

FALCONER

Quick Start Guide: One-to-Multi-Spot

V1



AYRTON
Digital Lighting

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 DISCLAIMER

Errors and omissions for all information given in this quick start guide are possible. All information is subject to change without prior notice.

1. ONE-TO-MULTI-SPOT CONFIGURATION

The One-to-Multi-Spot scenario is when more than one fixture is controlled by the Falconer. This is the method applied when using the Horus fixture as the primary camera fixture.

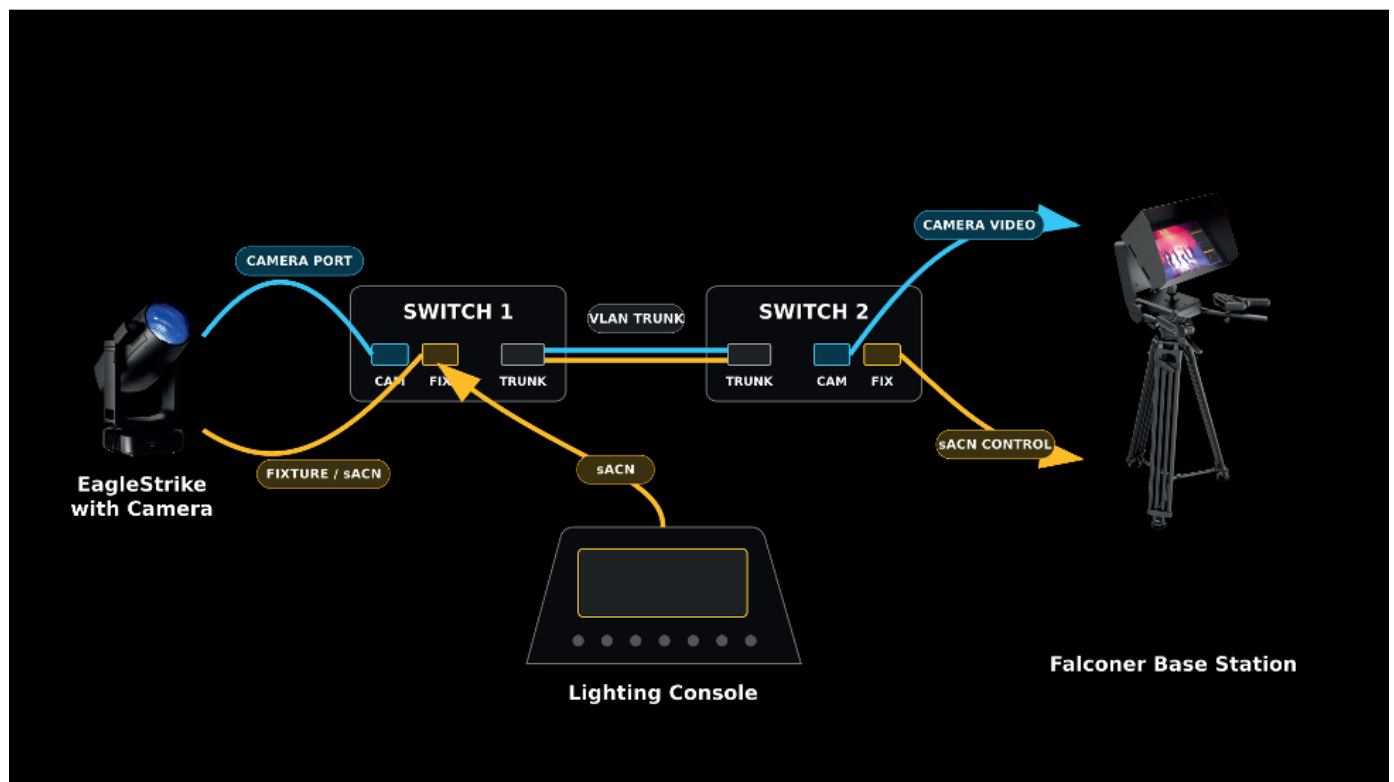
This is the setup for a basic One-to-Multi-Spot configuration:

- Falconer base station
- A Primary Unit: an Ayrton fixture with a mounted camera (e.g. EagleStrike) or the Horus Camera.
- Secondary fixtures: can be any Ayrton fixture or a fixture from any other brand.
- Two network connections: sACN for the fixture, NDI for the camera

CAUTION

When using the Horus unit as the primary camera fixture, the following points should be respected for an accurate calibration and usage:

- In the **Settings Menu**, tick the **Reset and lock crosshair to center**.
- **Zoom Out** should be at its maximum. If zoomed in, the center could shift slightly and might affect the calibration.

