

Optitrack and Motive motion capture system

This book explains different use cases of the optical motion tracking and capture system (Mocap) Optitrack (camera system) and Motive (software).

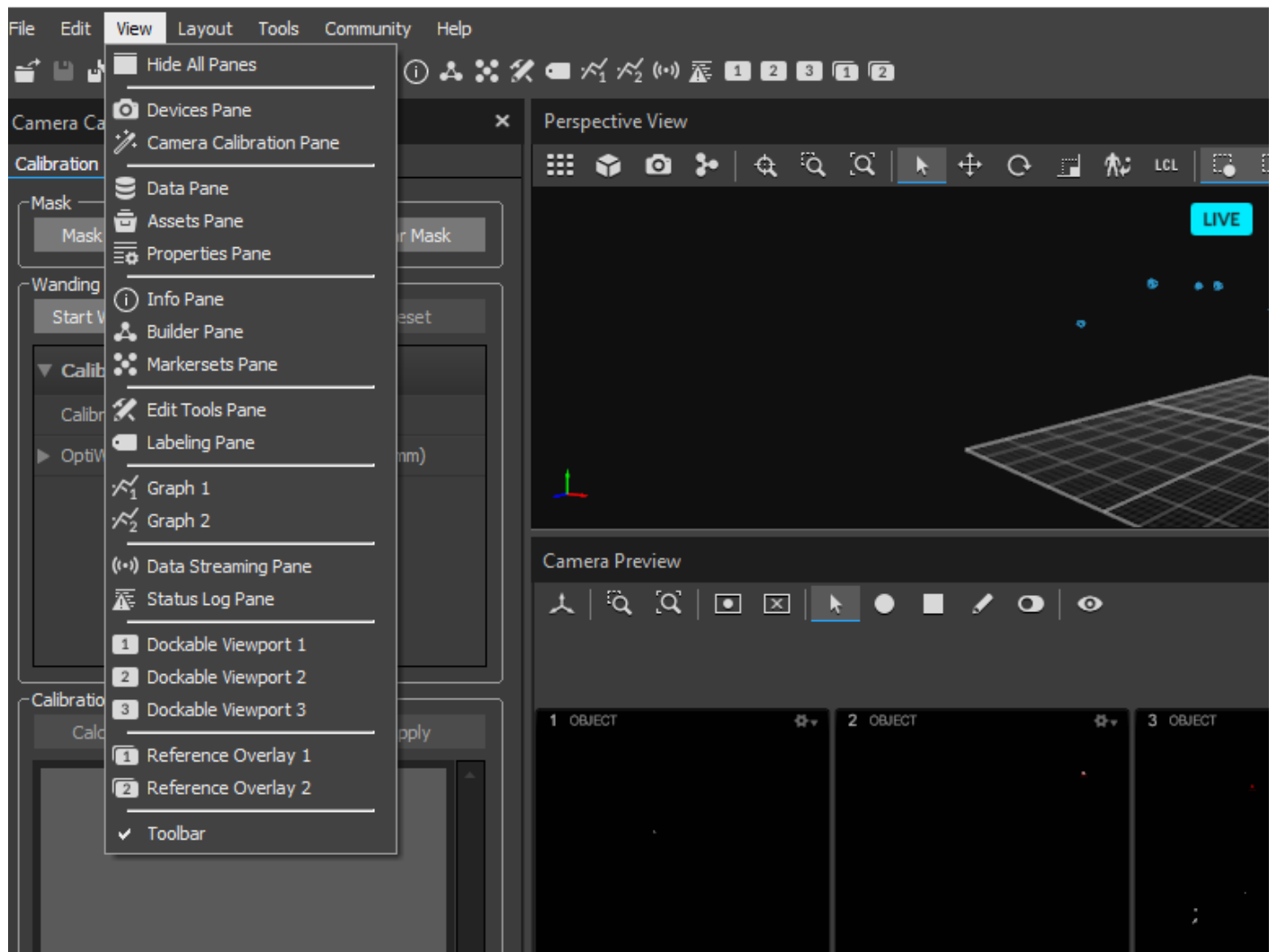
- [Using Motive and GazeboOSC for realtime OSC messages](#)

