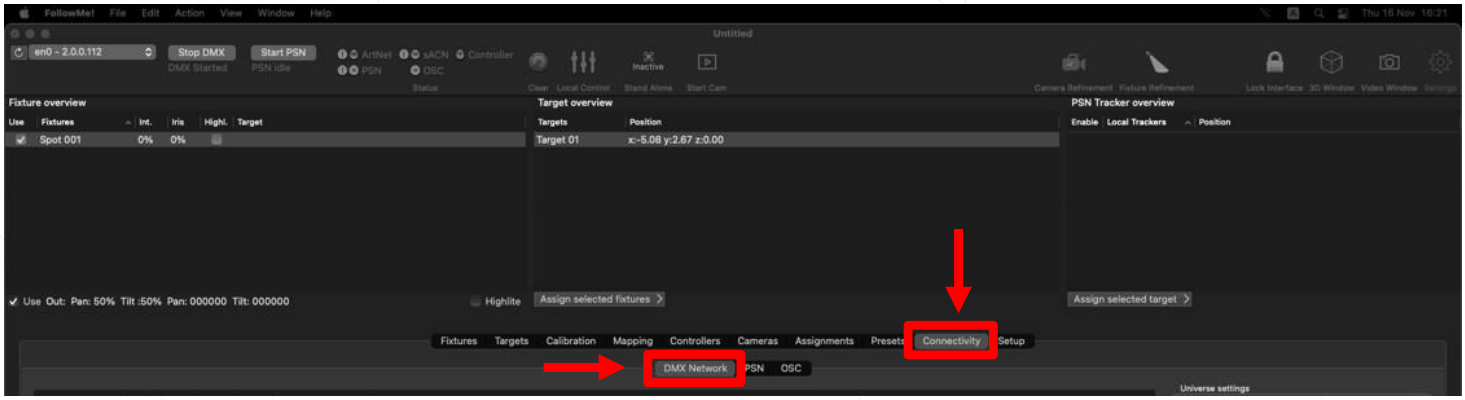
Step 15: On the video window you can now click and drag the points on the mesh to line them up with the real world points you marked and measured from earlier. The more visible you make the markers earlier the easier they will be to spot now. When a point is clicked on it will zoom in slightly to help lining up.



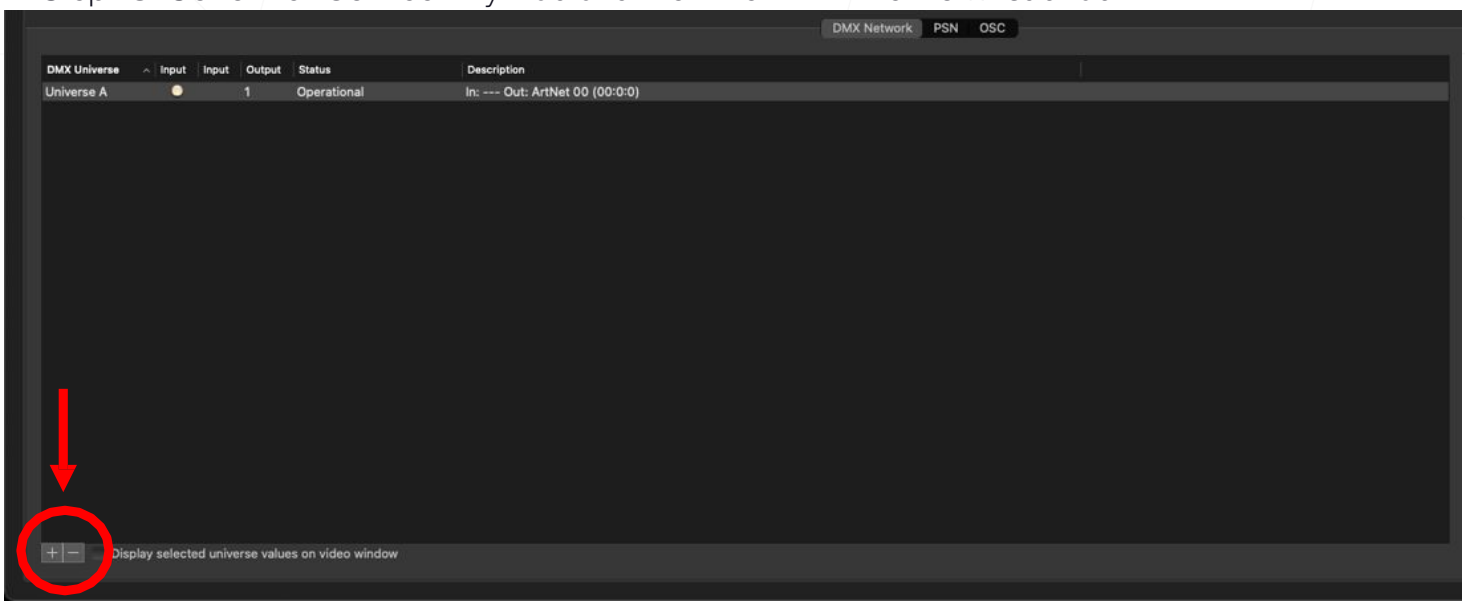
Step 16: Once all points have been completed click “Calculate” then click “Next”. This will show you the average projection error in pixels, this should ideally be as low as possible. A green number is perfect, a yellow one is ok and red is could be better.

Step 17: Once complete press “Done”. That is stage and camera calibration complete.

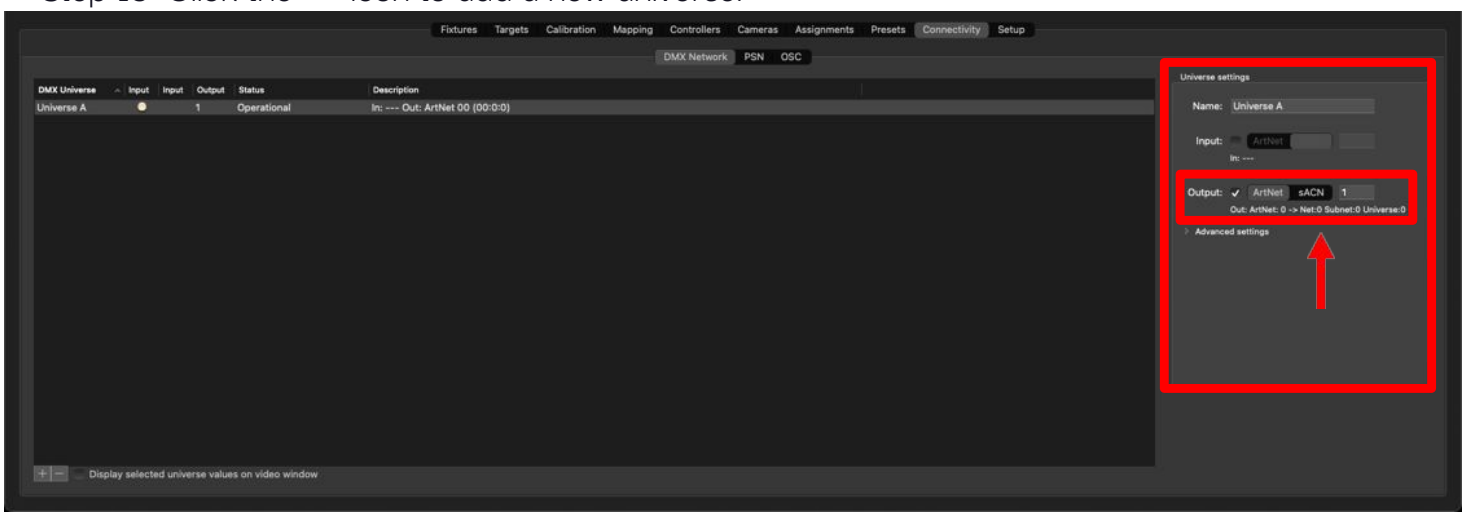
Fixture Setup



Step 18: Go to the “Connectivity” tab and then the “DMX Network” sub tab.

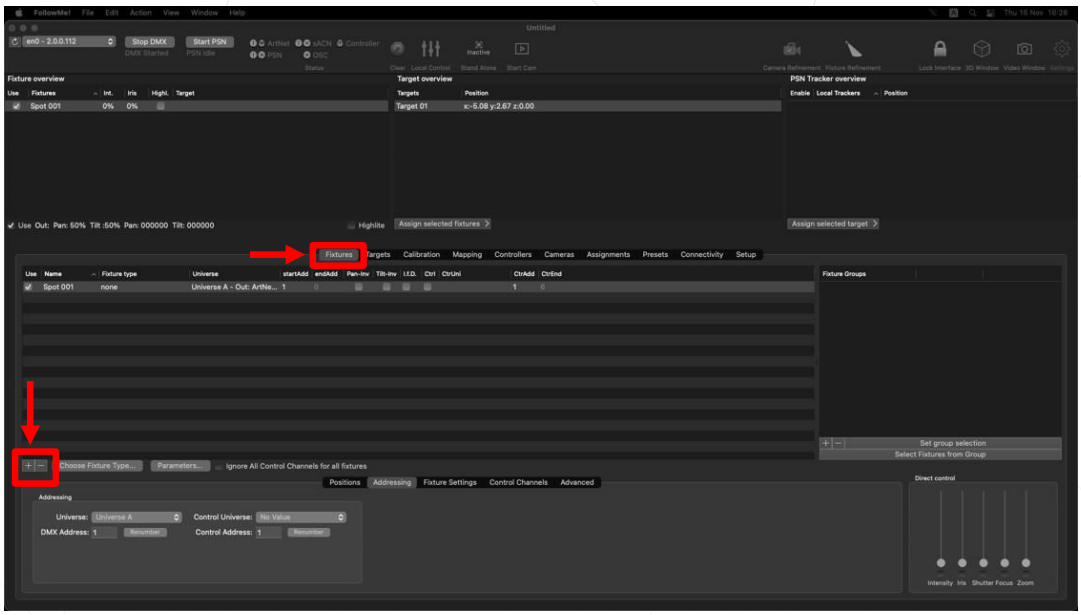


Step 19: Click the “+” icon to add a new universe.



