**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