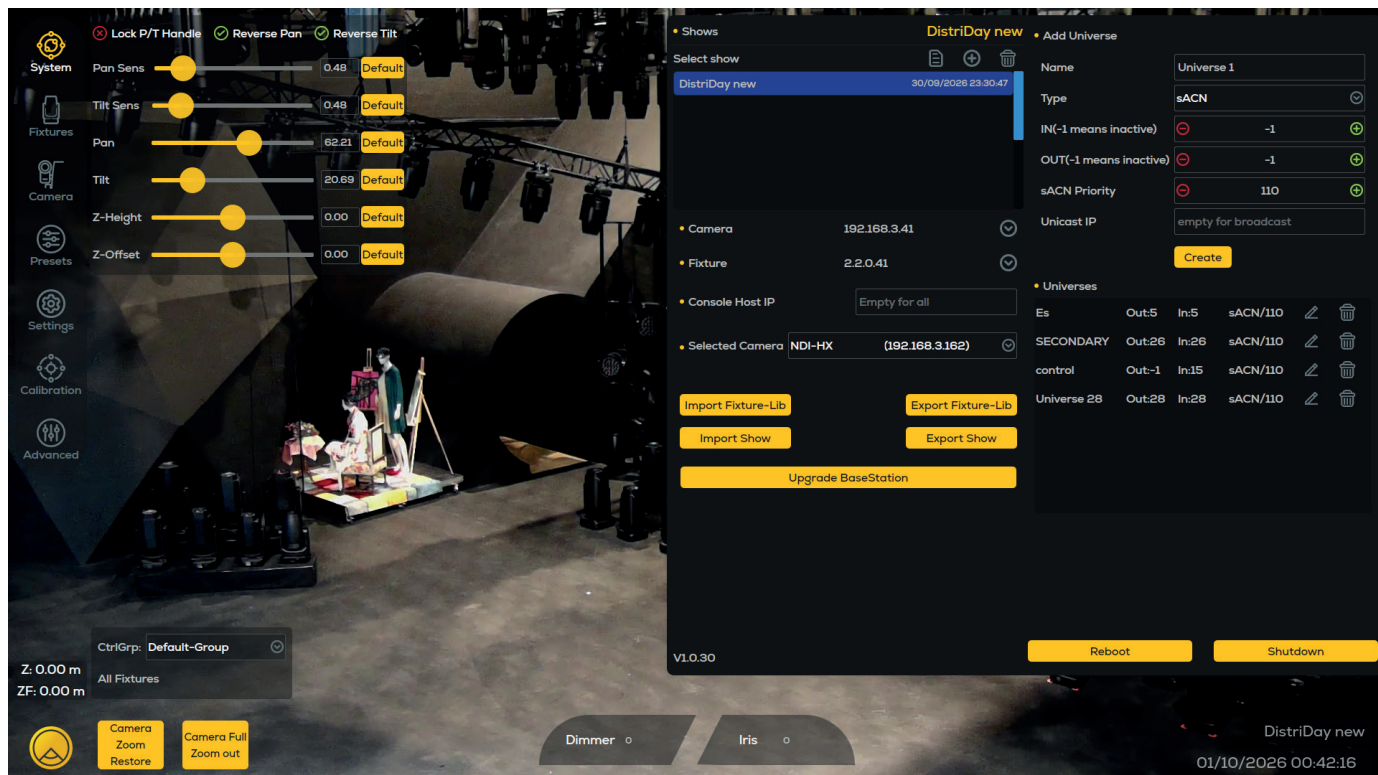


2. SYSTEM SETUP

Once the base station is powered on, the system will boot up and automatically launch the Falconer software. To display the various menus available, click on  on the lower left corner of the screen.

