**TUTORIAL #1 - INTRODUCTION**

* Open Shogun Live
  + Processing Panel will open
* Top-right there is a “Saved View” layout of different configurations
  + Top-right of the live “window”
    - There is the option to split the screen into different horizontal/vertical layouts
* In the sections:
  + Center
    - 3D workspace
      * Top left of “Workspace”
      * 3D scene, View settings, Camera Position (Front, right, left, back, etc.)
  + Clicking “3D Scene” >> Cameras (opens all of the active cameras)
    - Clicking within one of the camera views will make it Full-screen
      * Change/Tweak the “View Settings”
  + Left
    - System, Subject, Processing
  + Right
    - Camera Calibration
    - Subject Calibration
    - Capture
* Bot-Left there are 3 choices:
  + System
    - Covers Devices that are included in the Mocap System
  + Subject
    - Has a list of subjects
    - Has a list of props
      * Expanding the list will
        + Show list of markers and bones
        + Can also alter the mesh colors
  + Processing
    - Make real-time adjustments of data that is seen in the viewport
* On the Right side:
  + Camera calibration
    - Masking
    - Waving the “Wand”
    - Setting the “Floor Plane”
  + Subject Calibration
    - Ability to capture props
    - Manage Clusters
    - Calibrate Performance
  + Capture Panel
    - Set up capture location
    - Add notes to any captures that you make
    - Trigger external devices
* On the Bot-Right:
  + Data Capture Panel
    - Start/Stop Capture

**TUTORIAL #2 – SETTING UP PROP CAPTURE**

1. Create Database
2. Add clusters to Datastore
3. Prepare Props
4. Set Data level

* **CREATE DATABASE**
* Open Vicon Shogun Post
  + Click on the “Panels” tab (along the top)
    - Click on “Data Management”
  + –OR click Vicon Eclipse
* Under the “data management” tab that opens:
  + Click the “New” database icon (looks like paper)
  + Choose a location
    - Scratch / Personal / Etc.
    - Give it a name…
      * Give it a description…
  + CHOOSE >> SHOGUN ANIMATION TEMPLATE
    - “Create”
    - It will re-open a database selection tab
      * Choose the database file you just created…
  + You will see nothing on your database for the moment…
    - Right-click in the spreadsheet area
      * Select “New”
        + Give it a name…(My Project)

Right click on “My Project”

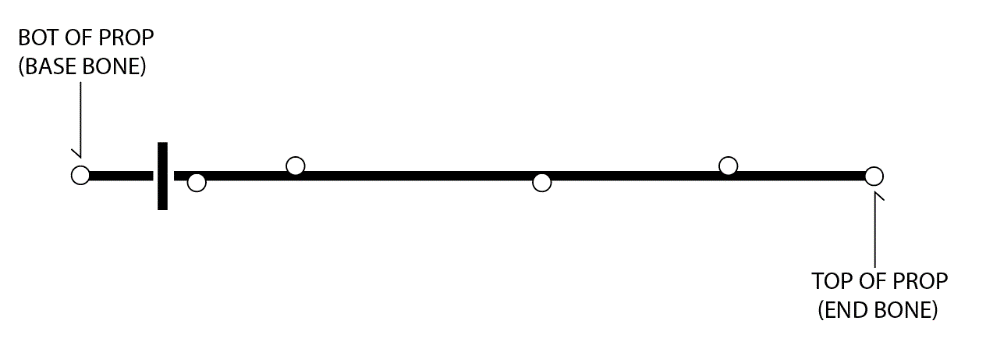
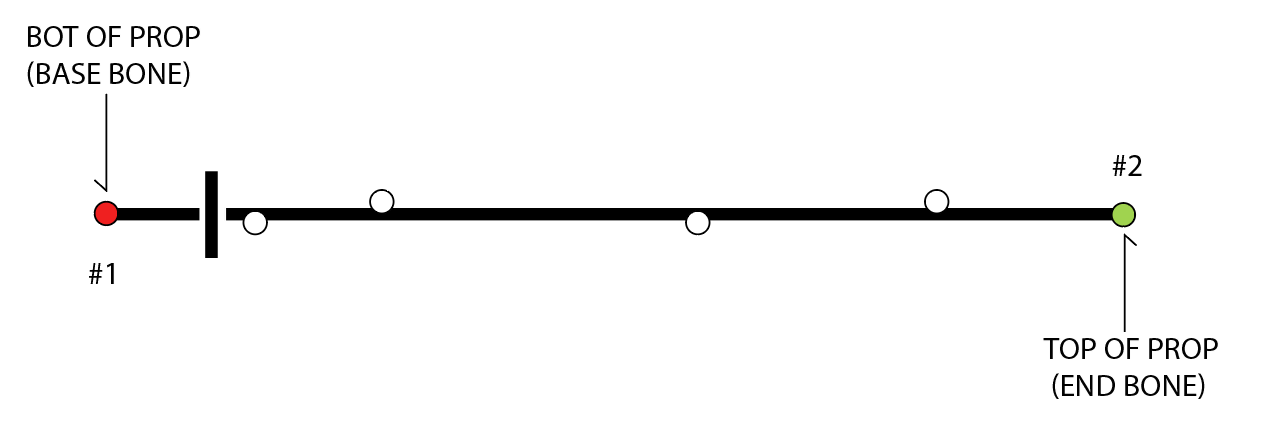
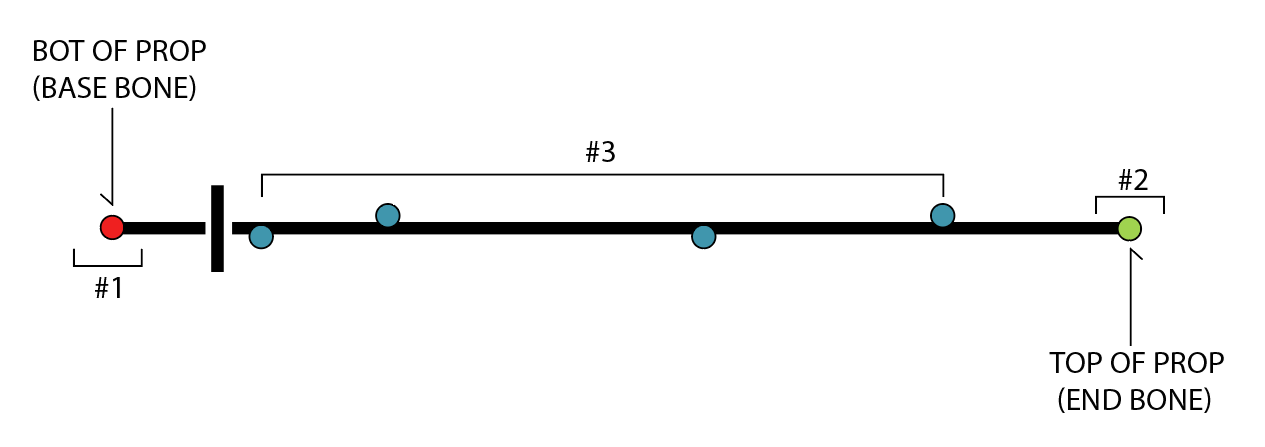
New >> Capture Day

