September 13th, 2021

Added segments, 30, but later added the clavicle in the back to make 31.
Gave 4 letter names and color coded them. Then we IDd all the points on our data to our color coded names. Rectified after they were identified.
Create links for a new template, then link all the segments. First head, then pelvis, then identified the trunk separate upper and lower segments so blender can identify.

-Created a plane from hip to thigh to knee
-Created a plane from the knee to the ankle
-created a place from ankle, heel, toe
-Create a spine (pyramid)

Found holes in the data, highlighted them and used the cube function to fill them in.

Saved and exported as the CD3 File, and the file became corrupted. Lost all motion capture data.
Checked for exported files and found it, opened it through Cortex, still lost the data.

Maybe have to rename the file to override it to prevent corruption?

Redid the trials of motion capture data made the points NOT collinear to make more obvious planes.
Used

September 15th -
Sent a message to support about :

WARNING: the capture contains track files with inconsistent length, this indicates a possible corruption of the capture. The shorter tracks have been extended with empty frames.

We thought when we saved it as a CD3 file it would get corrupted,

Created segments to prepare it for rigging in a blender.

September 20th
Made more data for motion capture to compromise missing data from previous written error.
Data consisted of two trials of T-pose and 2 trials of jumping jacks.
Smoothed the data
Made segments and then saved it under trial 5.
Hair was covering c7 during impact on jumping jacks, so redid jumping jack trials.

Sept 21st, 11:00 - 12:00
Took 20 data trials for jumping jacks and t-pose. Named and connected the points but did not make segments.

Sept 23, 2021 9:30-11:00 am

Retook data and created a new template seeing if the old template was the cause of corruption

Created new markers and links, the links were color coded for organization
31 markers and 43 segments

Template rectify
Skeleton off
Rotation order xyy
Smoothed the data
Saved the cd3 file

opened second file, used the template just created, (template ID func) and smoothed the data (this means smooth function, cut and cubic join function,
Save capture as cd3 file under AVATAR
Repeated for all of the trials taken.

No corruptions so far, no lost data taken from today
The warning came after all the trials were saved, all data was lost.

Sept 27, 2021 3:00-4:00
Add remove, template, save as. Save the data, rectify, smoothen it, calculate segments, file save as c.

Every time we edit it, (smoothen it and then calculate) we edit it under a new name.
Found that the way we were saving files was causing the error. Instead of replacing files, we want to change the name of them and save them differently. (Added b and c to the end of the file name).
We can smooth the data by just hitting the m which is much quicker.
We need Dr. creath to use blender, he downloaded it onto the computer, but when we log in, blender does not appear.

If we save the calculated segments under name c, go back into it, we have to calculate again, Sometimes it asks us to save a setup file, sometimes it wont, maybe it is because we aren't saving the setup file its not saving segments?

September 28th 2021
Open the file in visual 3D and export as cd3 file.

Move that cd3 file into older version of blender 2.79.
File import
When we import our data files into blender, there are a bunch of ghost points

When we import carnegies data captures, they work without the ghost points
Question: What are we doing differently? How do we fix our data capture files?

We opened the capture files back to VISUAL3D and now try to export the file as
Cd3 and checked the first box “Export original first frame”
Did not work, second box did not work
Third box “Export digitizing marks as targets”
Gives same effect as second box
Fourth box “gives the same effect
The ghost points are still visible.
We tried to use an older version of cortex (cortex 7) and export the CD3 files from there, when we tried to open them in blender, but the same issue keeps happening
They all work but they have the asme ghost plots/
Take a carnegie mellon files, open in visual 3d, and try exporting it in blender. If it doesn't w

September 30th, 2021 9:30-11:00 am

Still can't figure out why ghost points are appearing in blender
We tried using motion builder instead, and the same problem kept occurring.
Maybe it is the force plates?
We tried going through visual 3d and manually picking what points we wanted to show,
We took trials without using the force plates and they looked better when imported into blender.
There were no longer ghost points, just messy original data points.
We sent an email to motion analysis support asking for help on our issue
When we go into edit mode, the points are static but they are in the correct spots, in pose mode is where it gets messy
We tried redoing the trials with the pressure plates turned off and less markers. We removed the markers in between segments along with c7 and psi points.
It looked good until we pressed play then it went static and messy. We tried exporting it as a bbh file before hitting play to see if we could get this good portion.
When we import into a new blender the x y and z axis are not aligned with what we had before,
Our person instead of standing up is on their side along the x axis.