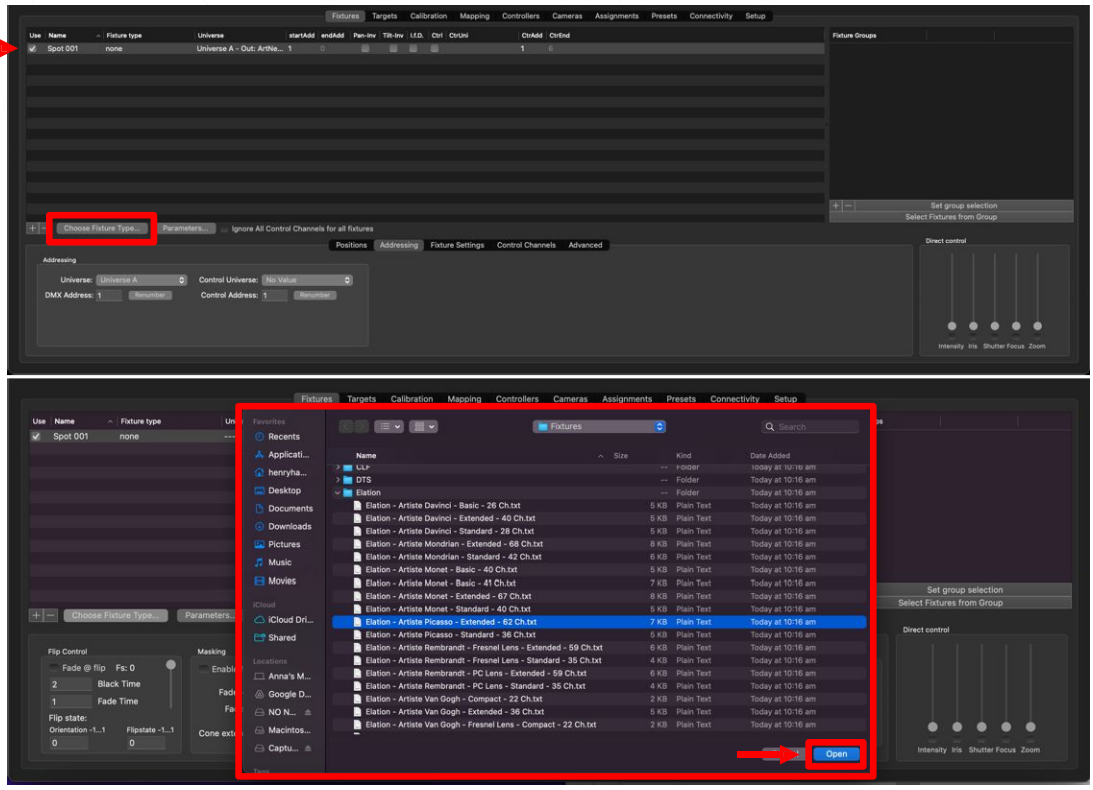
Step 20: Select the added universe so that you can adjust its settings, tick the box labelled output and select whether you want to use ArtNet or sACN depending on your node setup. If using the inbuilt rack node this is setup to run ArtNet.

Step 21: Enter what universe you wish to output on. If running ArtNet please note that Follow-Me counts from 1 not 0. So output on ArtNet 4 enter 5 and so on.

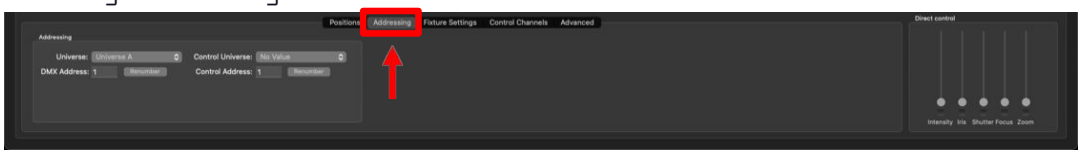


Step 22: Go to the “Fixtures” tab.

Step 23: Click the “+” icon to add as many heads as Follow-Me needs to control.

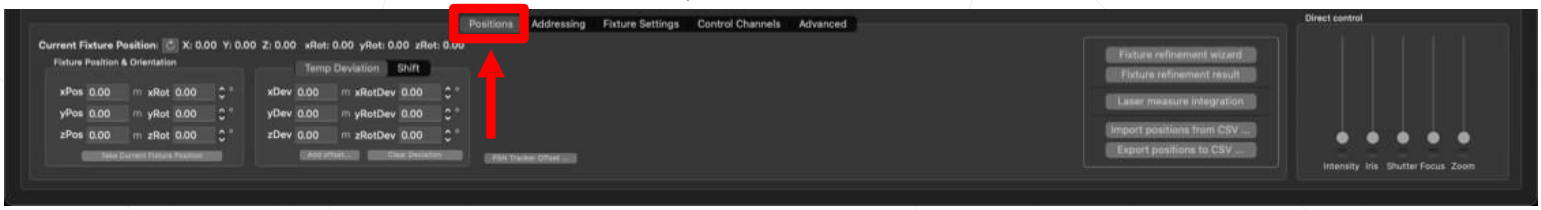


Step 24: Once all the heads have been added select one, then click “Choose Fixture Type” and select one from the dialogue that opens. Repeat for all heads. Using shift multiple heads can be selected and changed in one go.

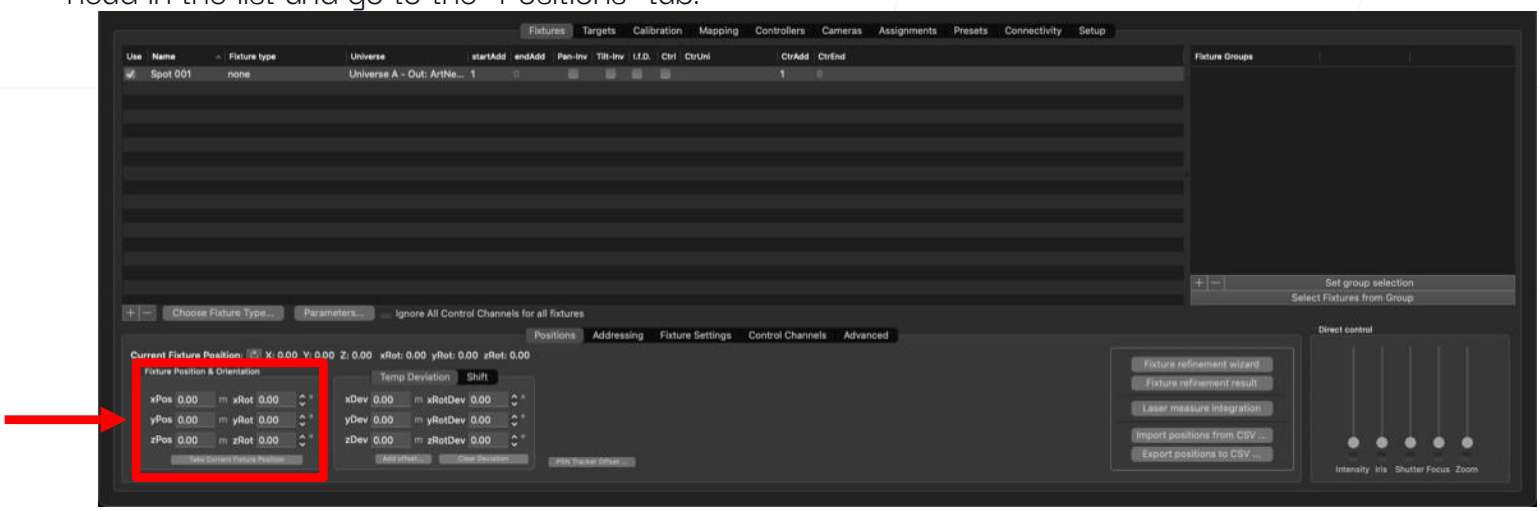


Step 24: Once all fixture types have been assigned select the first fixture in the list and go on to the “Addressing” tab.

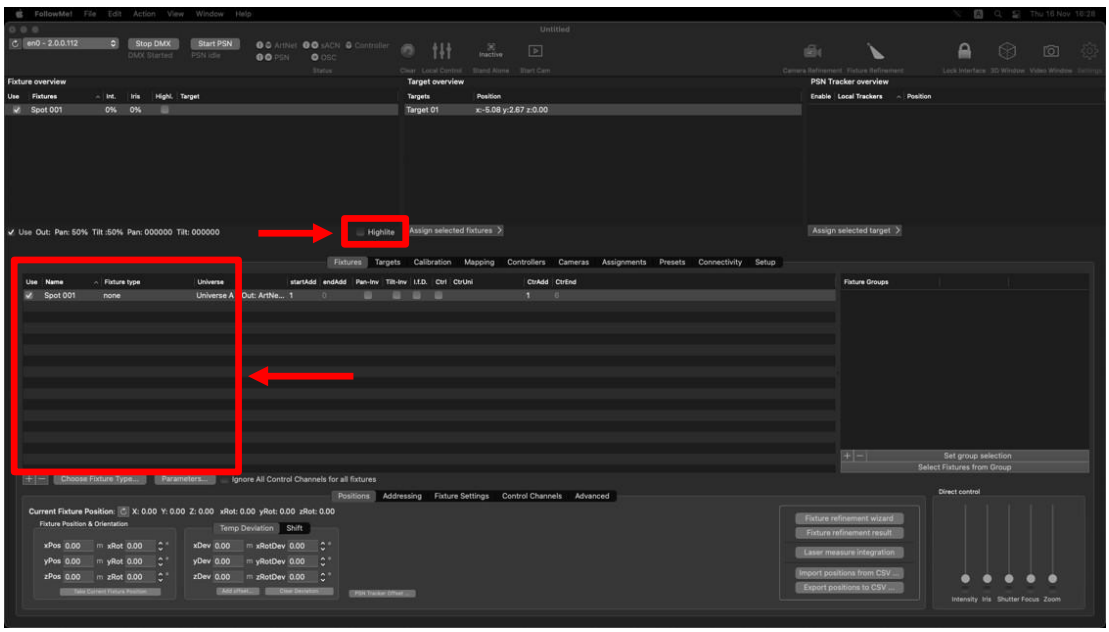
Step 26: Firstly select the universe the head is running on from the list of universes you just added. Then set the units DMX address, repeat for all heads added.



