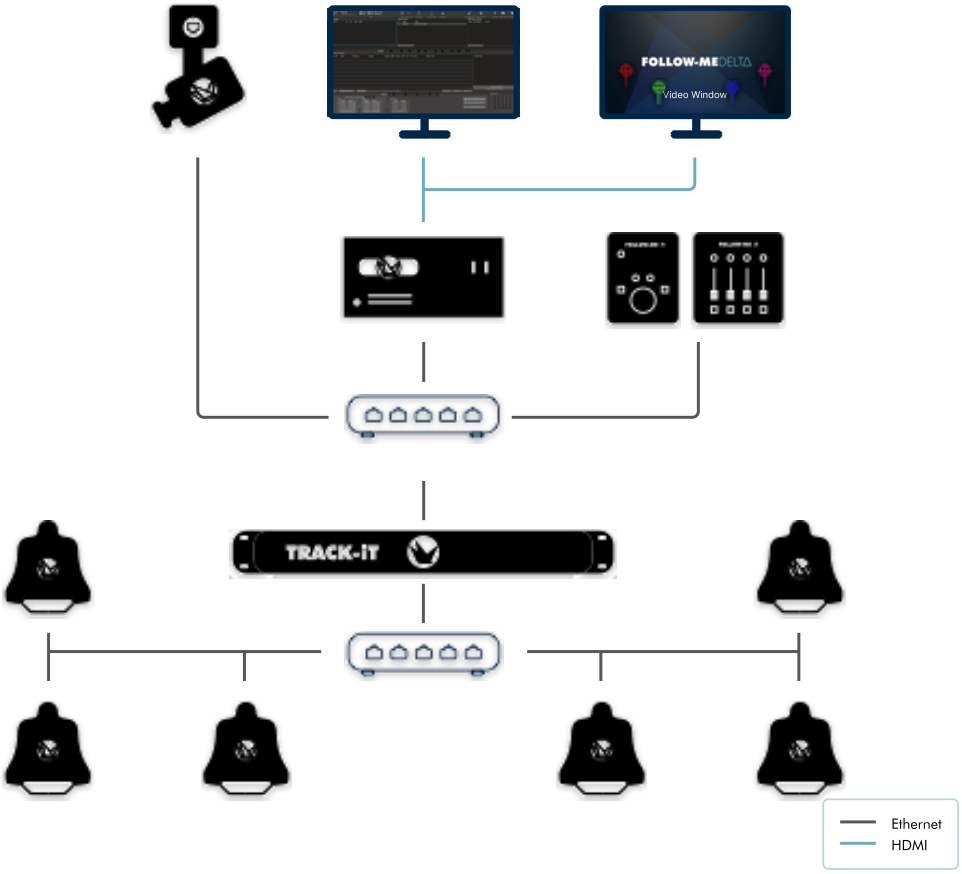
Getting started

Follow-Me Track-iT enables automatic tracking of multiple performers with multiple fixtures using compact wearable RF tags. It combines automatic tracking, manual takeover, and seamless Follow-Me 3D/DELTΔ integration in a single system. This getting started page walks you through the fastest path to a working Track-iT setup. Detailed procedures such as anchor placement, tag placement and motion smoothing are covered in dedicated guides further in this manual.

Track-iT System Overview

A complete Track-iT system consists of:

- 1x Track-iT server, connected to the Follow-Me DELTΔ system
- A number of Track-iT Anchors mounted around and throughout the tracking area
- A number of wearable Track-iT Tags worn by the performers.
- A PoE switch connecting anchors and the Track-iT server
- CAT5e/CAT6 ethernet cables



Typical anchor counts

- For 2.5D tracking, at least 8–12 anchors are advised.
- For full 3D tracking, at least 12–16+ anchors are advised. The system is fully scalable for larger venues.

Follow-Me DELTΔ must be configured first

Track-iT relies on a properly prepared Follow-Me DELTΔ system, where steps including measuring the stage and camera calibration have already been succesfully performed.

Track-iT Setup

In this section, we'll go briefly over the steps you'll need to undertake to correctly setup the Follow-Me Track-iT system.

