Contents
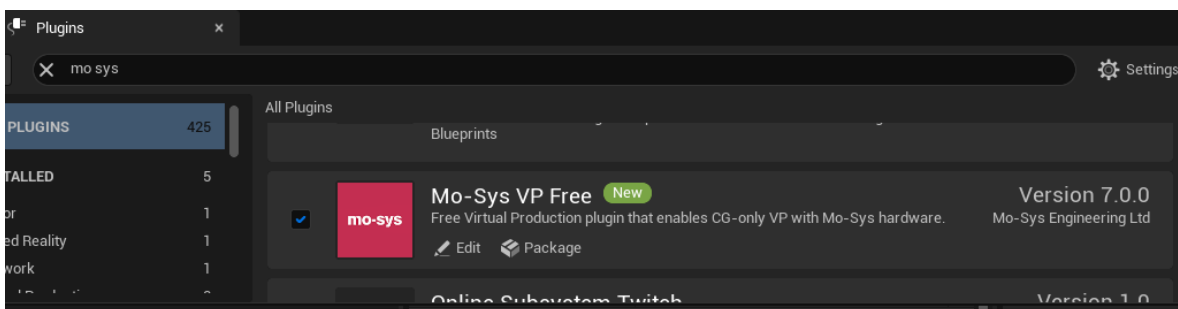
Getting Started

Download and enable the plugin

- Open the MarketPlace in the Epic Games Launcher, then search for "Mo-Sys VP Free" plugin. Once found, click Add to Cart then install.
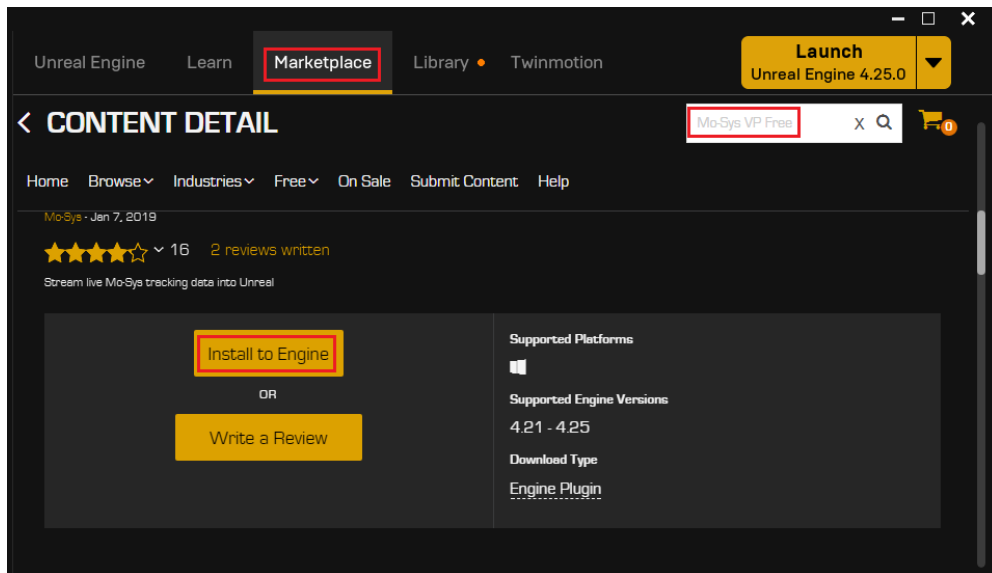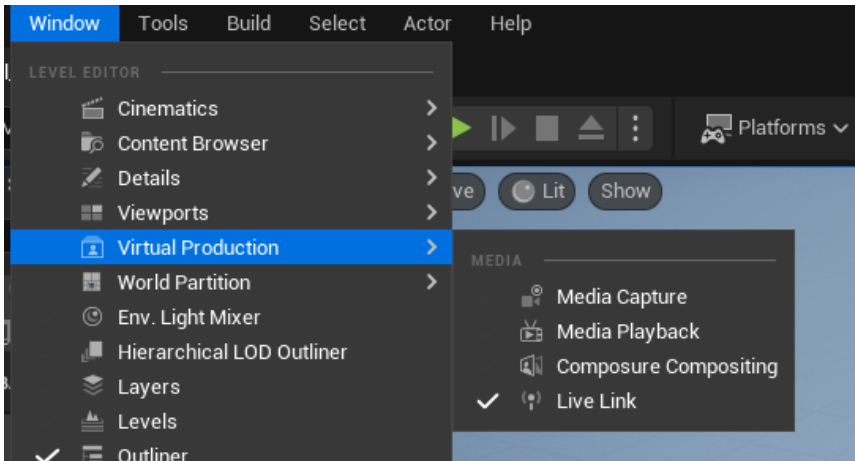