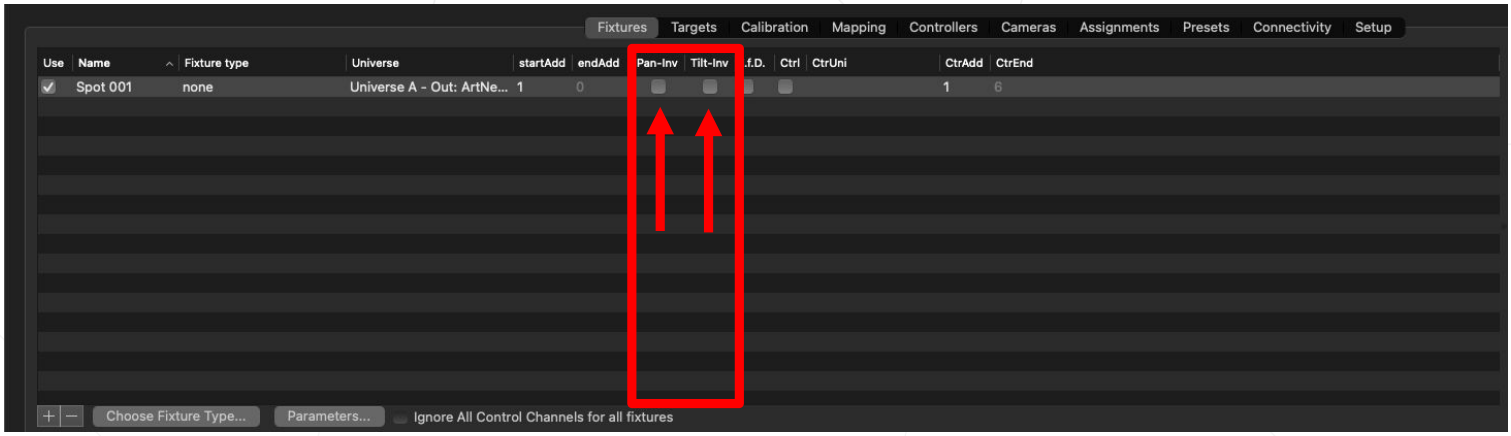
Step 27: Next you need to tell the system the location of every head in 3D space, select the first head in the list and go to the “Positions” tab.



Step 28: Measure and enter the position of the head in the exact same way as you did with the calibration markers earlier; again these are all measured from the origin point selected earlier. The Z position of each head is the height from the origin point to the heads pivot point. If required, also set the rotation data for each head.

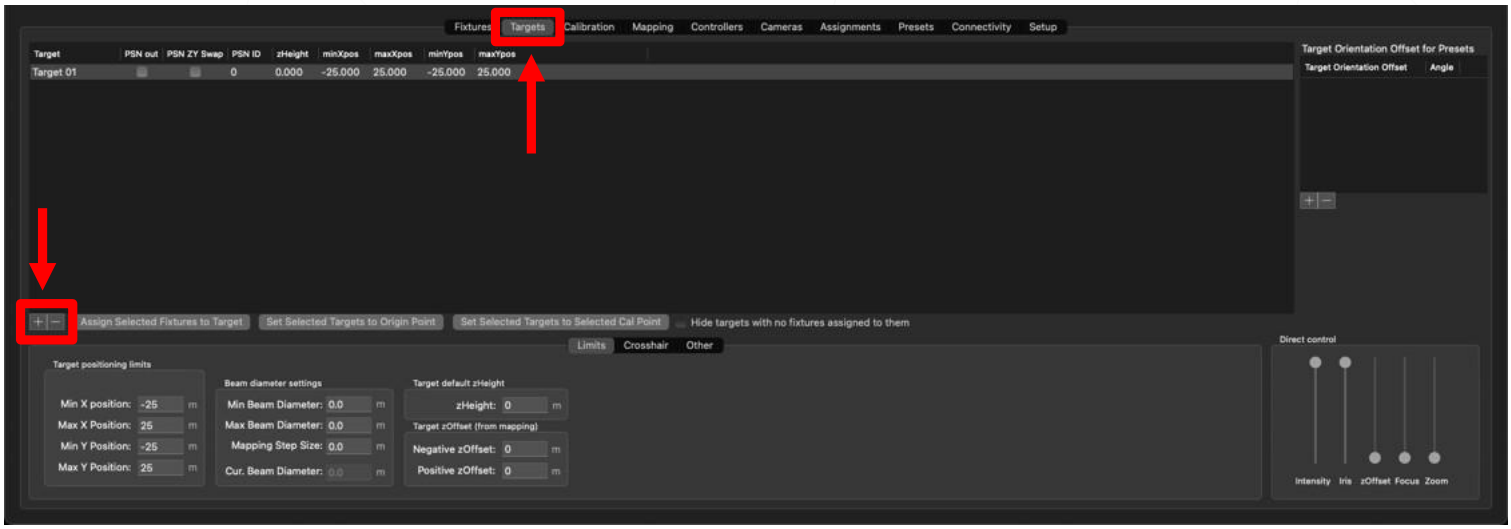


Step 29: Once all positions for heads are done select all the heads in the list and turn on “Highlight”. This will turn on all heads. With all heads still selected also select target 1 and click “Assign Selected Fixtures”. This will cause all of the Follow-Me heads to point towards the target that unless moved will be DSC, they will not be exact yet but should all be facing towards the right direction.

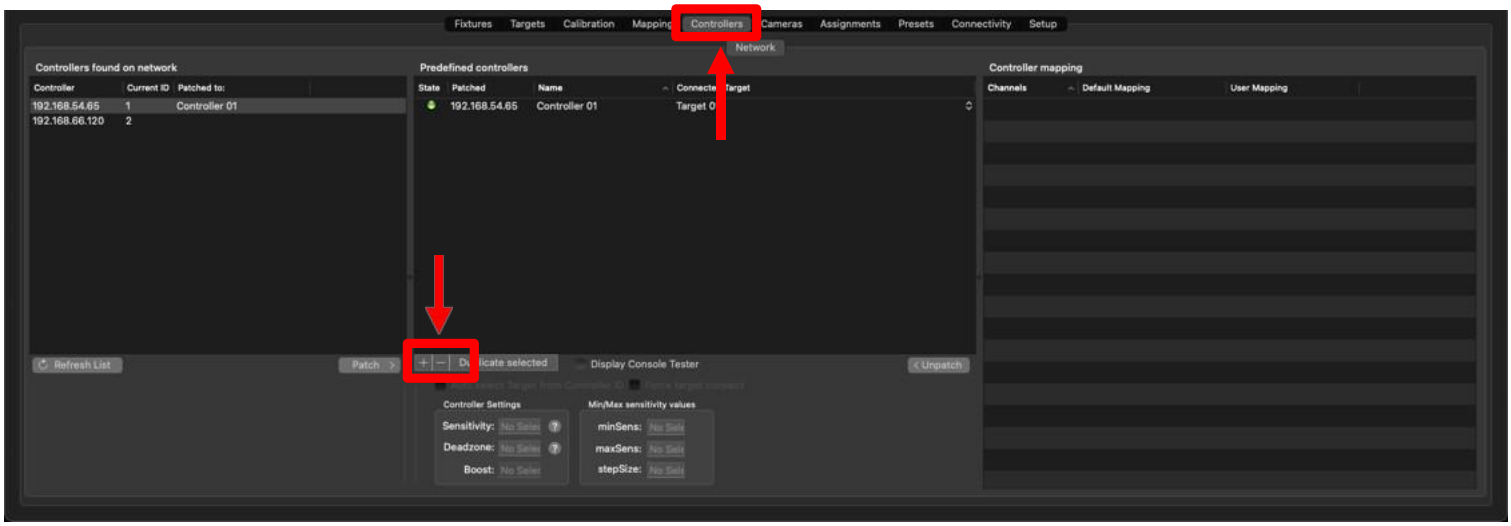


If heads are not pointing in the correct place please recheck all positions and rotations are correct or whether a Pan/Tilt invert is required. An invert can be applied by selecting the relevant tick box per fixture in the “Fixtures” tab.

Target Setup

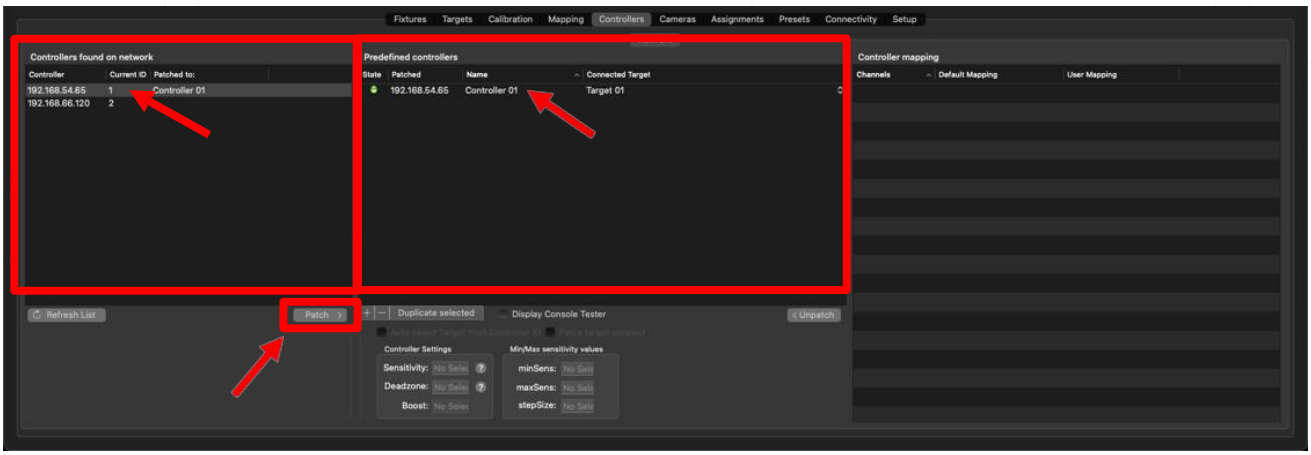


Step 30: Go to the “Targets” tab and then click the “+” icon to add as many targets as required, one is added by default.

