

EXAN-2009-501 3D Modeling & Animation 2

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Final-term Character Animation Project

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Artist Statement

For my project I opted to create a realistic human character, as that was the next step in my modeling learning process. Matilda is the name I gave to my character, she takes inspiration from the *Mirror's Edge* (2008) and *Dying Light* (2015) series as both media have characters that run, do parkour, and wear athletic gear. I opted to work on a walk cycle for my animation as I wanted to see what the final result would look like; it was amazing to see my character go from a primitive cube to a textured, moving character with life.

My main goals going into this project were to get comfortable and familiar with the character creation and animation workflow, and after extensive practice, I am now more confident with UV unwrapping, rigging, weight painting, and controlling and animating a rig.

Making and Problem Solving Process

My main process for developing my final animation was to do all the workflow steps after another. I created a full rig for the character, then binded it to the skin before manually weight painting and adjusting the joints of the character. One problem that I had throughout my project was that my character proportions were just not exactly right. I think this could've been fixed with better orthographic sketches and anatomy knowledge. This was especially apparent around the hips and thighs, and affected the deformation of the legs in the walk cycle.

Another issue I had was integrating my Xgen hair into my animation, I tried many different ways, using the alembic cache options, but Xgen was not easy to locate in my file directory or work with in the first place.

Lastly I ran into problems with the animation itself. It looks pretty robotic in my opinion, despite my efforts to smooth curves in the graph editor and follow natural walking motions with animation guides. It is my first time doing an organic and rigged animation with so many complex moving parts, so I can accept that it represents a great improvement in my learning however.

Achievements and Discoveries

The main discovery I made during this process was MAYA's Xgen plug-in for hair and grooming. I had a lot of fun learning and creating my character's hairstyle. There are so many options to groom long, short, fuzzy, greasy, colorful, realistic, or insane hairstyles. I learned the grooming workflow, and even that certain big companies have people whose job it is to be a digital groomer for characters! Xgen was a pretty buggy plug-in though and I did have problems with the file association and recall, as well as animating the hair, which I just ended up removing in my final animation.

I also went into this project with no experience with rigging, weight painting, or using NURBS to control a character. All of these skills I practiced, developed, and achieved competency in, which I am really happy about. By the time I started my animation, my character's rig had fully opposable thumbs and fingers, as well as every other joint in the body, using IK for the legs.

Lastly, I am proud of how my character model turned out. Obviously there is still work to be done cleaning up the textures and UV maps, but the main mesh, the topology, and the hair are all well done.

Final Animation Stills