For a One-to-Multi-Spot configuration, the **System**, **Fixtures**, **Camera** and **Calibration** tabs will be used for the setup:

To begin the setup of the show, enter the **System Menu** .



2.1 > CREATING A SHOW

At the top of the left panel in **System** , press  to create a new show.
A pop-up window to label the show will appear.

2.2 > CAMERA & FIXTURE IP

Indicate in the **Camera** and **Fixture** fields the IP address of the active primary fixture (Horus unit, or Ayrton fixture with mounted camera).

By clicking on , you can modify the **IP address**, the **Mask** and the **Gateway** if needed.
Then select the active camera.

2.3 > CREATING A UNIVERSE

Create a universe by naming it, filling in the **In & Out** values, and pressing **Create**.

The newly created universe is added to the list below.

In the One-to-Multi-Spot configuration, several universes can be created.

Creating a unique universe per primary fixture is recommended if several base stations are used at the same time.

The settings of existing universes can be edited by clicking  next to the sACN priority.

3. FIXTURE PATCH & GROUPS

In a One-to-Multi-Spot configuration, we recommend patching the primary fixture first, then the secondary fixtures. The first fixture patched will be recognised as the camera unit, and the icon  will appear next to it in the list of patched fixtures.

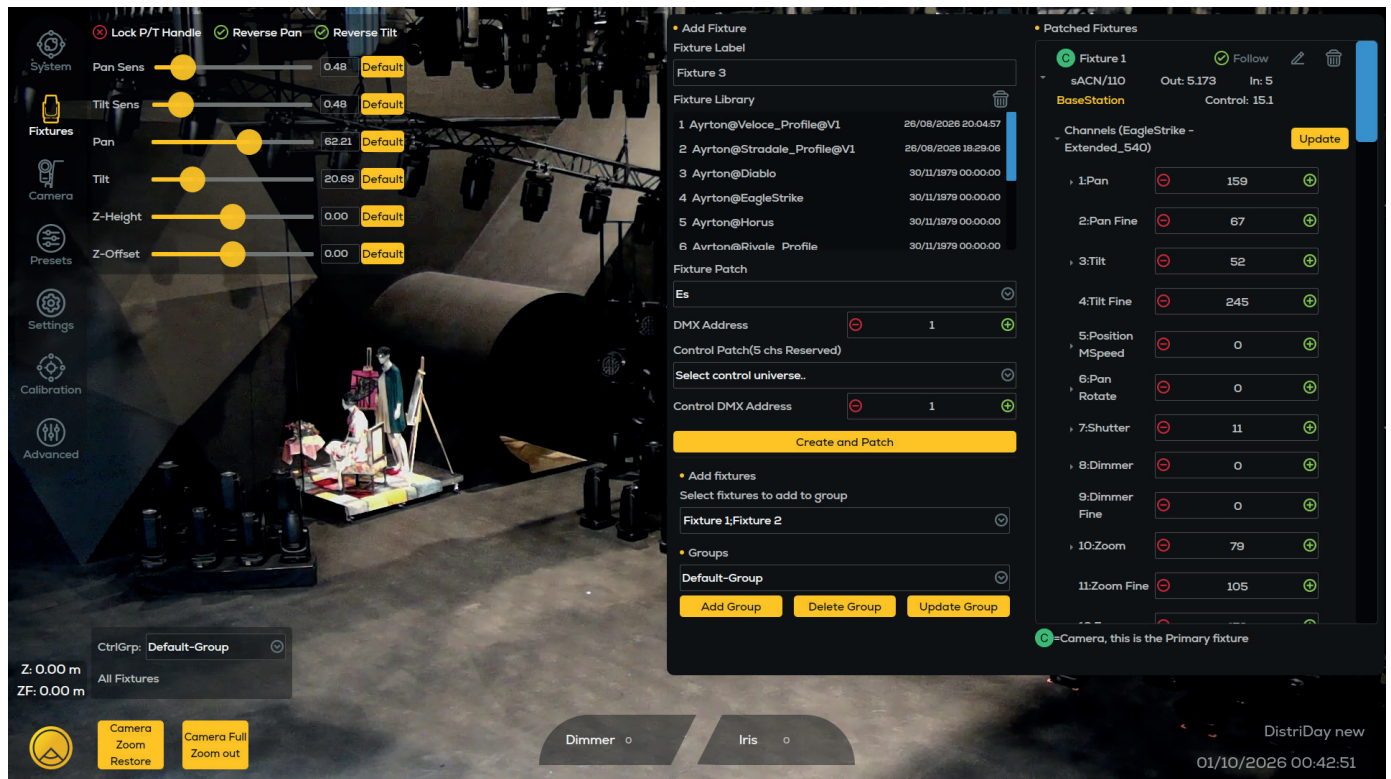
In **Fixtures** , label the fixture and select the fixture's profile from the list in the library (e.g. EagleStrike or Horus as primary fixture). In the **Fixture Patch** section just below, select in which **Universe** the fixture is patched, and specify its **DMX address**. Then, press **Create and Patch**.