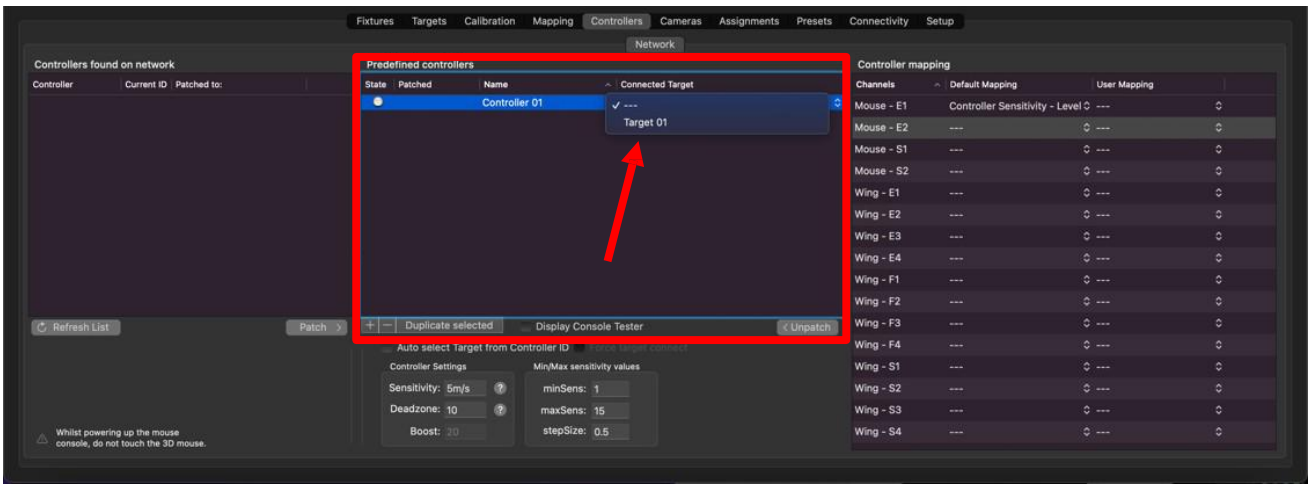


Step 31: Go to the “Controllers” tab and then click the “+” icon in “Predefined Controllers” to add as many controllers as required.

Step 32: On the 3D Mouse Units use the encoder labelled “ID” to set an individual number or letter to each controller, this allows you to easily identify each controller in Follow-Me.



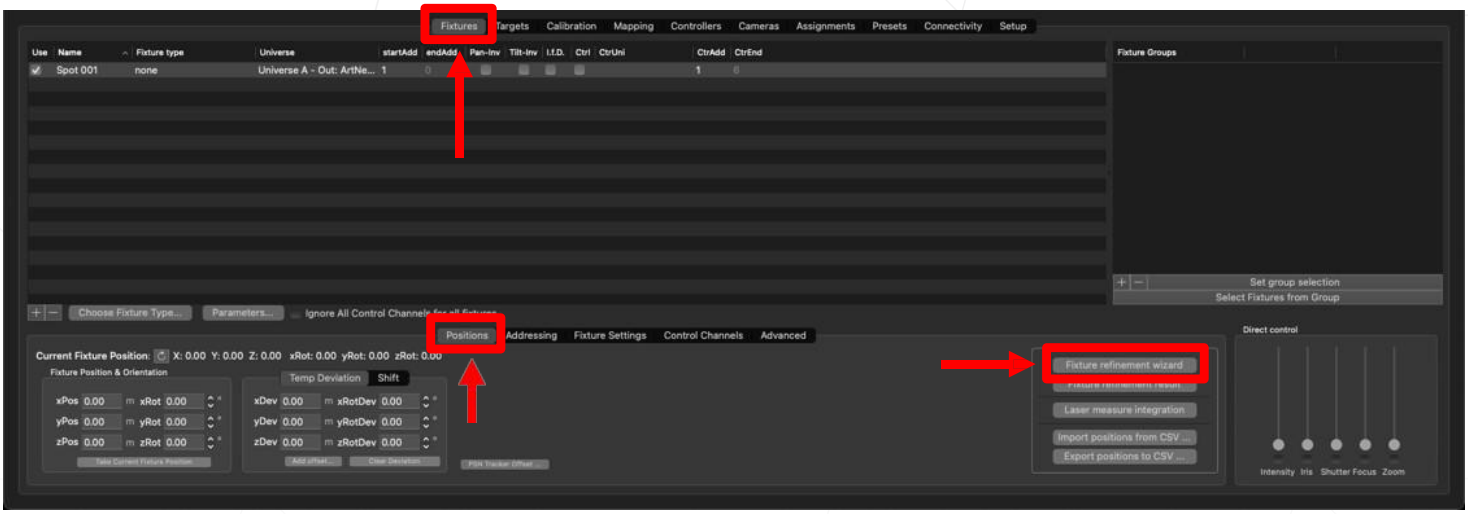
Step 33: Next select a controller from “Controllers Found on Network” and then select a controller from “Predefined Controllers” and press patch to bind them together.



Step 34: For each “Predefined controller” use the “Connected Target” dropdown to select a Target.

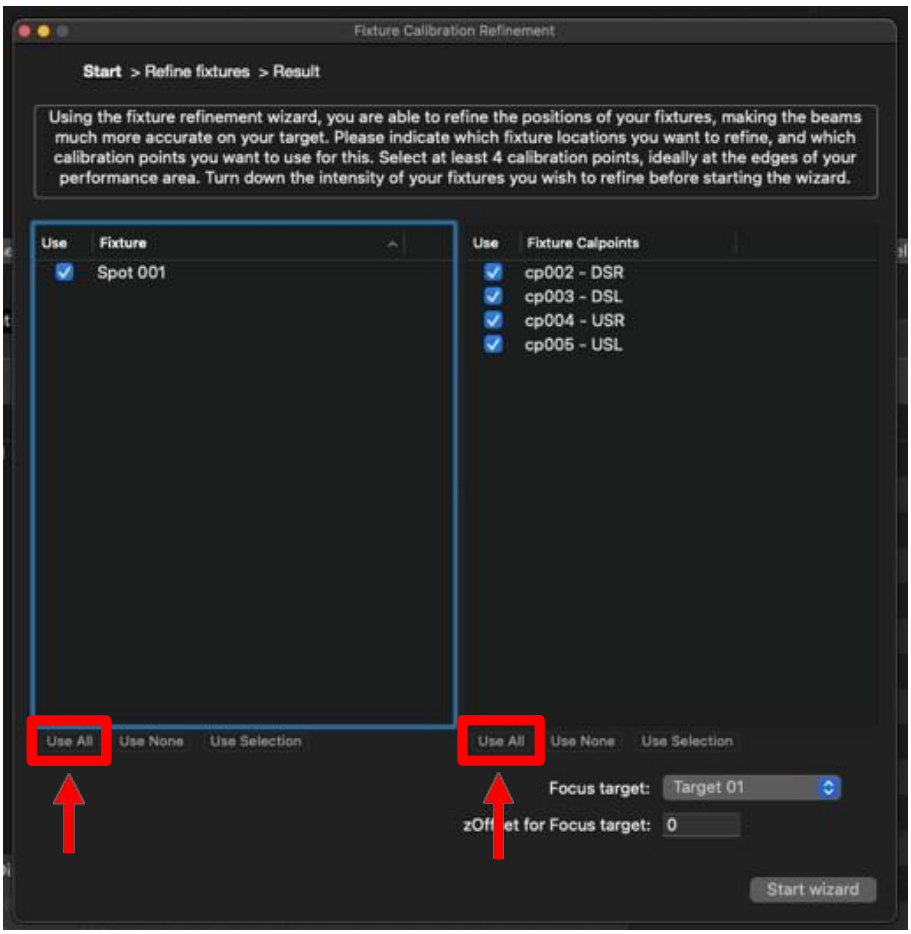
Step 35: Now repeat the last 2 steps for all controllers.

Fixture Refinement



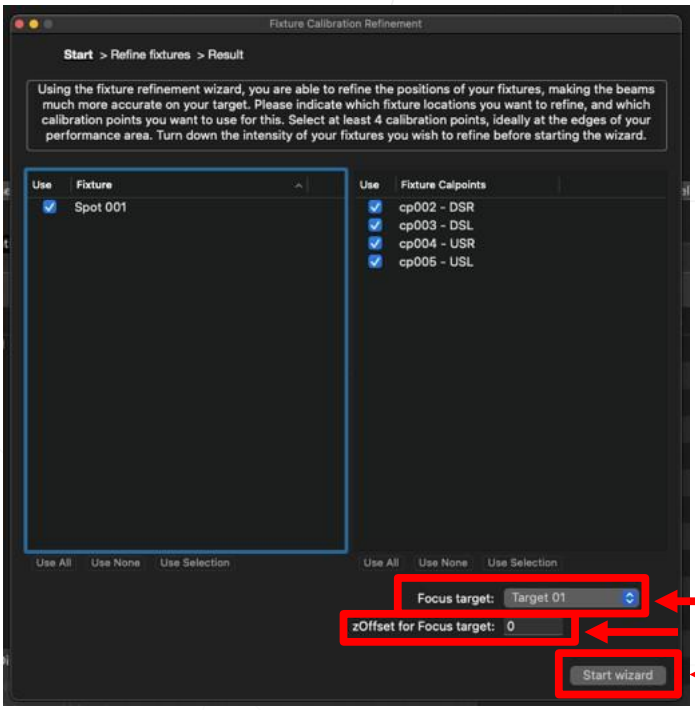
Step 36: Go to the “Fixtures” tab and then the “Positions” sub tab.

Step 37: Click on the “Fixture Refinement Wizard” to open the window.