- In order to enable the plugin in your project, select Edit > Plugins. Tick "Enabled" of Mo-Sys VP Free plugin, and then click on Restart Now.
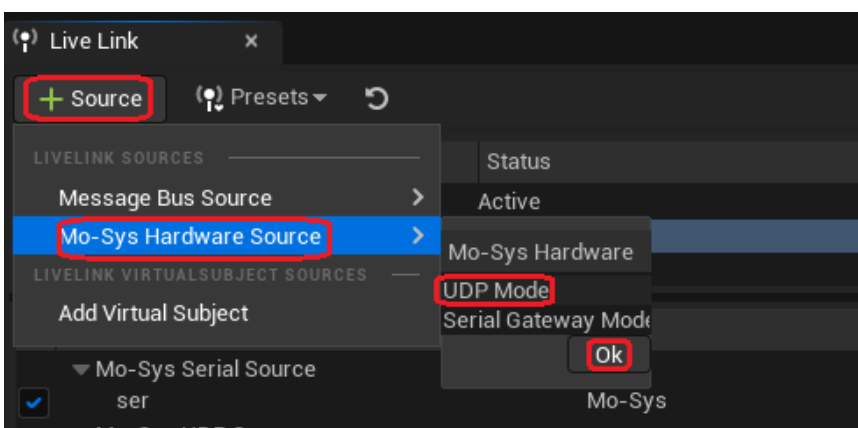
Setting up Unreal project for Tracking

Add a source for your hardware

▪ In Unreal Engine, open the Live Link window.

▪ To add a source, for example "Mo-Sys UDP Source", click on + Source > Mo-Sys Hardware > Source > UDP Mode > Click Ok
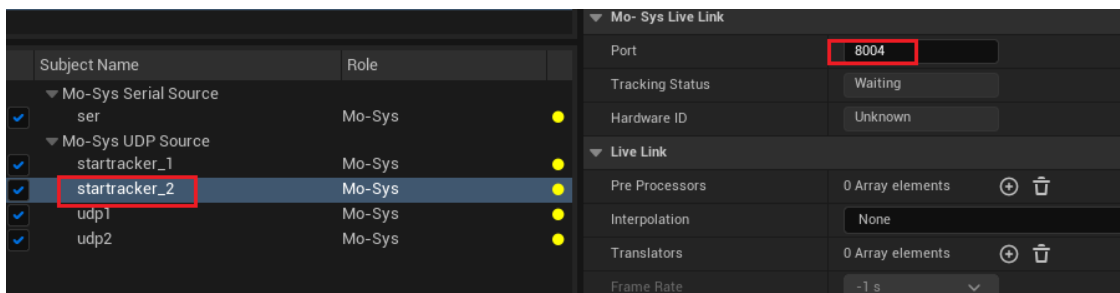
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CAMERA MOTION EXPERTS

