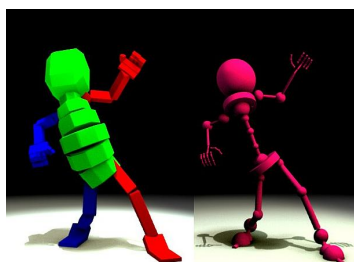




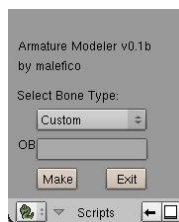
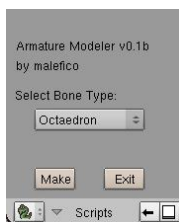
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Modeling Armatures with Python



I have just written a small but useful (at least for me) python script I'd like to share with you. This program creates geometry for every deforming bone in an armature and parent it to them, so you can have a "solid armature" that could be rendered with lights and texture as any regular mesh.

To try it just download it [from here](#) and copy it to the Blender python scripts folder (in linux it is blender_folder/blender/scripts) start Blender, and run the script from "Armature Modeler" entry in Animation menu in Python window.

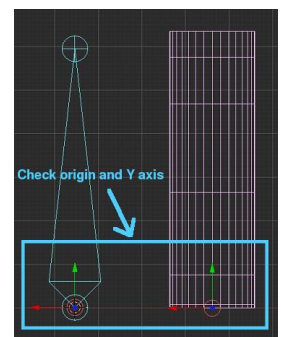


By default the script generates an octaedron mesh that resembles a bone, but you can use your own bone geometry using the "Custom" option and filling in the name of the custom object you like to use instead.

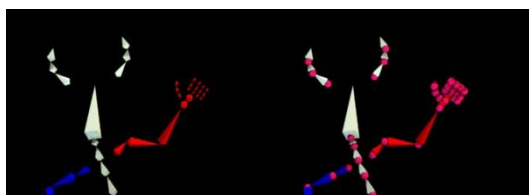
Only thing to be careful about when using custom geometry is to be sure that the center of the object is at the base of it, and that the Y axis is the longest axis of the object, since that

will be the longest axis of the bone as well. The script will automatically adjust the length of the object to make it fit the bone's length.

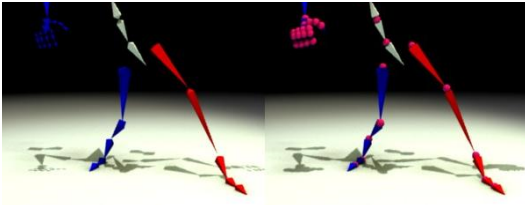
All custom objects created by the script are linked copies, so if you edit the geometry of one, all copies will be edited as well. Same applies to materials.



You can use this script everytime you need to render an armature, either in stills or animations, and also to generate low-poly proxy characters. Script will only work on **selected bones** with **Deform** option activated . You can run it several times on the same armature using different bone selections and different custom objects or octaedrons in order to create more attractive models.

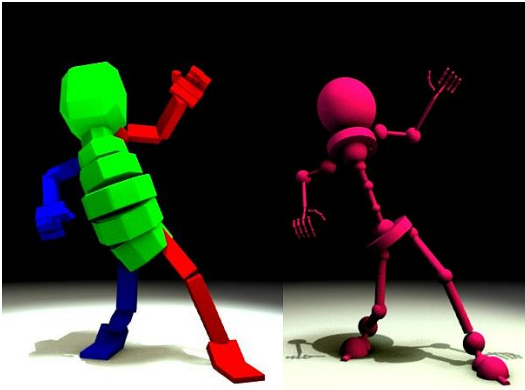


In this picture in the armature at the left I used the default options and then applied different materials to the meshes. When using Octaedron option each mesh has a single user so if you want to change material for all the



bones you need to select all meshes and link to materials.

In the armature at the right side, I ran the script one extra time but using custom option with a sphere mesh. After that I selected all spheres (easy with Select->Linked->ObData) I cleared scaling (**ALT+S**) to turn them back to spherical shape.



In this second picture in the armature at the left I used several custom shapes with different materials for legs, body, fingers and head, and to tell left/right/middle areas, it took me to run the script 8 times in total changing custom object and bone selection each time. I also scaled the bones in the body to better shape the character.

In the armature at the right, I used same material for all meshes and I ran the script twice, first to generate cylinders and the to generate some spheres. Cylinders I scaled them in X, and Z to make them thinner. For rendering I used an EdgeSplit and Subsurf modifier that lately I copy to all other objects.

Special thanks to *Claudio “CJD” Dobniewski* and *Campbell Barton* for their advice and coding help !

This entry was posted on Sunday, July 1st, 2007 at 3:50 pm and is filed under [Blender](#), [Python](#). You can follow any responses to this entry through the [RSS 2.0](#) feed. You can [leave a response](#), or [trackback](#) from your own site.

4 Responses to “Modeling Armatures with Python”

1. [DaveG](#) Says:

[April 11th, 2008 at 3:26 am](#)

Do you really think this is new thing? Your blog is really good to me, I read it to get useful info, but sometimes I'm bored to tears.

2. [malefico](#) Says:

[April 11th, 2008 at 9:00 am](#)

Actually, this post is quite old, maybe you should check dates before posting comments... 😊

3. [kursad](#) Says:

[November 10th, 2008 at 5:27 am](#)

Hi

this is a great script. Are you thinking to expand it at all? This can be great for making quick animation setups, or create objects, loving it

4. [Rocco](#) Says:

[October 13th, 2009 at 8:57 pm](#)

I just found this site. I have not tried it yet so i thought i should ask first i wanted to make 3d characters that will move in the blender game engine but NO pre-existing animation. the movements wil depend what's in front of the characters or if a predator comes into the scene, etc. of course i will need AI as well, but for now . i will try it Just need to deform the bones the way i want to create my project

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