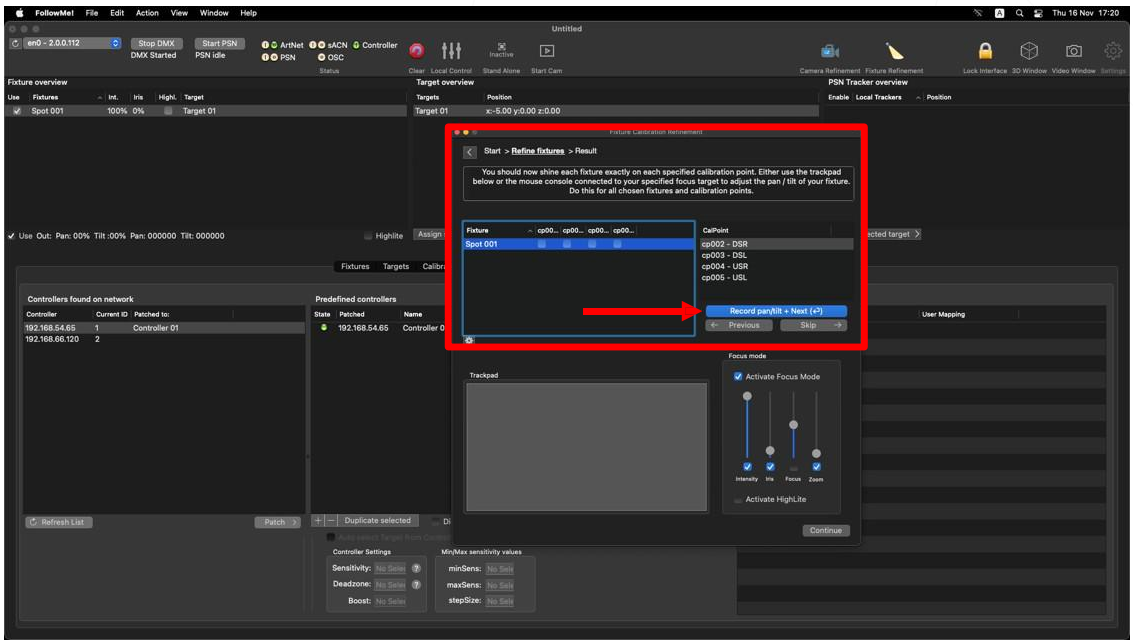
Step 38; The window will show 2 lists, one being the heads added into Follow-Me, the other being the calibration points that can be used. For initial setup select “Use All” for both lists. If a certain fixture or calibration point needs further refinement then individual points or fixtures selected.

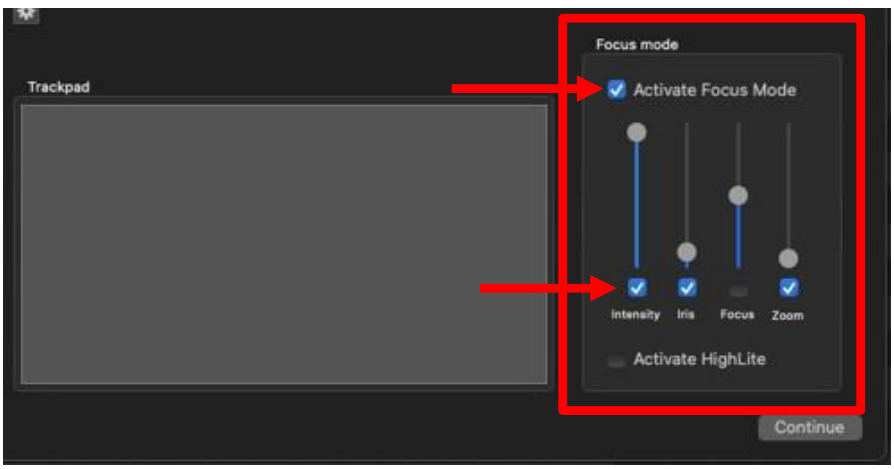
Follow-Me Quick Start Guide



Step 39: Select the target you wish to use for refinement, this allows you to use on of the 3D mouse units to line up fixtures. Once selected set “zOffset” to 0 and press “Start”.

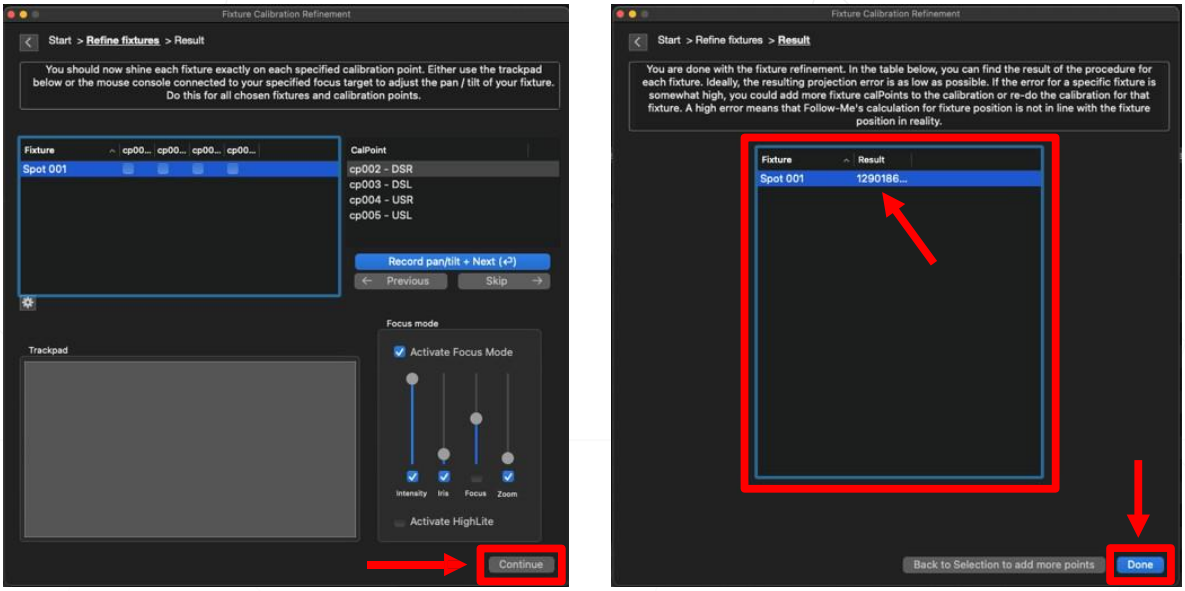
Step 40: Fixture will then move to shine at first point (DSR), use 3D mouse assigned to the target selected in the previous step to line up the fixture more accurately with the calibration point marked originally, once done press enter and repeat for all fixtures.



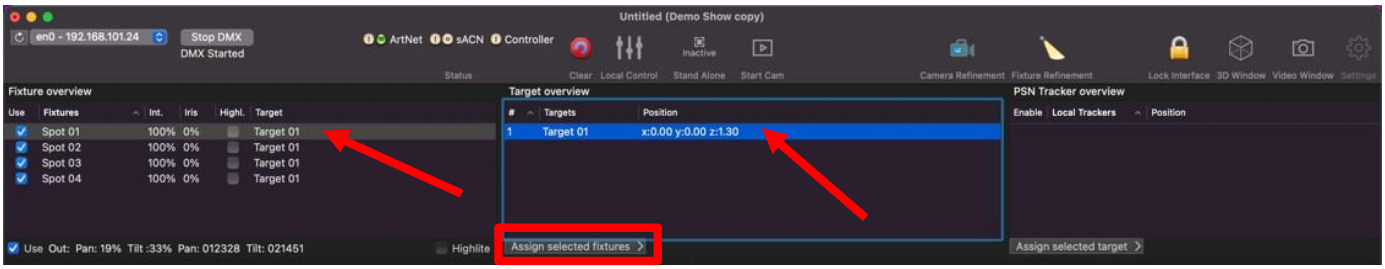


Focus mode options may assist in the refinement procedure by allowing you to change zoom, focus, iris and intensity. To activate focus mode select the tick box under the function.

Step 41: Once one position has been completed for all selected fixtures it will automatically move to the next position and start again until all points and fixtures have been calibrated across all positions.

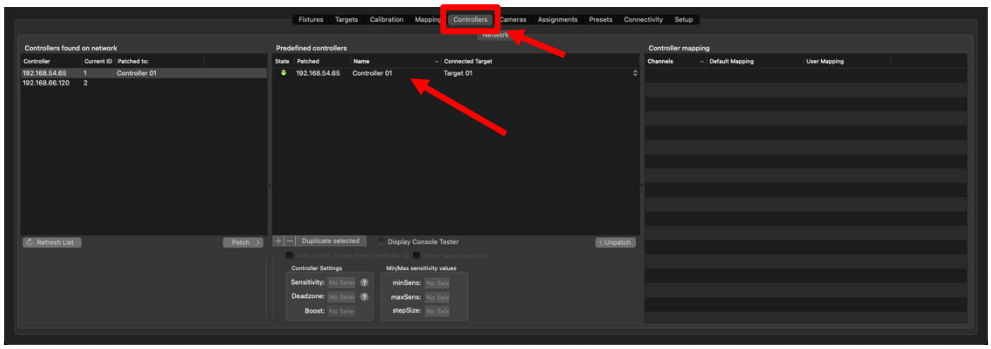


Step 42: After all are completed, press continue. This then shows the results for each fixture, if there is a higher level of error this means there is probably a measurement, position or rotation wrong in the software, go through and double check all fixtures. Once complete press done.



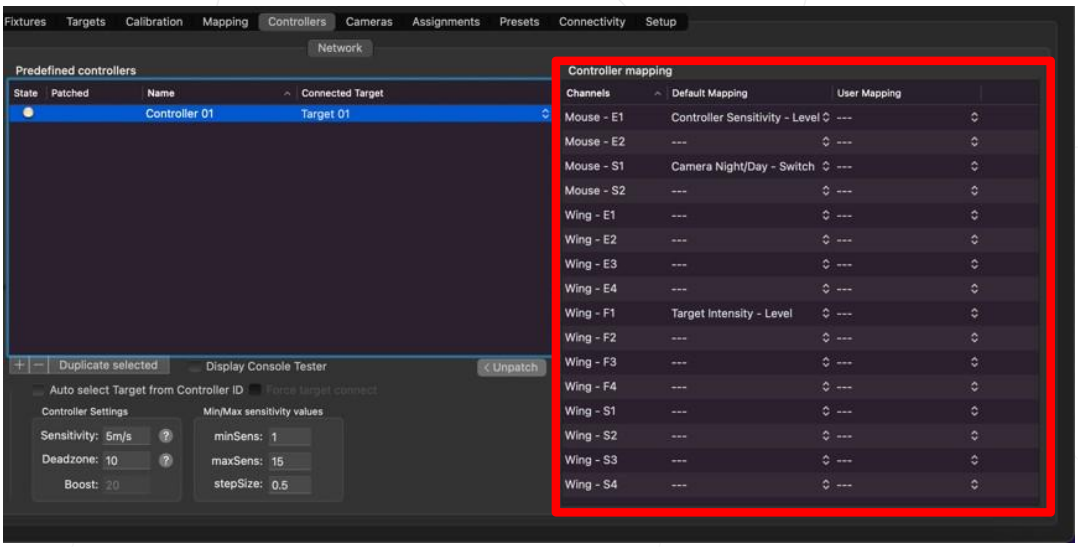
Step 43: When assigning fixtures to targets, select the fixtures you want to add either in the fixture overview window or the fixtures tab, then select the target in the target overview and click “assign Selected Fixtures”.