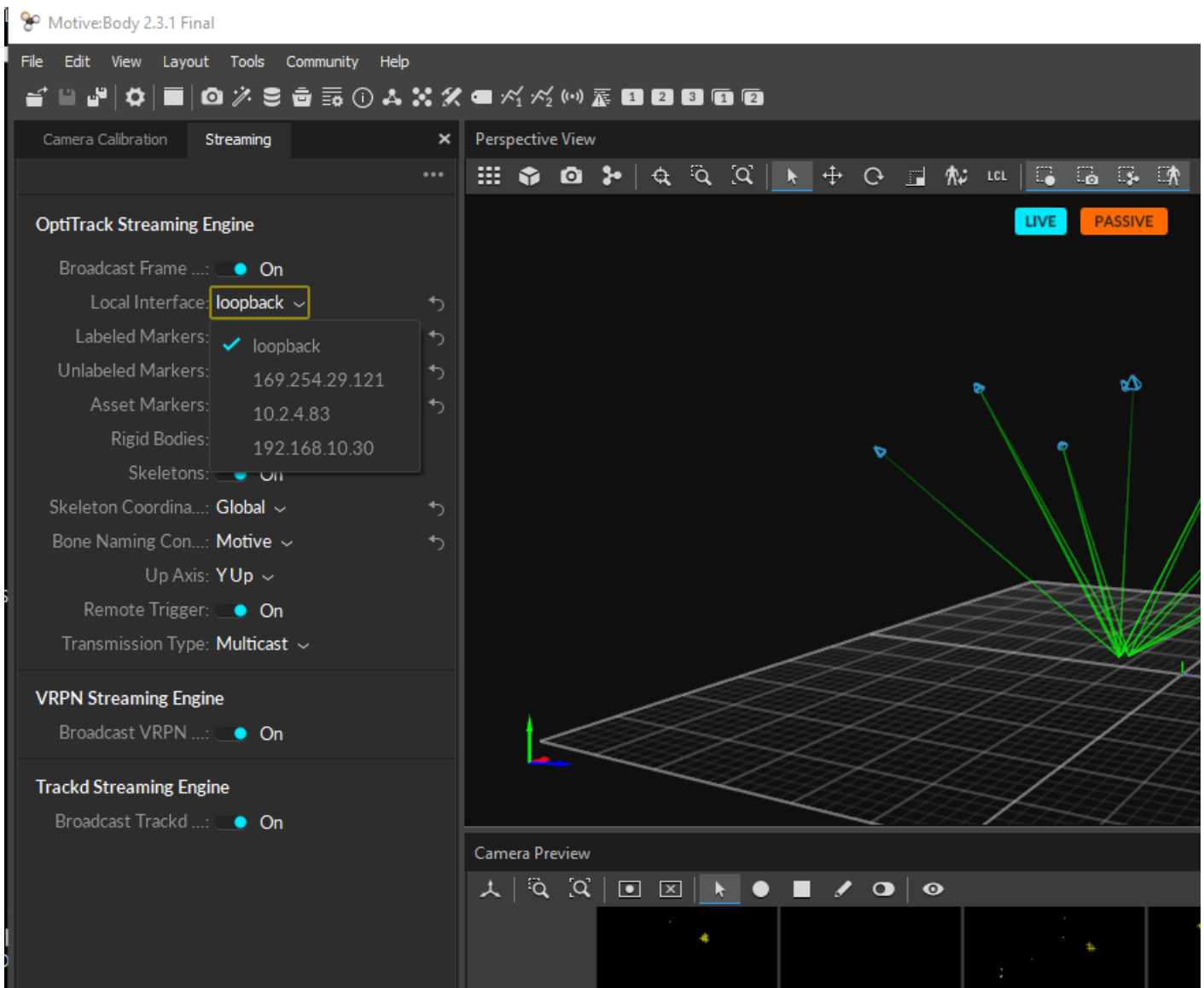
Using Motive and GazeboOSC for realtime OSC messages

The following tutorial explains the use of [Motive](#) with [Gazebo](#) for sending real-time Mocap data to other applications.

1. Preparing Motive

To prepare Motive for sending internal NatNet data to Gazebo, go to the 'data streaming' pane in Motive and set the streaming destination to "Loopback" for streaming data wireless through '[Streaming Vlan](#)' (ask your nearest blackbox manager for more info) or select a network switch for wired connection (The switch in the blackbox workshop at location Oudenoord is by default set to 192.168.10.30). The NatNet data can now be received in GazeboOSC (see pictures below)

