Segmented Animation - A How-to Guide

First you must make a model. And before you start, you need to think of the following:

1. **How do you want it to look?**
2. **How do you want it to move?**
3. **What sort of attacks will it have?**
4. **How will it move?**
5. **How will it die?**

Now, go research on the web and come up with some photo's, or sit down and draw the creature, front view, side view, back, view, overhead view.

Now you are ready to model.

Animation in Morrowind is hard. Yup very hard. Only primitive animation can be used. Morrowind does not support:

1: Vertex movement
2: Skin

So basically all you will be able to do is rotate and move. I'm unsure if scale works, haven't tried it yet. I also haven't gotten modifiers to work, like melt.

Now you need to figure out what parts of your model are going to have "movement". Any part (like a leg part, or a neck, or tail) will have to be segmented into meshes. So lets say you want to make a leg. You'd want to make the thigh. Then the Calf. Both seperate entities. You want to line up the pivot points so that when you rotate the mesh, it moves properly. So for a leg, you'd want the thighs pivot to be located at the top end. It's important to have the meshes overlap inside each other if you are doing a organic model. That way it "appears" to be a whole leg once textured, but will still be moveable and animatable.

Once it's modeled you really should texture it.

Ok so. You model your creature, you place the pivot points properly. Now what? Well you need to LINK everything. Pick the one thing in the mesh that has the least amount of movement (like the body). Name that peice Main. Now you want to link each thing till it all is linked to the MAIN creature piece.

So for a one leg, body and head creature. We'd:

Link the foot to the calf. Link the calf to the thigh, link the thigh to the Main mesh.
Link the hand to the forearm. Link the forearm to the bicep. Link the bicep to the Main mesh.
Link the head to the neck. Link the neck to the Main mesh.
Get the idea?

What does linking do? Well.... it helps the mesh to move in a realistic manner. Once linked

if you move the bicep, the forearm and hand will follow with it. Make sense? Basically the Linking is your bones.

Ok. So now you are all pivoted, and linked. And your model is looking good. You've named the body (or whatever mesh you decided to make as the "Main") Main. Now we need to set a point under the mesh. Just stick it under the mesh, and rename the point Root Bone.

Now click on your "main" mesh. And link it to the Root Bone.

Now when you move the root bone, the entire model should follow with it. If it doesn't you linked it wrong.

Now that we have that done we need a bounding box. So draw a Box primitive around your model. Anything INSIDE the box cannot be "passed through" in Morrowind. Name the Box Bounding Box. Then you can hide the bounding box in the perspective view port, so it's out of the way.

Alright then. We are almost ready to animate! YAY! Hehe
Do a quick once over on your model. Make dern sure everything is linked and you have all the stuff set up for it. (Bounding box, Root Bone, Main mesh)

Okies. Lets begin. (Do NOT forget to save your work every 15 minutes, and use lots of different slots. Animating is a pain in the perverbial arse)

Open up Track view. On the left hand upper side is a box you can type in. Just type the name of your model.

On the right hand side is a field with all sorts of info in it. Under "objects" we want to find Root Bone. Make sure the name "Root Bone" is highlightd (meaning you have it selected) Then click on the "add note track" button at the top. Now we have a note track ready to go for our model. So what is a "note track" Lady E? Well...a note track is like a race track. It a field where we can place "notes" that tell Morrowind where a given animation is located

Now I want you to minimize Max, and open up the TES editor. Load up the main Morrowind thing. Once it's loaded go to the creatures tab and open up the monster that most resembles what youa re trying to make. Click on the animation button at the bottom. Now you should see a list of all the animations that monster has. We are going to need that list. Basically you need to animate each one of those listed aniamtions for your model.

Keep in mind I am not going to walk you though how to animate in Max. There are simply gobs of tutorials and books you can get on that.

Ok so, I've found that aniamting in this sequence is the easiest:

Idle
Idle2
Idle3
Walkforward
Turnleft
Turnright
Attack1
Hit1
Knockdown
Knockout
Deathknockdown
Deathknockout
Death1

What I just typed above is the exact thing you need to place inside the notes as you animate. But ...heh we are getting ahead of ourselves..we haven't animated yet have we? :P

Ok. So. Lets do Idle. Idle is when the monster isn't doing anything. It's not walking, it's not running, it's just basically standing there going "dum de dum dum dum". So make an Idle.

Now you want to open track view back up and go to the note track we made, under the Root Bone. Click on the "add note" button at the top, and click on the track. Right click on the note we just placed. In the number field tell it what keyframe your idle animation starts on, which in this case is probably 0. In the field under that you want to type in this....exactly this:
Idle: Start

Notice how I place a SPACE between the : and the S. This is VERY important!!! Never miss that space! Morrowind will not be able to read your animation notes if you leave it out! Now make another note on the note track. Right click it and place the Idle end keyframe number in the field. Then under it place: Idle: Stop

This is how all the animation notes are set up. You have 2 notes for each "animation track a start note and an end note.

Ok, so. Go do all the animations and set the notes accordinly. Once you are done, and everything is right, export it with the TES official exporter. Make sure you also have copies of your textures in your Morrowind textures directory.

Well so there you have it. That's how you animate for Morrowind.

-Lady E