Repeat the process to patch secondary fixtures.

An unlimited number of fixtures can be patched but a maximum of 36 active fixtures per base station is recommended.

The newly patched fixtures will be added to the list of **Patched Fixtures** on the right of the tab. The fixture information can be edited by clicking on the pen icon.

Clicking on the dropdown below the patched fixture allows you to modify the default values of each channel.

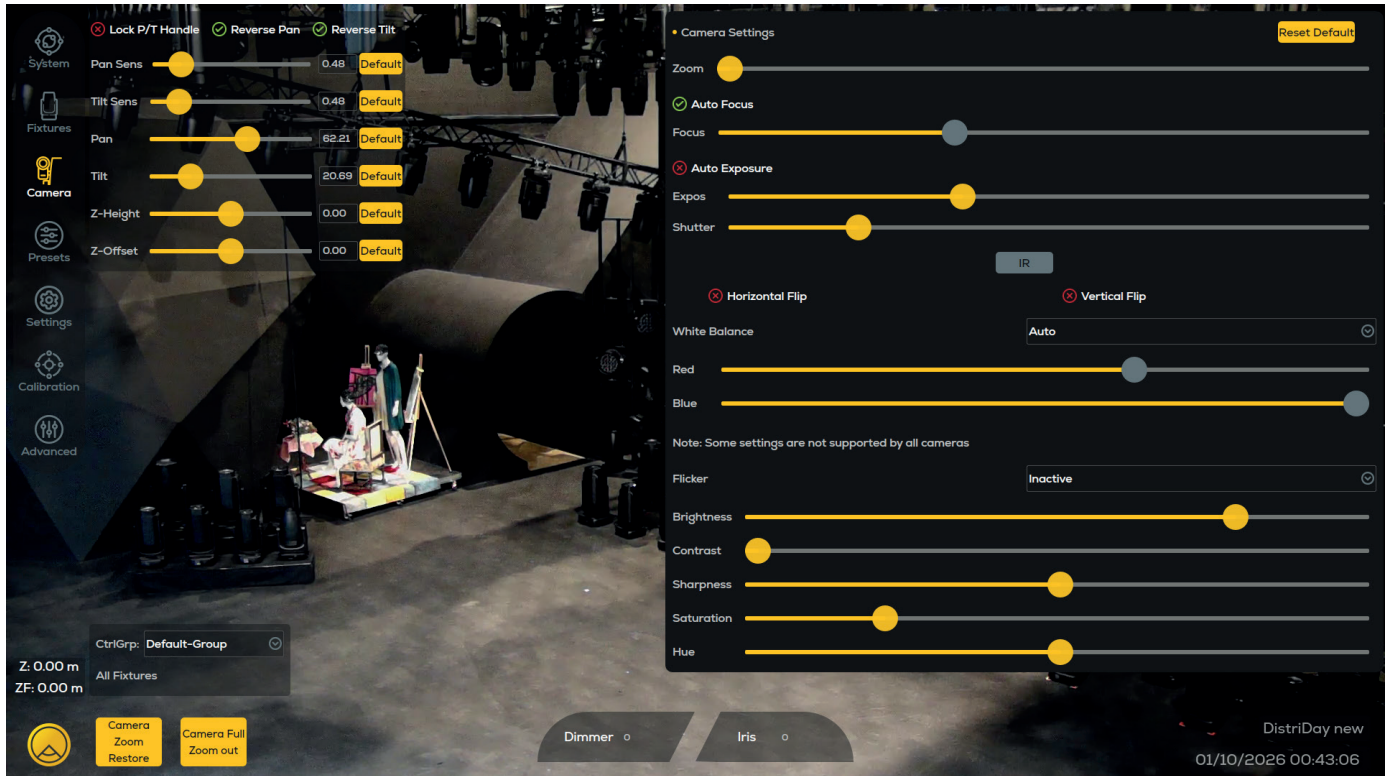


Groups of fixtures can also be created. A Default-Group including all patched fixtures in the show will always be automatically created.

To create a group, select which fixtures the group should include at the lower left corner of the fixture tab, label the group, and press **Create Group**. The groups can also be updated if needed.

4. CAMERA SETTINGS

In **Camera** , the camera settings can be adjusted as needed.



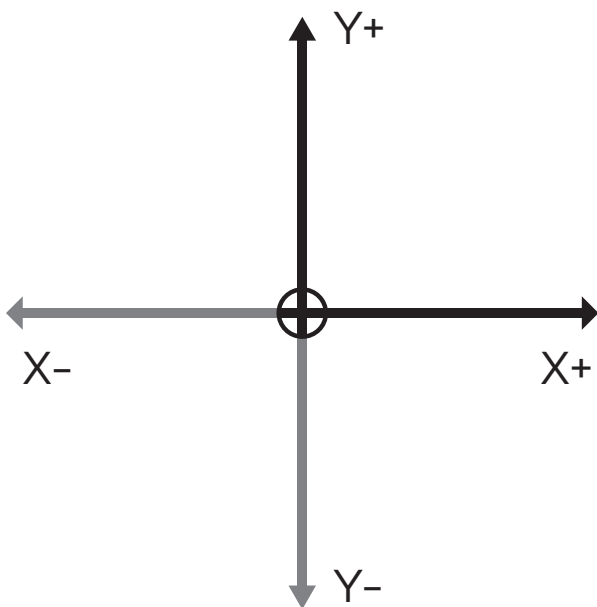
5. CALIBRATION PROCESS

For a One-to-Multi-Spot application, the fixtures will need to be calibrated.