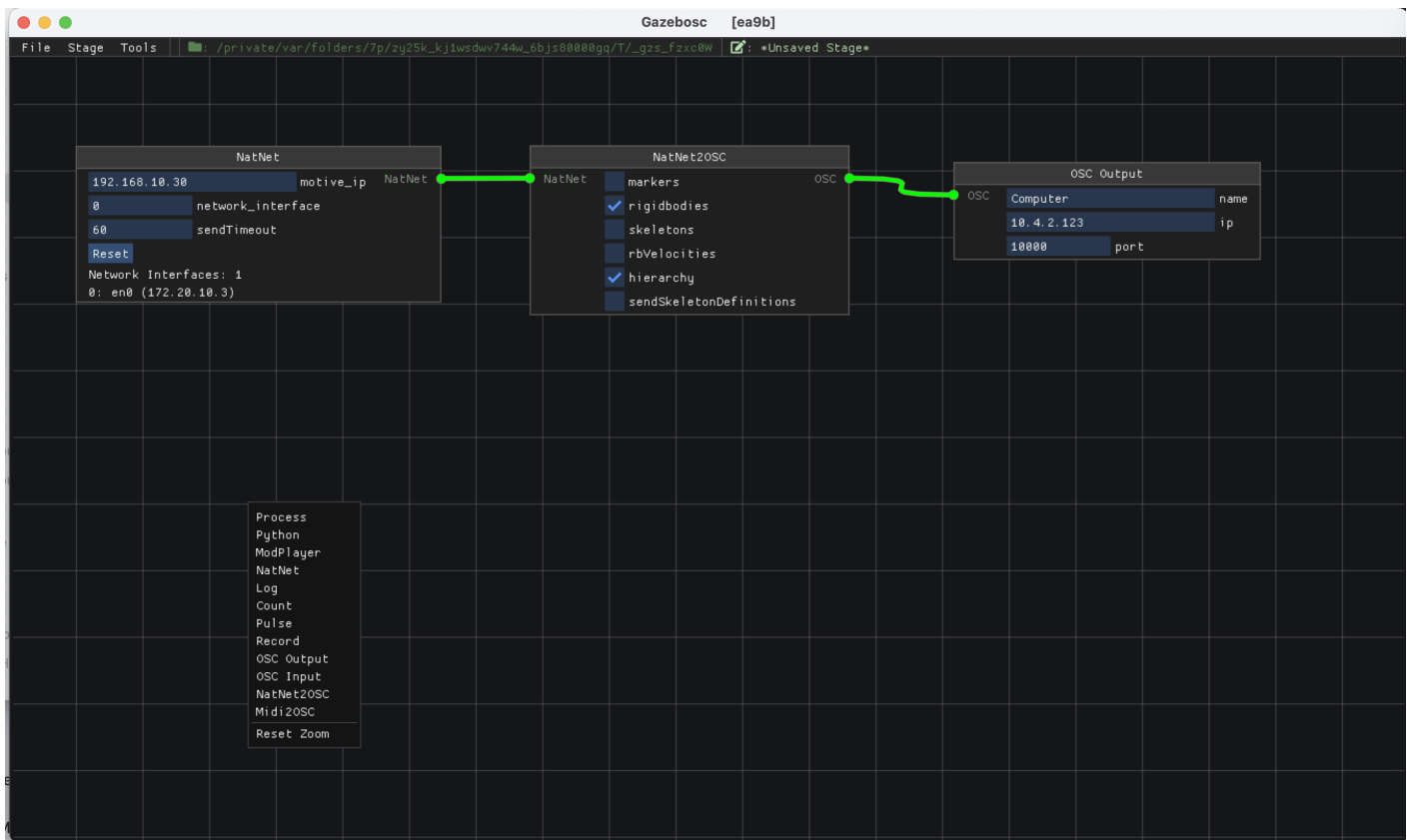




2. Setting-up Gazeboosc

In Gazeboosc you need to build a patch to convert Natnet data to OSC (see picture). Use the following actors by right clicking in the Gazebo workspace;

- **NatNet:** this actor reads the NatNet data which is streamed from Motive. **Fill in the IP adres with the corresponding network interface number and push reset**
- **NatNet2OSC:** this converts the NatNet data stream from Motive to OSC data.
- **OSC Output:** this actor sends out the OSC data to its destination. Fill in the destination IP adres and port number determined by the software who receives the OSC data.



Once the correct connection is established between Motive and Gazebo the patch cords connecting the actors should colour green, an indication that data is streaming through Gazebo. To monitor the OSC data from GazeboOSC, or other OSC, data you can download the free OSC and MIDI monitoring application [Protokol](#).

The following example shows GazeboOSC distributing OSC data from [ZigSim](#) to different destinations.

<https://www.youtube.com/embed/-fbrncBbujk>

A further explanation about Gazebo and it's use can be found at:

<https://bookstack.hku.nl/books/gazeboosc>