

Motion Capture and Real-Time Control

July 15th: I started off this week by fixing the smartbody code update issue. Apparently the address they put in the smartbody manual was an old version that is no longer being updated. So while it said my code was up to date, it was actually four months behind. I deleted that repository, and I am currently downloading the actual new code from sourceforge. I also installed Visual Studio 2010, and then built the Smartbody .sln when it was finished downloading. I also tried to build the kinectviewer as well. Which resulted in some issues. Apparently installing some software could fix said issues, so I installed the Microsoft SDK 7.1. It fixed some issues, but in the process created others...which could apparently be fixed by the 2010 Service Pack. So I am currently installing that, but it's taking a while.

The error was Error LNK1123: failure during conversion to COFF: file invalid or corrupt.

July 16-18th: After letting the service pack finish installing overnight, the problem was fixed! I am no longer getting the LNK errors, and everything compiles! I can run the SBKinectViewer, but unfortunately the gui breaks when I try to run the kinectDemo.py, which is pretty lame. I am trying to work out why this is happening. Never really came to a consensus.

We got a newer version of FFAST from the creator, since he is a friend of the ArticulaLab. This one has motion capture capabilities. It exports the user's movement as an fbx file, which we can then load into Maya, and export as a dae file that Smartbody can hopefully use, to integrate it with Alex. As of now, I can't seem to get the animations to do anything in Alex. I run them, but he doesn't move.

I am also still looking into trying to get the realtime control of Alex working. However, since the version of smartbody that Alex uses is 2008, and I built the 2010 version, I had to rebuild the entire file so I could rebuild the kinectviewer applications. But, SBKinectViewer, the one I was using previously that works off of the Microsoft sdk's doesn't have a 2008 version, so now I have to switch to the OpenNI viewer instead. This involves getting the new drivers (and uninstalling the Microsoft ones -- you can't have both installed at the same time) to make it work correctly.

After I got the new drivers, I got the OpenNI kinect viewer working. However, the real-time control still doesn't work. The program doesn't seem to send any messages to Smartbody when it is tracking a skeleton.

Since I was stuck there for now, I moved back to the motion capture stuff. I tried figuring out a way to convert the fbx files to skm, the Smartbody filetype that all of the other animations are. Eventually used an old script created by a previous ArticulaLab grad student created, which does convert them to skm. However, they still don't load into Alex. And again, I'm not sure why. I still have to try the OpenNi kinectviewer with eh Smartbody KinectDemo.py to see if that does

anything.