Connect and configure the Track-iT server

Power the Track-iT server using its provided power cable. Make sure to connect the anchor PoE switch to the **left** Ethernet port when looking at the back of the Track-iT server. Connect the Follow-Me DELTΔ network to the **right** Ethernet port.

In Follow-Me DELTΔ;

- Go to the **Track-iT** tab and open the **Servers and Nets** sub-tab
- Add a server on the left side by pressing the **+** button
- Modify the name of the server, and set the IP address of the server. Default IP address can be found on the sticker at the front of the server. Under *Connection* you should now see "Connected".
- Add a Track-iT net by pressing the **+** button in the bottom left.

Not seeing the Track-iT tab?

It appears that Track-iT is not part of your system license. Contact our support team through support@follow-me.com to unlock Track-iT in your license key.

Mount and connect the anchors

Place anchors around and throughout the tracking area. Connect them via Ethernet cables to a switch dedicated for the Track-iT anchor network. Key principles of anchor placement are as follows;

- Surround the tracking area with anchors
- Maintain clear line-of-sight between the anchors as much as possible
- Avoid any nearby metal objects and reflective surfaces such as water. Use low hangers or magic arms to ensure that the "nose" of the anchor is away from metallic objects
- Place anchors on different heights for accurate 3D tracking

See the guide on anchor placement for thorough instructions on anchor placement.

Important

Keep the anchor network separated from other networks. Ensure that the network is only used for Track-iT anchor communication.

> **Tip**
>
> It is useful to note down which anchor is hanging where, specifically for when you're going to measure the anchors.

Discover and measure anchors

Once the anchors are connected to the switch, they can be discovered in the software. Go to the **Anchors** tab, and under *Unconfigured anchors* press the refresh button. You'll find all the anchors that are discovered over the network. Select the anchors and press the **Configure selected anchors** button. From now, they're part of your showfile.

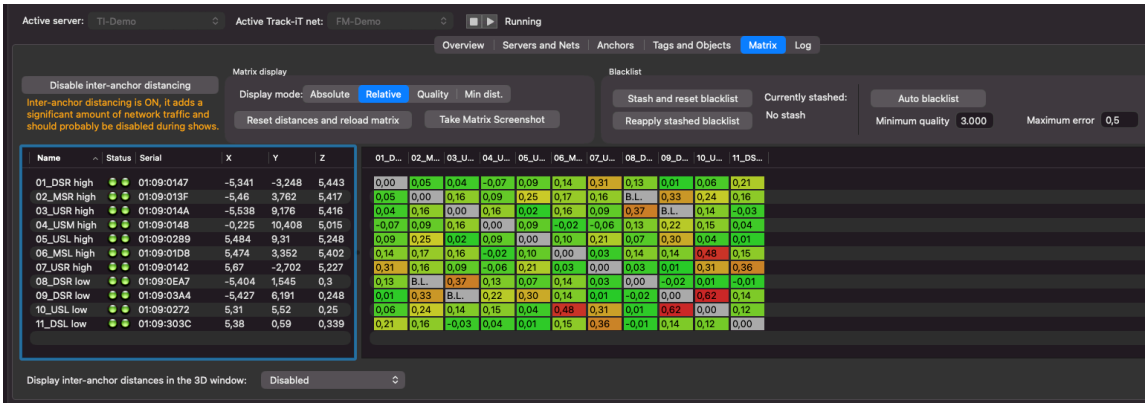
Each anchor starts with a default X/Y/Z position of 0,0,0. Accurate anchor position measurements are essential for reliable tracking. Measure the positions of all anchors relative to the origin position of your tracking area. Using the laser measure integration is strictly recommended for this. Once you have a few known positions for your anchors, the assisted anchor calibration method can also be used.

Once you have measured the positions for your anchors, store all positions by pressing the **Store all to server** button. This will save all anchor positions within your Track-iT net.