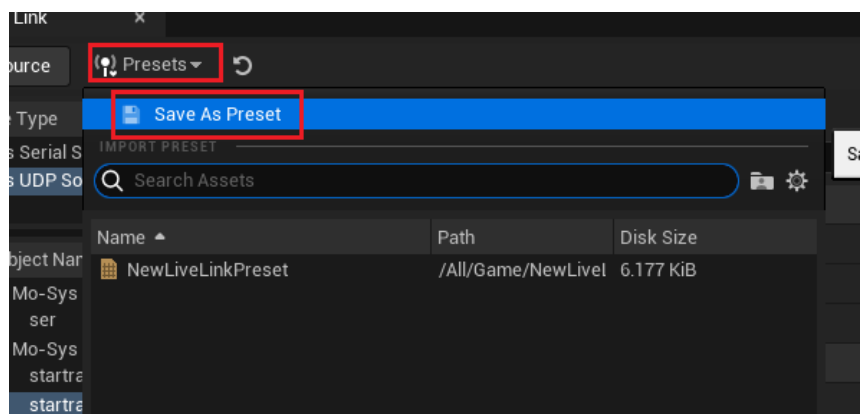# Setting up Unreal project for Tracking

Add Subject Name

- Click on added source e.g. "Mo-Sys UDP Source", edit the "Mo-sys Live Link settings", select StarTracker, edit the subject name e.g. "StarTracker_1", then click "Add New Subject".
- If all previous steps were followed, a new subject should appear (No need to change the default IP):
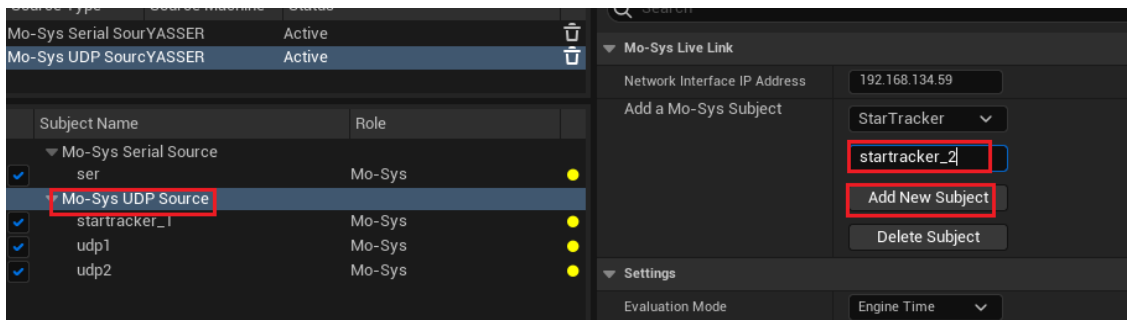
- Click on the new subject e.g "StarTracker_1", edit its port number, if you are receiving data, the colour of the subject status should turn green.


- Live Link subjects are not remembered after UE restart. To save the MoSys Live Link setup, select Presets dropdown and save it.

  The saved preset can be also loaded from here.

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Setting up Unreal project for Tracking

Delete Subject Name

- You can delete all the subject names, by clicking on the delete icon.
- You can also delete the subject names individually, by selecting the source e.g. "Mo-Sys UDP Source", entering the subject name e.g. "StarTracker", then clicking on the "Delete Subject" button.
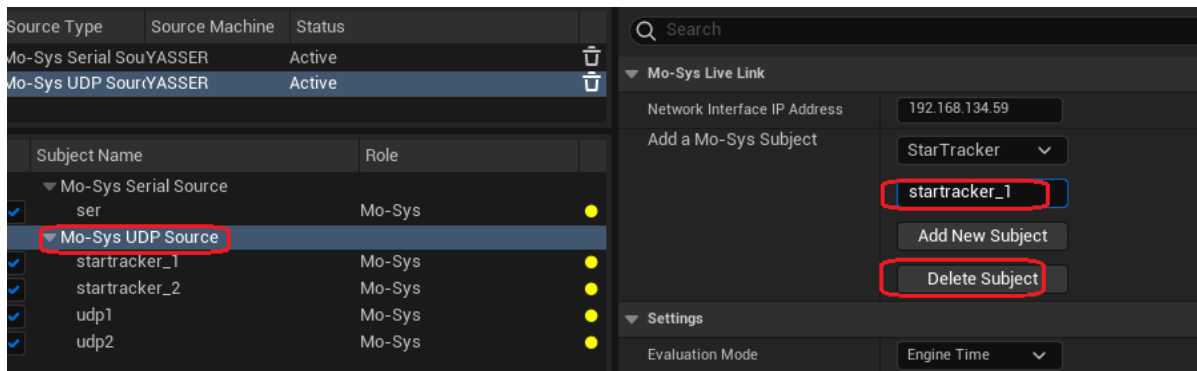
Setting up Unreal project for Tracking

