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Maya to VRML 2.0 - Exporting basic stick figure geometry bound to a kinematic skeleton with its IK handles point constrained to the motion capture markers:

The settings I used in the Maya VRML 2.0 export:

File > Export All > VRML 2.0

Check off Default file extension

Animation Options:

Check off Loop, Time Slider, and Enable

Enter your start and end frame

Step is set to 1

Frames per second at 30

Animate check off: Vertices, Materials, Lights, Cameras, Transf

Uncheck Animation Curves under Key Frame using

Export Options:

Hierarchy should be set to Flat

Check off Joints

Export: All

Tessellation: Quads

Include: Check off Cameras and Lights

Debug Info: Check off Cameras, Lights, and Geo/Mat

Texture Options:

I checked off Evaluate. Note: I had no texture files, nor procedural textures. I simply created lamberts with different colors.

I left the X Tex Res and Y Tex Res set to 512.

I left the Max X Tex Res and Max Y Tex Res set to 4096

For Texture Search path, I left this empty because I had no texture files.

VRML 2 Options:

Under Navigation, I checked off Examine and Any so that the user can choose any of the other navigation methods such as "Walk" or "Fly."

I checked off the Headlight option because I did not create any lights within my Maya scene.

I left the navigation speed at 50.

I left the float precision set to .xxx.

Under Export, I checked off all of the boxes: Normals, Textures, Verbose, Compressed, Color Per Vertex, Opposite, Long Lines, Launch Viewer, and Reverse.

I left the Texture Path field empty because I did not create any textures within my Maya scene.

I left the Run Script When Done field empty.

Then select: Export All and wait. Depending upon how much you have in your scene, this can take a while. I tried going to the Task Manager within Windows during this process because I thought Maya had froze. Maya did freeze within seconds of pulling up the Task Manager. It is only when I left the computer alone, and had no other programs running except Maya, that it was able to export a VRML file for me.

Maya's VRML 2.0 exports don't always view correctly in Cortona – the VRML viewer I am using with Internet Explorer.

I had to edit the code within VRML Pad.

Specifically, I had to set values for the emissive color of the lamberts, because they were set to black (0 0 0) as a default. Since the background was also black, when I first tried to view the file, I only saw black. I didn't see anything within the VRML scene.

Assigning color was not the only problem. Because I had used duplicated geometry within my Maya scene on my stick figure, this created a bug within the VRML file that would not let me preview it from VRML Pad.

I had to use the "Shape" node information from the object that was duplicated for the duplicated objects. That is, I had to copy and paste the information of the object that was duplicated into the spot where the duplicated object would go. I then changed the name of the object to match what the duplicated object was supposed to be.

Lower in the file, where each object is DEFINED, I had to change the names within the geometry "USE _____" line to match the name of the shapes I defined above.

At the bottom of the file, where the animation coding is, I had to replace the GeoPoints in the ROUTE lines to match those of the shapes I defined above.

I also changed the cycleInterval to a higher number, i.e. 5, in order to slow down the motion of the dog.

When rotating about the animal through the Study navigation tool, you can slow the speed of navigation down, or speed it up, by right mouse clicking within the VRML scene and choosing "speed." You'll see the options.

For Cortona, if you choose "Fit" in the lower right corner, the plug-in will automatically zoom in on the geometry so it fills the whole screen at a particular point in time. If the object is animated, it will quickly leave the view.

"Restore" will simply take you to the original view of the VRML file when it loaded.

If the author set up different perspectives of the scene, you can flip through them using the arrows beside "View."

My navigation defaults to "Study" and "Turn." However, "Plan" will zoom in and out, "Pan" will move your perspective to the left or right, up or down. "Turn" rotates lets you rotate your perspective about the object. "Roll" will roll the object on the screen. Don't select the "goto" button, or you'll have to reload the wrl file within your browser in order to get your navigation back.