Day 1, Day 2, Day 3, etc.

Right click on “Day 1”

New >> Session

Give it a name…(AM / PM)

* + - * Should see all of your folder structure in your File Explorer now…
* Open Shogun Live
  + Top-right
    - “Capture”
      * Select the “Capture Folder”
        + Navigate to where you created your (AM / PM) folder
* **ADD CLUSTERS**
  + Open Shogun Live
  + Navigate to Subject Calibration (top-right)
  + Either 4-5 clusters on a marker
    - Place them within the capture area
    - Click:
      * Alt + Drag overtop the markers
      * Click:
        + “Create Cluster”
        + Rinse / Repeat process as necessary
    - If you click:
      * “Manage Clusters” (above Create Cluster)
        + Will show you all of the other Clusters
    - Rename your Cluster >> Manage Cluster
      * Right-Click >> Rename Cluster
* **PREPARE PROPS**
  + If you have:
    - Long/thin prop:
      * Place markers at the top/bottom for the ability to orient the bones
      * Place more markers along the sides of the object for consistency
    - Bulbous/round prop:
      * Place markers strategically to make sure you know what side of the object is up/down/left/right
    - Thin/Disk
      * Place markers along edges
        + Notate how you want the orientation to be created. (Like the bulbous prop)
  + ****Imagine a Katana…
    - Within Shogun Live
      * ****Select the Base Bone (1) + Top Bone (2) [Shift click – DO THIS IN ORDER OF “BASE” TO “END”]
    - ****Now select the rest of the points
    - Give your prop a name…
      * Then click “Create Prop”
      * Ready for capture!!

* **SET DATA LEVEL**
  + Click into the Processing tab (bot-left)
    - Processing Output Level (top-left)
      * Reconstruct, Label, Solve
    - ALWAYS ALWAYS ALWAYS CHECK YOUR OUTPUT LEVEL
      * Reconstruct
        + Will only record and reconstruct Data