Setting Up Controllers

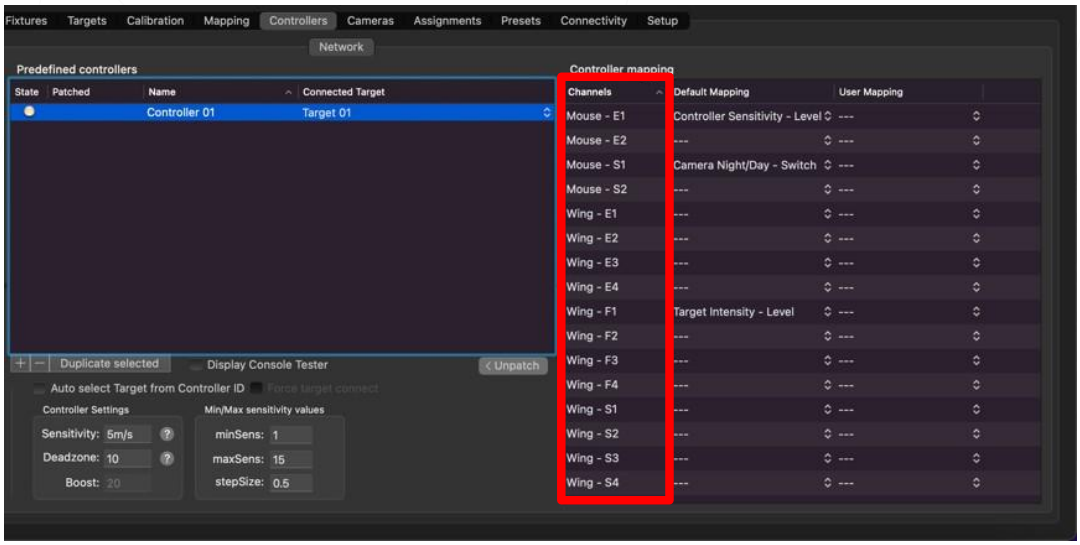


Step 44: Go to the “Controllers” tab.

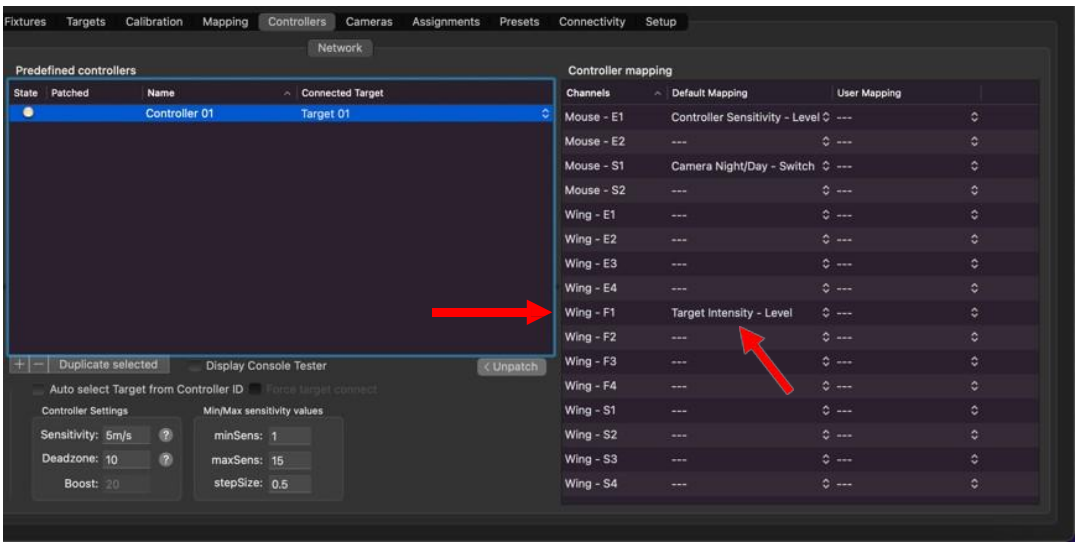
Step 45: Select the predefined controller you want to edit from the list.

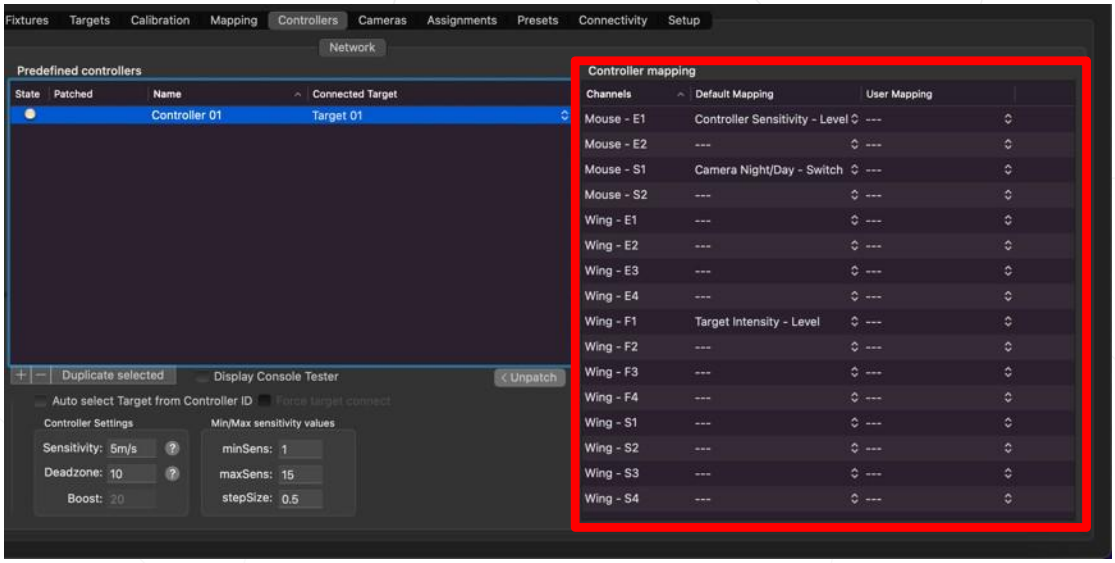


Step 46: Under “Controller Mapping” you can edit and assign functions to all of the buttons, encoders and faders on both the mouse and fader wing.



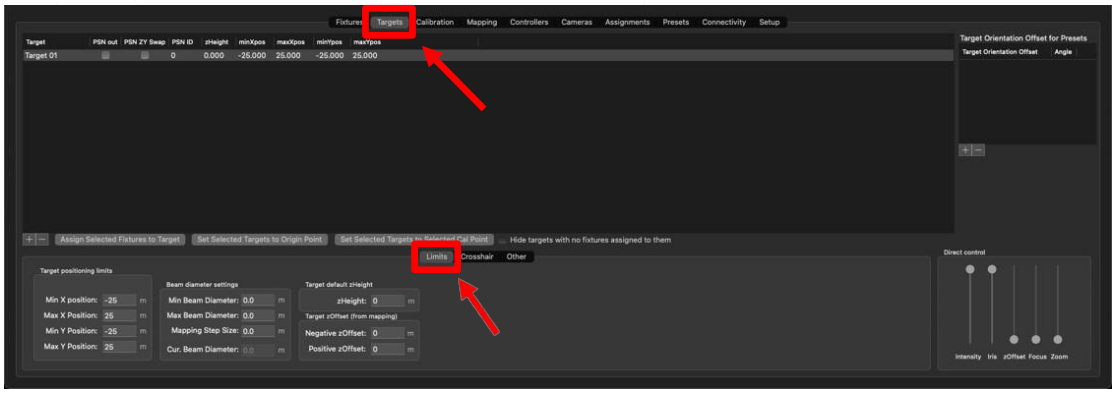
Step 47: Within the “Channels” column anything labelled as “E” is referencing an encoder, anything labelled as “F” is referencing a fader and anything labelled as “S” is referencing a Button.



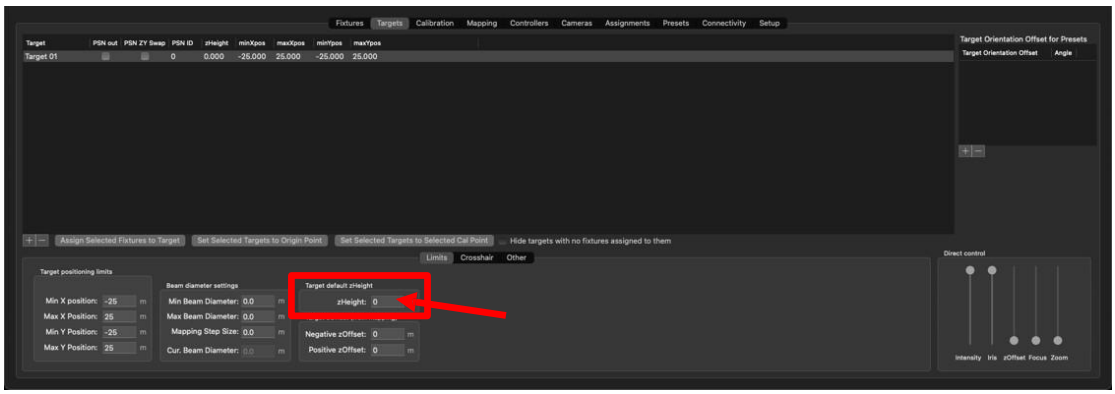


By default “E1 (mouse encoder 1)” on the mouse console controls the sensitivity of the 3D mouse, this allows each of your operators to select their own sensitivity. This control can be replaced or moved in this window.