Connect to an Actor in the Scene

- Drag and drop the actor, for example a Camera from the Modes panel.
- Select it in the scene or in the world outliner.
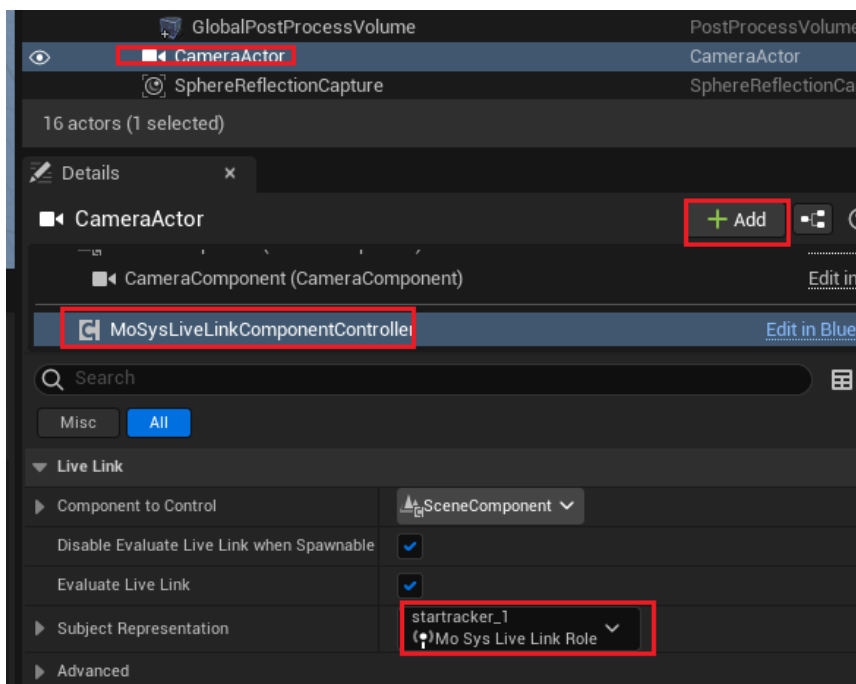

- Click Add Component
- Search for the MoSysLiveLink controller component and click on it.
- It will appear below the CameraActor instance.
- Click on the "MoSysLiveLinkComponentController", select the subject representation as the newly added subject. E.g "StarTracker_1"
- Once the previous steps are completed, you should see the actor moving **(If you are receiving UDP data)**.

Setting up Unreal project for Tracking

## Changing the origin of a tracked actor

- This will enable the user to change the position of an actor in the scene while the actor is receiving tracking data.
- Click on the actor's "Mo-Sys Live link" component, change the component to control the component of the actor (e.g CameraComponent). For *nDisplay* use leave "SceneComponent".
- Now you can change the actor's position in the scene.