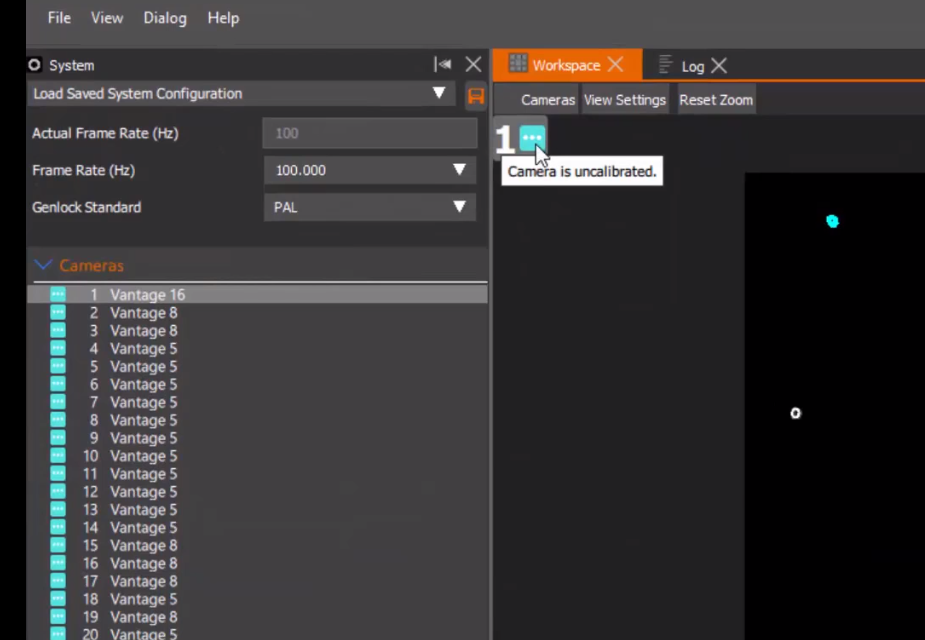
No solvers

No Joints

No Labels

* + - * Solve
        + Skeleton Data
        + Labels
        + Head / Base solvers

**TUTORIAL #4 – SYSTEM CALIBRATION**

* **CAMERA SETUP**
  + ****Select “System” (bot-right)
  + Hovering the mouse over the 3-dots will show that the camera calibration system is not calibrated.
    - Double-click on a single view to show ALL cameras
      * Noise may show up in your calibration settings.
        + We need to eliminate this…
  + Enter the “Camera Calibration” tab (top-right)
    - Click “Start Masking”
      * Check how the cameras (in the camera view) are capturing the data…
    - In the “Wand” drop-down menu:
      * Choose the type of Wand
        + Click “Show Advanced” (above wand drop-down)
        + Click “Activate Calibration”

Check to make sure everything is being capture accordingly

* + - Exit “Show Advanced” (Camera calibration)
  + Click “Start Wave”
    - This is a dynamic calibration process
      * Cover the depths AS MUCH AS POSSIBLE
        + Low/high/rotation/translation
      * Keep the LED’s / Markers as visible as possible at all times
        + You will see a percentage meter start to rise…

Keeping the numbers within the 1000’s is ideal

In the Camera views

Flashing Blue, Quickly flashing Blue, Green

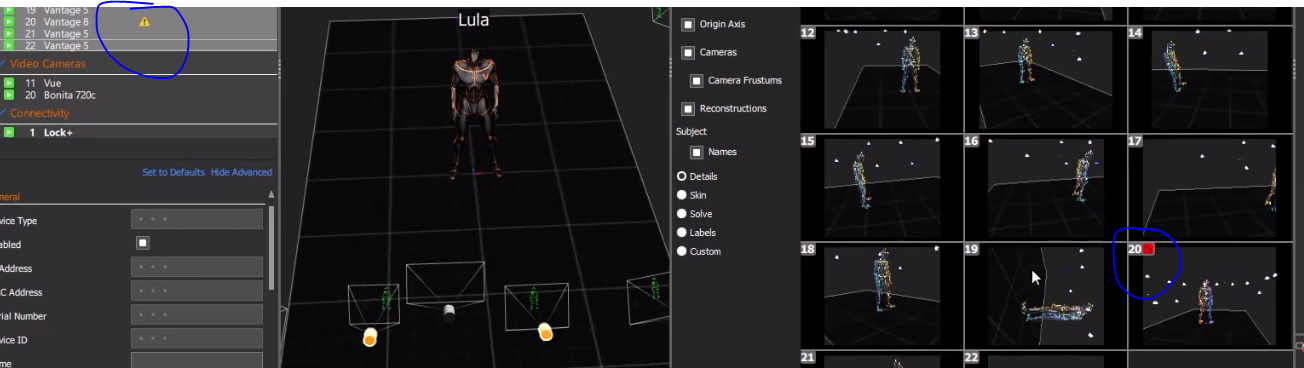
Begun Calibration

Picking up a lot more frames

Received enough visual information

* + After wand-wave has been completed
    - Calibration will come out of calibration-mode and dynamically adjust
  + Click “Set Origin”
  + Set the wand flat on the ground
    - Place at least 4-5 extra markers within the space
  + Click “Start Set Floor Plane” (WAIT WAIT WAIT)
    - Inside the Advanced options
      * You can provide an offset (mm)
        + NOW click the “Start Set Floor Plane”
    - You are also able to “Set Floor Extents”
      * Change as necessary
  + Click “Auto Number Cameras”

**TUTORIAL #5 – SYSTEM HEALTH AND CAMERA FIXING**

* Select the “System” view
  + ****You might see a warning of certain cameras
  + Click on the Camera itself
    - Hover over the icon itself and check the warnings
      * Camera Centroid – accuracy of the centroid
      * Temp warning – rising camera temps
* Camera Healing
  + Select the camera in the Camera list (System – Left side)
    - Go to the Camera Calibration (right side)
      * Click “Recover Camera Position”
        + Have your actor move around
        + Wait for it to pick up new frames
      * Re-Click “Recover Camera Position”
        + Camera will now correct itself