*look up how to reassign z y and z plane in newest version of blender

October 4th, 2021 3:00-4:30
Had trouble making segments on visual 3d so we went to cortex to make segments from there**.**
Can’t make segments in blender
Having trouble making them in Visual3D.
Tried exporting a model with segments into visual 3D to see if they all transferred without problems.

October 5th, 2021 11:00-12:00

Redid the trials putting markers on the inside of the knee, other side of the wrist, bottom of the elbow joint and other side of the ankle. Did t-pose and jumping jacks Made markers for these points and made links in between the markers. The software was extremely slow and laggy, it took forever to name these markers and links for one trial, so we exported it to the visual 3d studio.
We were able to make segments in visual 3D since the new markers were not virtual but real. Went back into graphs and individually check them

October 14th, 2021 9:30 - 11:00 am

Still getting ghost points but our data seems to correctly be showing up. At frame 1000, the points get very wonky =, but only for moments, when we are in modeling, there are no ghost points. We will probably use modeling mode. We are trying to make bones based off of these data points. We can create a bone, but we don't know how to snap it to the data point and have it stick to the data point as the point moves. We got rid of the initial bone and that got rid of the extra gridlines.

Using the lasso to select a point, using the extruding function, we are extruding it to the next data point. It locks onto the point, so it is recognizing the data points = good sign.
Saved the file as 211014_armatures.blend

October 18th 3:00-4:00
WHEN YOU APPLY THE STATIC MODEL TO THE MOVEMENT, MAYBE THAT IS WHAT DEFINES ALL OF THE COORDINATE SYSTEM. First apply the model to the static trial, then save that template and use it on a movement file.
FULL MARKER SET IN T POSE an then take the medial markers off, ankles, knees, elbows,
Looked at setting object origins

October 19th

October 21ST 9:30 -11:00
Made the entire skeleton model on visual 3D, tried to export as cd3 file into bhv file into blender. We were hoping that by making the skeleton in visual 3d it would help in exporting it to blender. It made no changes

October 25th 2021: 3:00-4:00
Starting playing with carnegie cd3 files:

In Visual3D:

Normal in signals and events

Weird in model mode

In Blender:

The model was oriented differently, had to rotate to view the whole thing. , So is our model so there is no difference there.

Discovered that a marked name stayed on one selected vertex for the duration of the animation, however, marked points on our bvh files are constantly moving to different vertexes as the animation plays. Our issue could be surrounding this.

October 26th 2021 11:00-12:15

Our next possible solution is to edit variables on the cd3 files so they are the same as carnegie mellon's cd3 files. We are using ezc3dAddEvent code and applying that to our cd3 files using Octave.

Oct 28, 2021 9:30-11:00
****SOLUTION!****

We use the app mocha that shows us the extra unnecessary markers in our file. We exported the cde3 file from mocha into visual 3D, and took the resultant cd3 file from Visual 3D to put into Blender. It now works without issues, just like carnegie mellon files.

Now that we have correctly exported a cd3 file into blender, we are working on creating segments using those points. Right now there are issues with attaching segments to the joints. It is only snapping to one, so when the figure moves, the second point only moves in respect to the first, instead of being properly attached to the second point. We troubleshooted to figure out how to attach 1 bone to 2 points.
We looked into the snapping function, then we looked into parenting function.

Monday November 8th: 3:00-4:00
Can figure out why there are armatures made for each joint in the motion capture. We tried to download Carnegie Mellon's files, and they have the armatures for each point as well. We want the armatures to extend from one motion capture point to another point. Instead each joint is one armature, and they just extend straight downwards. Each armature is only associated with one point.

Tuesday November 9th 11:00-12:00
First manually made armatures on frame one of the animation, and then used the damped track function so the armatures would follow the points. There are issues because as the armature moves, the segments should be shortening and lengthening but since we've made the armature with a set length in the first frame, it will not do it. Animation looks ok but funky in areas with more shortening and lengthening. (such as the shoulders)

Now have to figure out how to put a shell and rig over it
First, we want to download a shell and learn to attach it to the armature.

Monday November 3:00-5:00

Wednesday November 18th 2021 9:30-11:00

Took more simple trc file into mocha, saved it as CD3.
Opened that CD3 file into Visual 3D, exported that CD3 file
Opened blender 2.7, imported the cd3 file,
At this point the file was a working jumping person.
Export the cd3 file as a bvh file
Import the bhv file into blender 2.9
Person comes in rotated, so use blender rotation tool to stand them upright

These files have no venter point markers