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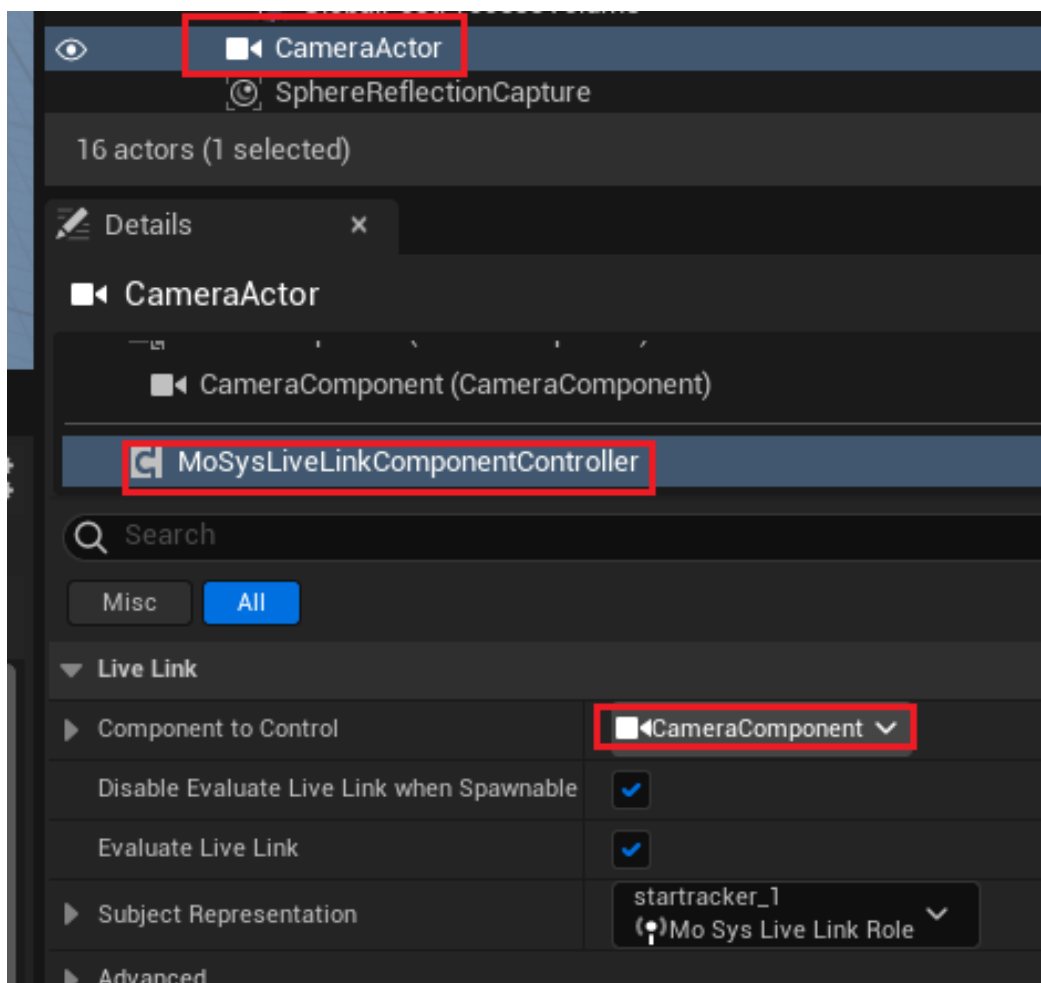
Usage