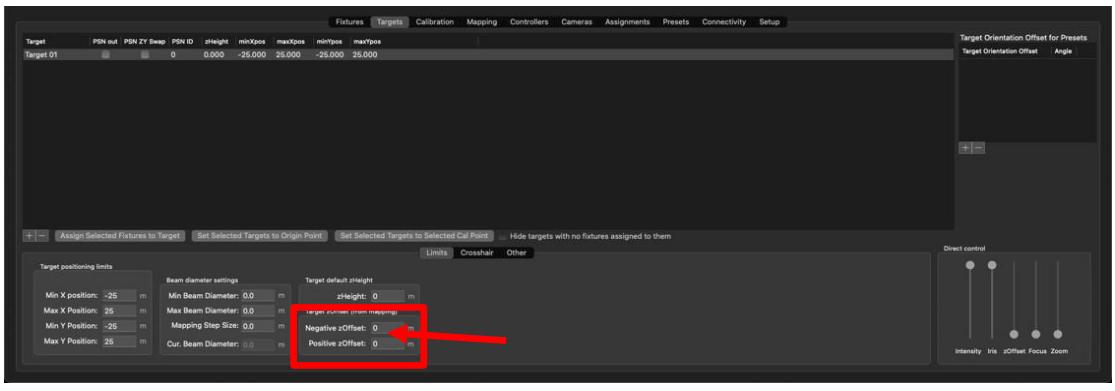
Z OffSet



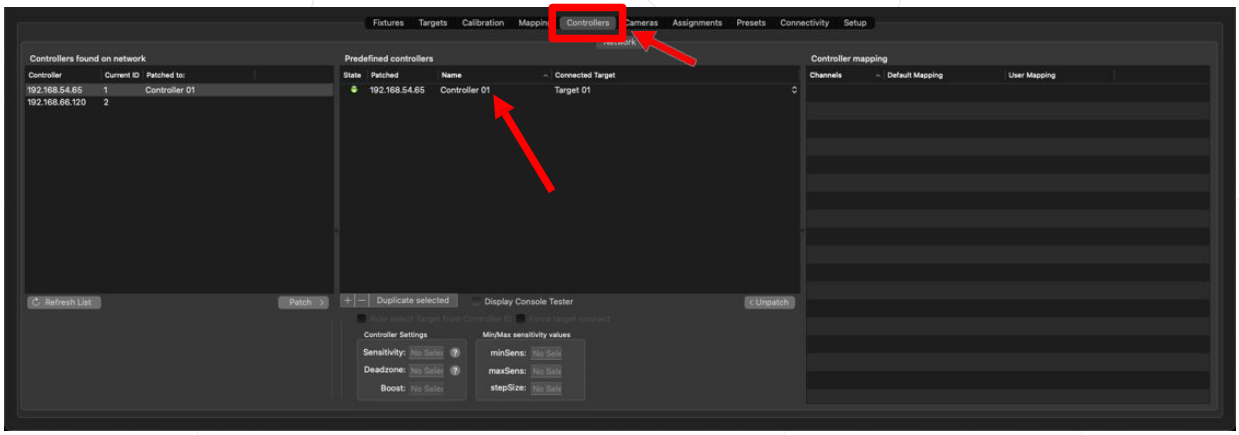
Step 49: Go to the “Targets” tab then the “Limits” sub tab.



Step 50: Select a target and set its “Default zHeight” to 1.3.

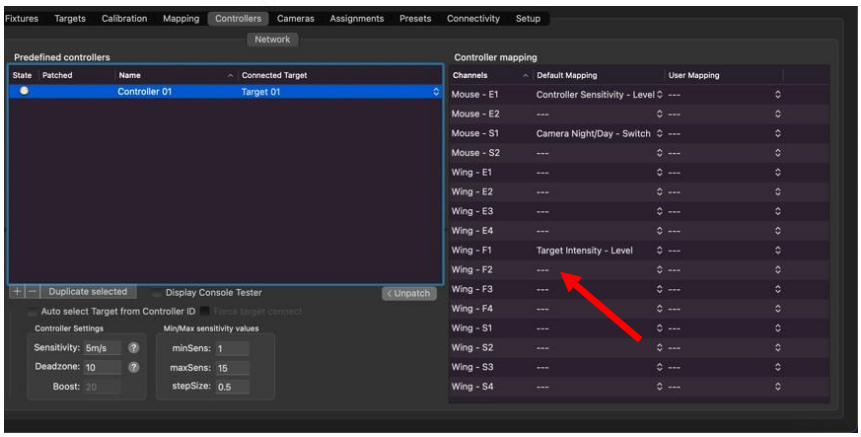


Step 51: Set the “Target zOffset from mapping - negative zOffset” to -1.3.



Step 52: Go to the “Controllers” tab.

Step 53: Select the predefined controller you want to edit from the list.



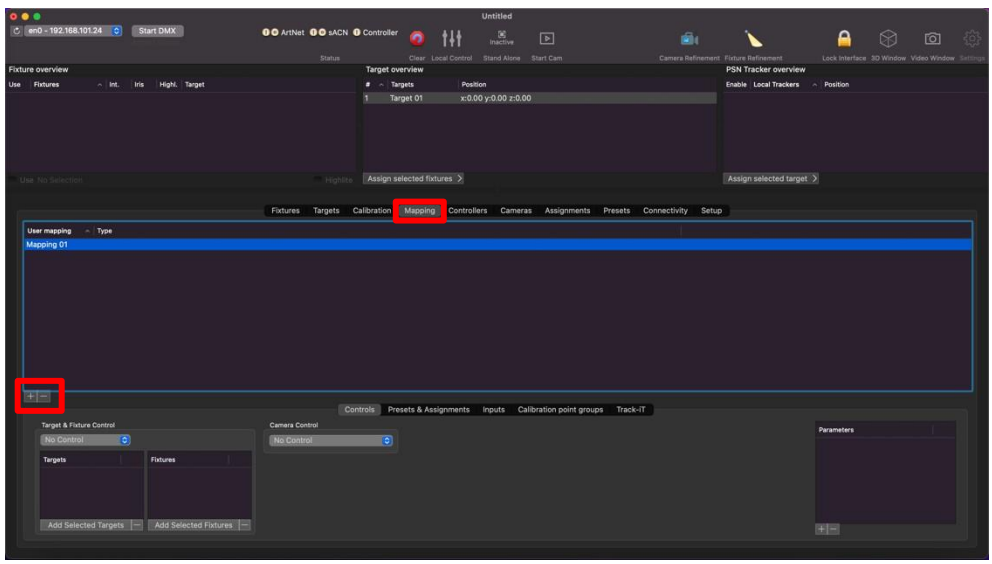
Step 54: Double click under “Default mapping” and select “Target zOffset - level” from the list of dropdown options, This fader now controls the zOffset level of that target.

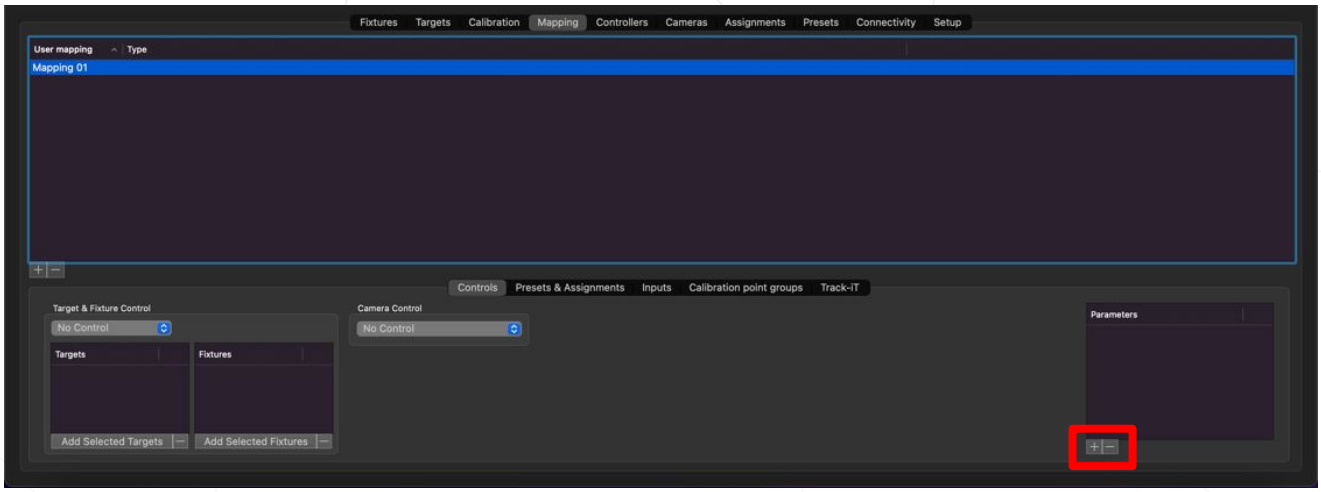
User Mapping

Step 55: Go to the “Mapping” tab.

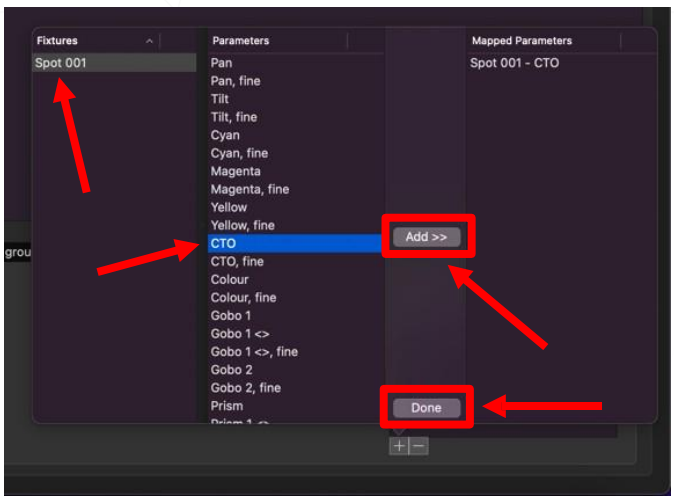
Step 56: Use the “+” icon to add new mapping, you can double click on the mapping to rename it as required.

