Making first person and third person weapon models work

NiTrOuSoXiDe's tutorial on how to make first person and third person perspective models work.

This tutorial assumes that:

- The gun model is finished completely
- You are using another gun's animations for your new gun. Totally new animations opens a whole new dimension of things to do.
- You have basic knowledge of 3D Studio Max
- There are no .JMS files in your data\weapons\newweaponname\models and data\weapons\newweaponname\fp\models folders.
- You have basic knowledge of Guerilla
- You already have a working new level

Steps:

1. Open the gun model up in 3D Studio Max.

2. Open up the .gbxmodel tag of the original weapon who's animations you are using in Guerilla.

3. Scroll down to the 'nodes' section. You will find a pulldown menu. Copy down the names of all the nodes you see on the list.

4. Go to 3D Studio, and with the model of your gun open, make a few small boxes, just as many boxes as the number of names you copied down.

5. Rename each of these boxes to match the names you copied down. If you have already made a 'frame' box in the past, and linked your gun to it, delete that box now.

6. Place these boxes in/on/around the gun as their name suggests EXCEPT for frame gun, which goes directly in the center of the gun.

7. Select all of the boxes EXCEPT for 'frame gun'. Click the 'select and link' button, then lick the 'select by name' button. When the box comes up, highlight 'frame gun' in the list and click 'link'.

8. Save the Max file as 'newweaponnameFP', and then save AGAIN as 'newweaponnameTP'. Export this scene to a .JMS into your data\weapons\newweaponname\fp\models and data\weapons\newweaponname\models folders.

9. Create a new folder in your data\weapons\newweaponname directory named 'physics'.

10. Go back into 3D Studio Max, and create a new box that is approximately the exact size of your gun (I reccomend making a box that goes directly over your gun, so when you finish making the box, the gun is completely enclosed in the new box).

11. Click 'select by name' and select all the components of your gun (not the frame boxes), and unlink them from the frame gun.

12. Select the new box and give it a single material, named 'metal' (doesn't have to be a texture).

13. Select everything EXCEPT for 'frame gun'.

14. Again, link everything to frame gun, as we did before.

15. Save this Max file as 'newweaponnameCOLLISION'. Export to .JMS into your data\weapons\newweaponname\physics folder.

16. Open a command prompt. Make it point to your Halo directory by entering (by default) the following:

'cd \Program Files\Microsoft Games\Halo Custom Edition'

17. The prompt will now point to your Halo directory. We will now enter the following:
```
tool.exe model data\weapons\newweaponname\fp
```

18. You will see Tool do some stuff, and if your model is satisfactory (it may not be) it will compile. You may be prompted to select a shader. Select shader_model (2), and then compile the model again. If you see no errors, proceed to the next step. If you get errors, go back and fix the model before you continue.

If that compiles correctly, enter the following:
```
tool.exe model data\weapons\newweaponname
```

Same thing applies as the previous compile.

19. Enter the following:
```
tool.exe collision-geometry data\weapons\newweaponname
```

20. Tool should now do some stuff, and if no errors, proceed.

21. In Guerilla, go to file\open and navigate to your tags\weapons\newweaponname directory. In here you will find two files named 'newweaponname.gbxmodel' and 'newweaponname.collision_geometry'. Open both of the files. Also, in your tags\weapons\newweaponname\fp directory, there should be an fp.gbxmodel tag. Open this too.

22. In the newweaponname.collision_geometry tag, scroll down until you see 'materials'. You should see a pull down menu. Select metal (thick). In newweaponname.gbxmodel, scroll to the bottom and open the shader_model for each material. Make sure there are no fields in RED; if there are this means you must point them to the right places.

23. Open the newweaponname.weapon tag, and in the model field, navigate to the newweaponname.gbxmodel. In the collision geometry field, navigate to newweaponname.collision_geometry.

24. Scroll down to the 'interface' section. In the first-person model field, navigate to the fp.gbxmodel.

25. Click on file\New. Select item_collections from the list.

26. Fill in the according information for your new weapon. Save this file to the tags\item_collections\single weapons directory.

27. Open the scenario tag for your new level. Add your new weapon to the 'starting equipment' section. Also, add this weapon to the 'weapons list' in the globals.globals tag.

27. Click file\Save all.

28. In the command prompt, enter the following:
```
tool.exe build-cache-file levels\test\newlevelname\newlevelname
```

29. Your level should compile with no errors.

30. Test your level.

Now, when you pick up your gun, unless you got amazingly lucky, it's not going to be placed in his hands right. In this case, you need to move around the 'frame gun' in the respective scene (FP or TP) the model of the actual gun in 3DS accordingly, until you get it right. You will have to repeat a few steps, but you'll understand where it's going once you've gone through them once. Don't get frustrated if this takes long. It took me an accumulated total of 6 hours to get the Battle Rifle correctly placed in his hands at first.

Once you get it working right, the results are mighty pleasing =)

- NiTrOuSoXiDe