Tracking interpolation

- The tracking interpolation will enhance the tracking smoothness, especially for the serial sources.
- It can be enabled by selecting "Mo Sys Interpolation" in the LiveLink menu of a subject name.
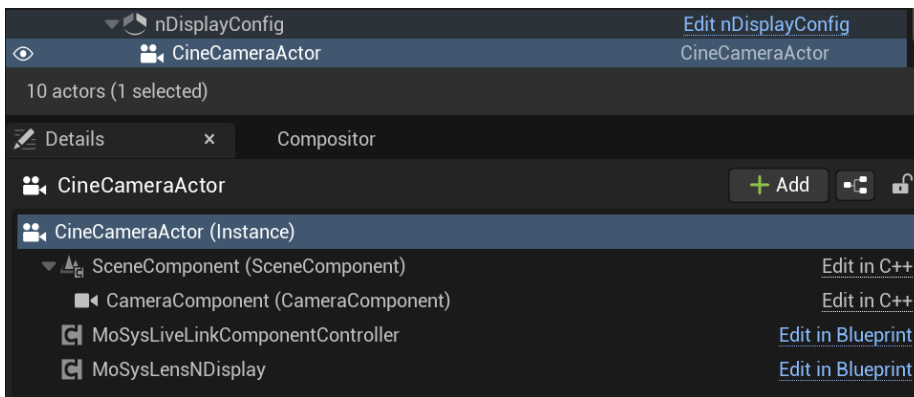
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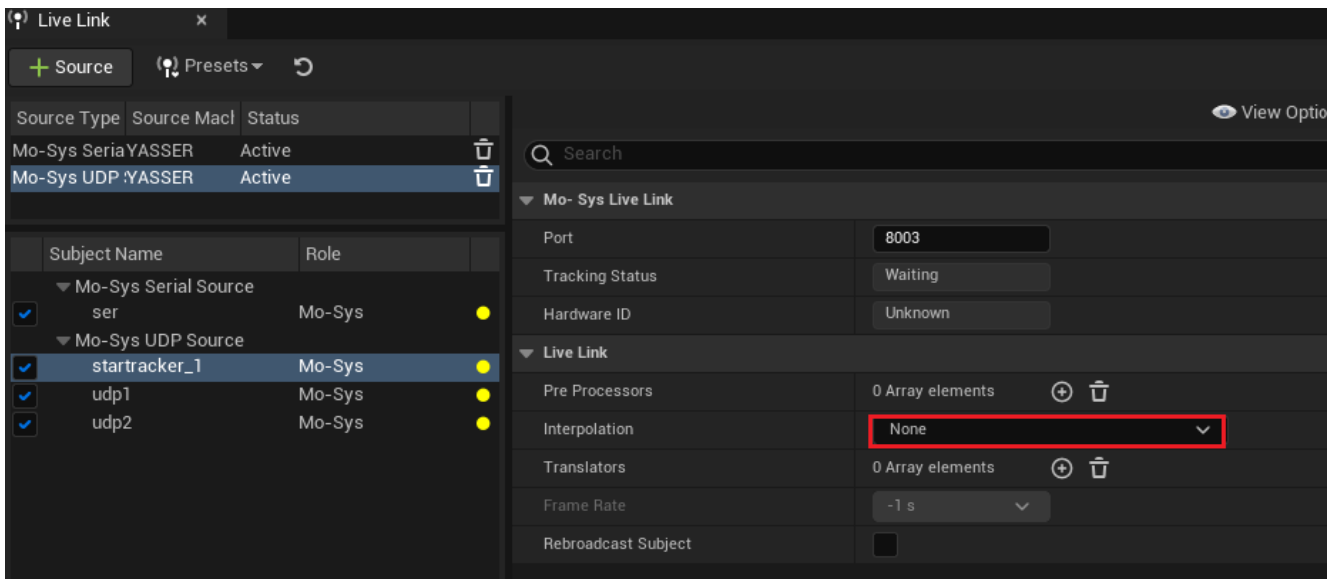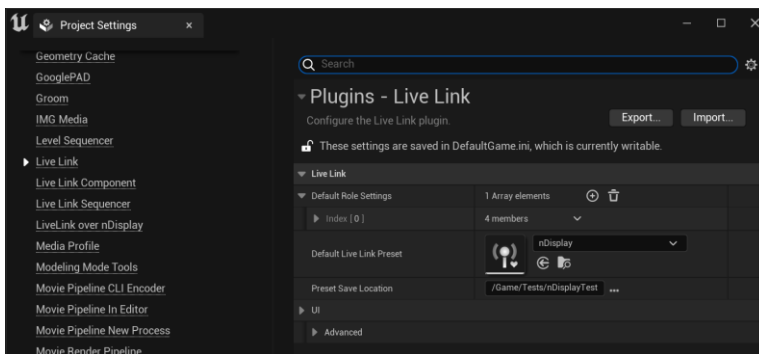
MoSysCameraNDisplay

Mo-Sys nDisplay integration (in-camera VFX)

The camera enables the usage of "In-camera VFX" (LED screen) pipeline using Unreal's official template.

- To setup a project follow the instructions on Unreal Engine nDisplay quick start guide:
https://docs.unrealengine.com/en-US/WorkingWithMedia/InCameraVFX/InCameraVFXQuickStart/index.html

- You can find a sample nDisplay template when starting the engine under "Film, television and Live Events" -> "InCameraVFX"
- Enable MoSys VP Free plugin, set up and save MoSys Live Link preset (pages 1-3)
- Add MoSysLiveLink and MoSysLensNDisplay components to the CineCameraActor

- Specify the livelink preset in Project Settings->LiveLink->DefaultLiveLinkPreset


- Select the LiveLink subject on MoSysLiveLink component

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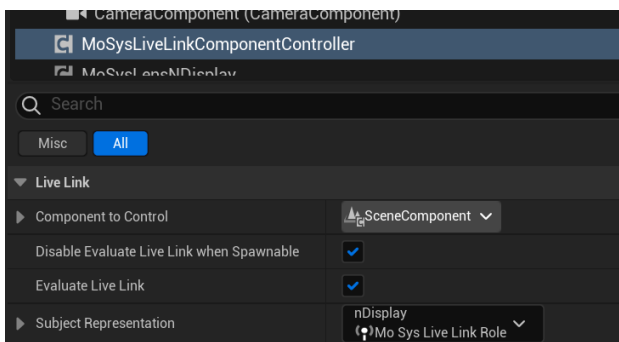
MoSysCameraNDisplay