Step 57: Select the mapping you just added.





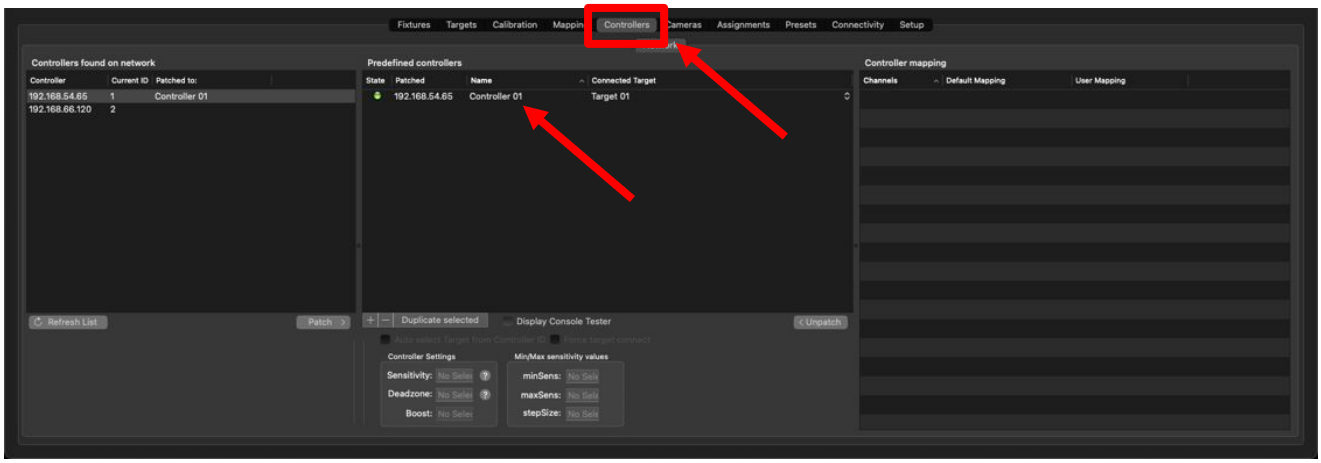
Step 58: Use the "+" icon in the bottom right labelled "Parameters" to tell Follow-Me what to control with this mapping,



Step 59: A dialogue will appear showing you a list of fixtures added earlier, select a fixture from the list then select the parameters you wish to map and click "Add>>". Repeat for all fixtures and parameters that need to be in this mapping.

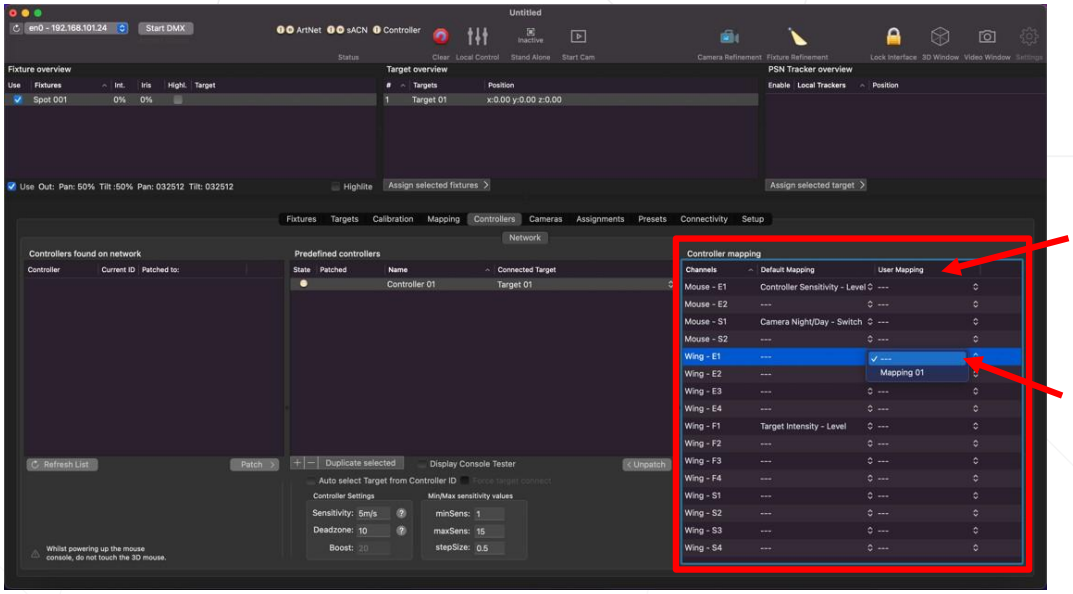
For example, adding the CTO channel of heads 1 and 2 to a mapping will allow the operator to control this function for those heads through their controller.

When complete press "Done".



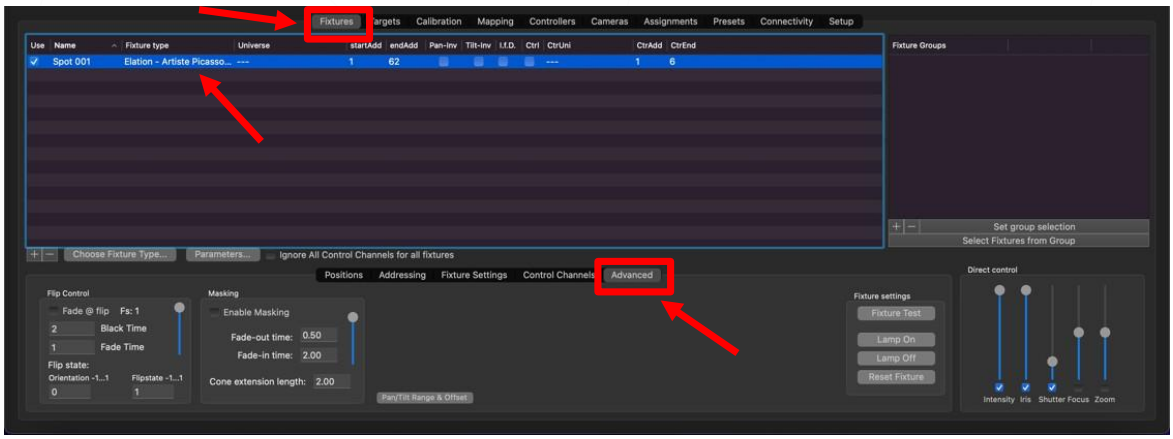
Step 60: Then go to the "Controllers" tab.

Step 61: Select the predefined controller from the list that you want to add the mapping to.



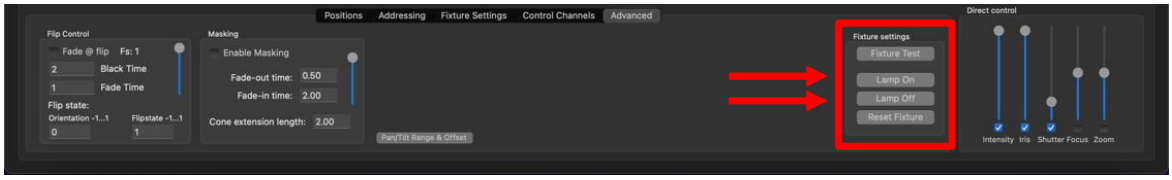
Step 61 (cont.): Select the control (example Wing E2) you wish to use, double click under user mapping on the relevant row and select your mapping form the list.

Lamp On/Off Fixtures

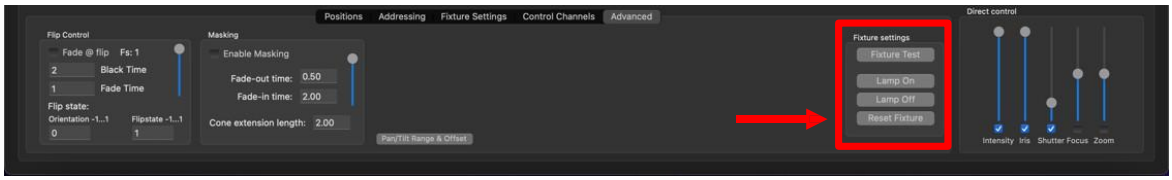


Step 62: Go to the “Fixtures” tab and the “advanced”.

Step 63: Select the relevant fixtures from the list you would like to control.



Step 64: Click either the “Lamp On” or “Lamp Off” buttons from the advanced menu.



Step 65: If required a full fixture reset can also be done from here.

Follow-Me Calibration Guide

USR

X: -<A>

Y: <C>

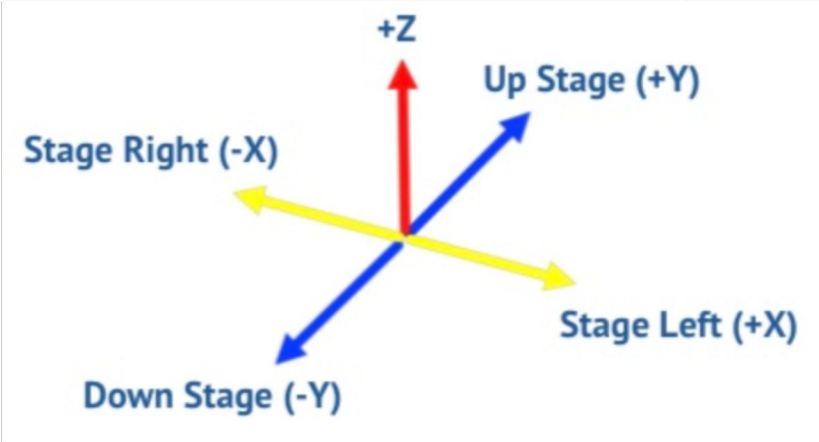
Z: 0.00

USL

X: <B>

Y: <C>

Z: 0.00



DSR

Y: 0.00

Z: 0.00

^C^

X: -<A>

Follow-Me Calibration Guide

DSC

X: 0.00

Y: 0.00

Z: 0.00

DSL

X: <B>

Y: 0.00

Z: 0.00

<A>

<B>

Follow-Me Fixture Positions

Head no:	Head Type:	Pos X (m):	Pos Y (m):	Pos Z (m):	Rot X (°):	Rot Y (°):	Rot Z (°):

Follow-Me Axis Cheat Sheet