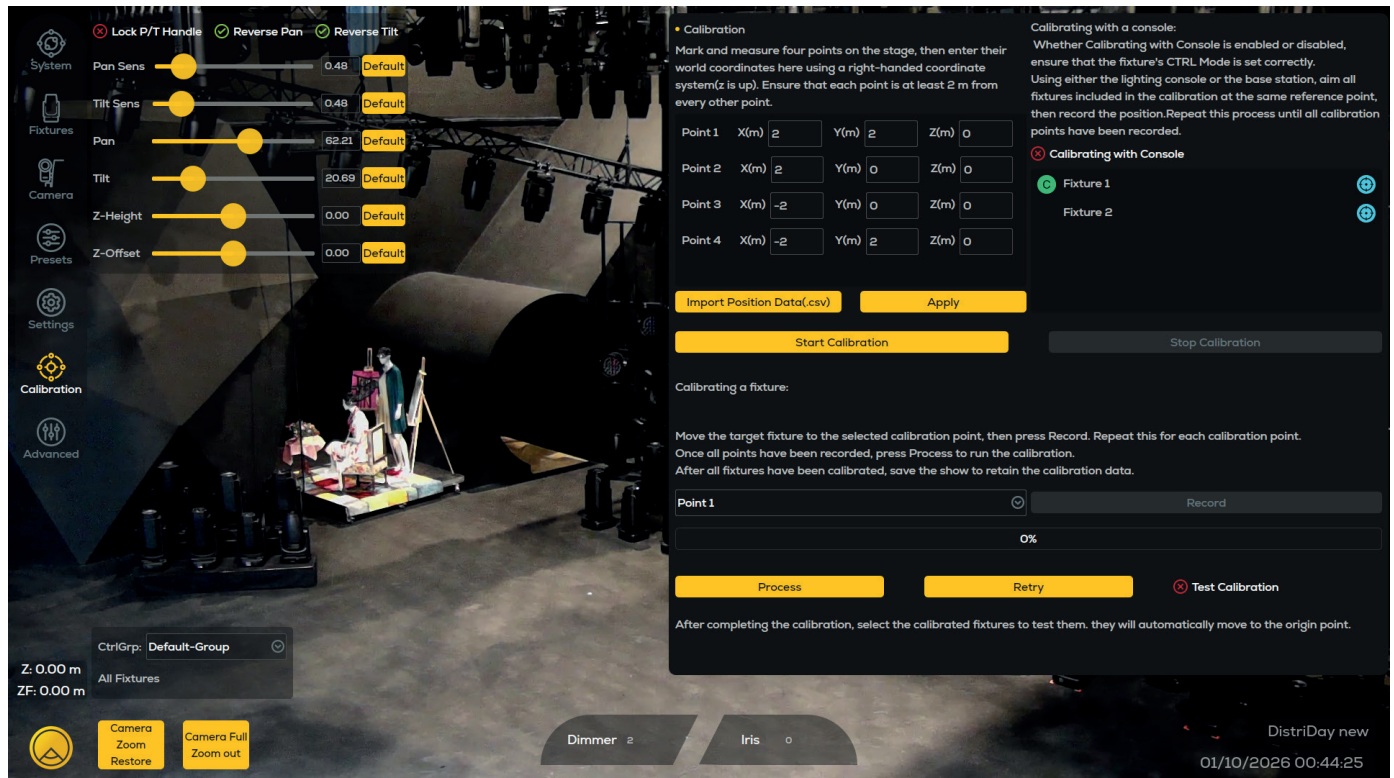
Before starting the process, you will need to measure and mark four physical points in the tracking area, using real-world values in metres, relative to a chosen origin point.

In this 3D space, a right-handed coordinate system is used.

With Z being the height, X and Y are the coordinates on the floor as follows.



In **Calibration** , enter the coordinates (X/Y/Z) of **Points 1 to 4** in relation to your chosen origin, or use **Import Position Data (.csv)** to load them from a file.



For an accurate calibration, the points need to be at least 2 metres apart from one another, and the fixtures should have a tilt angle of 25 to 30 degrees or more from the default position while being calibrated.

Because calculations are based on tilt values between 0 and 50%, calibration should also be done with those tilt values. If done with tilt values between 50 and 100%, it might cause flips when moving the fixtures. If this is the case, a flip option is available on the fixture settings to compensate.

5.1 › CALIBRATION ON THE FALCONER

To begin the calibration process, select the fixture to calibrate in the list.

- Press **Start Calibration**, and with the zoom to its narrowest setting, focus sharp and iris closed, aim the fixture at the first physical point.
- Once the aim is correct, press **Record**.
- Repeat this process for the remaining 3 points.
- Once all points have been recorded, press **Process** to run the Calibration.

The Calibration results will either be good or bad:

- If bad, press **retry** and record all four points once again.
- If good, press **Stop Calibration**.

5.2 › CALIBRATION WITH A CONSOLE

For larger rigs, calibration can be done faster by pointing multiple fixtures at the same four points simultaneously from the lighting console:

- To receive the Pan/Tilt values from the console, the respective fixtures should be set to Console mode first.
- Tick **Calibrating with Console**.
- Using console presets, aim all fixtures included in the calibration at the same physical reference point in turn, then record each point from the console side.
- Repeat for all four points. Falconer captures the pan/tilt data for each fixture directly from the console for each point.

Once a fixture is calibrated, a blue target icon will appear on the list next to its name. Activating the **Test Calibration** button allows you to check the accuracy of the calibration. Select the calibrated fixture(s) to check they will automatically aim at the origin point.

Save the show once all fixtures are calibrated, to retain calibration data.

The show is now operational for a One-to-Multi-Spot application.



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