Review anchor matrix

When your anchors have been provided a position, it is advised to review the quality of your measurements and of the Track-iT anchor matrix. To do so, go to the **Matrix** tab and press the **Enable inter-anchor distancing** button. Then, start the Track-iT net by pressing the play button next to the *Active Track-iT net* you've created and selected. This will start the network and start clock synchronization between anchors.

In the matrix, the measured UWB distance in metres is shown between each anchor. Check the guide on reviewing the anchor matrix on how to view this matrix and on what steps you could take to improve communication between anchors.



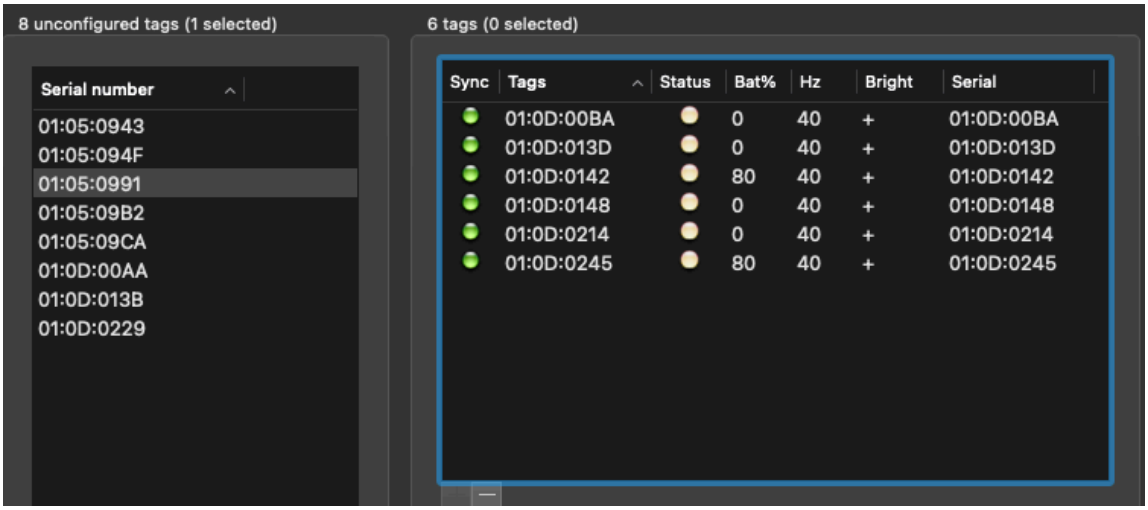
Define tracking boundaries

Be sure to define tracking boundaries within your Track-iT net. Tracking boundaries define the valid 3D tracking area and prevent false or unstable positions. Find the tracking boundaries under **Track-iT** > **Servers and Nets**. Set a min and max X, Y and Z position, and store this information to the server.

Configure tags and create objects

Charge the Track-iT tags by placing them on a powered Track-iT Tag Charger. Tags can be found by the Track-iT anchors whilst a Track-iT net is running:

- Run your Track-iT net and go to the **Tags and Objects** sub-tab
- Place your tags within sight of the Track-iT anchors, and press the Refresh button under *Unconfigured tags*.
- All unconfigured tags will show up. Select them, and press the **Configure selected tags** button.



The configured tags are now part of your Track-iT net. Create one or more objects by

pressing the **+** button under *Objects*. Pair two tags per performer within an object. From then on, simply assign objects to PSN trackers, and assign the PSN trackers to targets within Follow-Me DELTΔ. From that moment on, automated tracking can be enabled or disabled in the top right under the *PSN Tracker Overview*.

To learn about ideal tag placement on performers or objects, please refer to the guide on tag placement.

> **Why two tags?**
>
> Two tags improve line-of-sight reliability, and it helps to find the center of the performer whilst having the tags worn on their shoulders or hips. Also, it helps maintaining tracking if one tag is temporarily occluded.

Optimize tracking

You can optimize tracking quality in several ways;

- Improve anchor positioning (see guide on anchor placement)
- Improve anchor matrix and blacklist anchor pairs (see guide on reviewing the anchor matrix)
- Improve tag placement (see guide on tag placement)
- Enabling reflection detection or out-of-object detection (see guide on)