- MoSysLensNDisplay component brings the following lens parameters: <u>field of view</u> and <u>focus distance.</u>

If the lens file is not available on the StarTracker or the data is not needed for a shoot, you can either remove the component or set the specific parameter to manual, which will give control to CineCameraComponent settings.
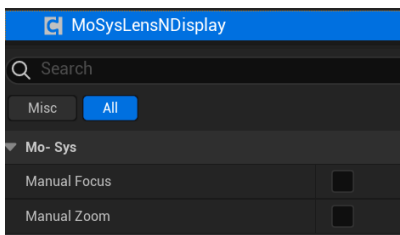

Finally, if editing and running nDisplay on a single PC, change the port (image below) on MoSys Live Link to free up the port for nDisplay Launched application (don't save the preset after the change).
For nDisplay cluster to work it is essential to send tracking to nDisplay master computer! (_img. 2_)
You can optionally designate another StarTracker IP endpoint to send data to editor's port, to see the camera movement there.
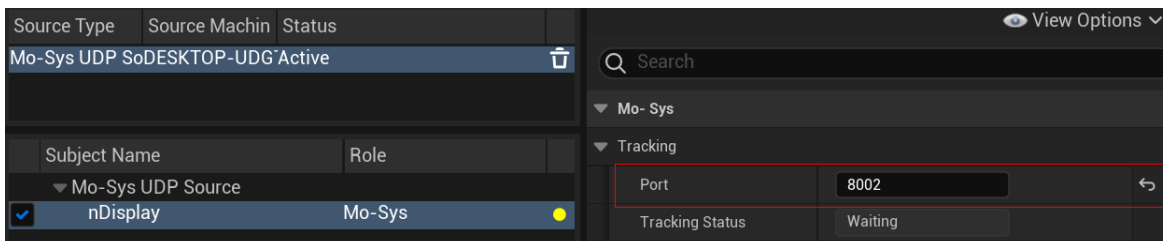
Img. 1 Live Link after changing the port to let the tracking come to the launched game, by default we set the port to be 8001
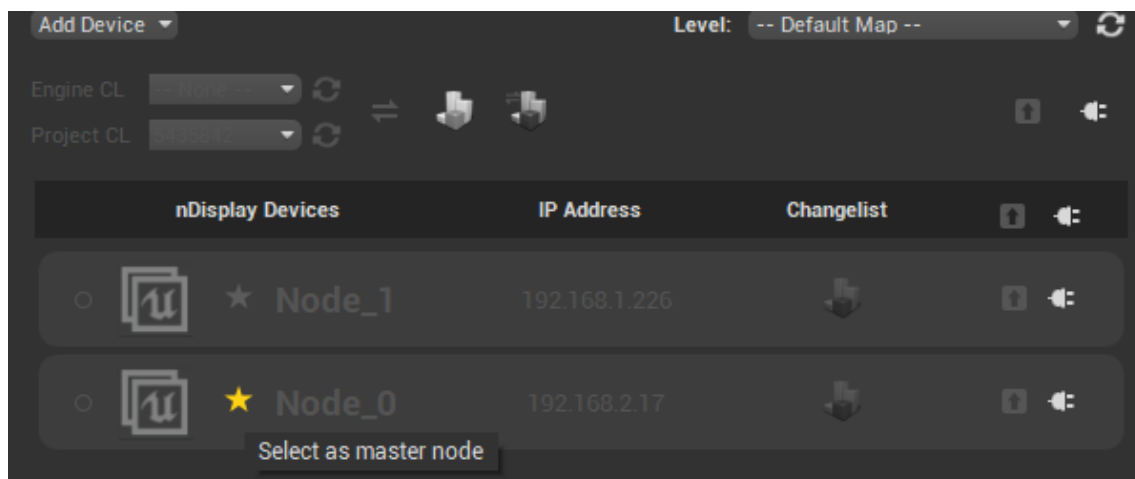
Img. 2 nDisplay master in Switchboard plugin panel

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