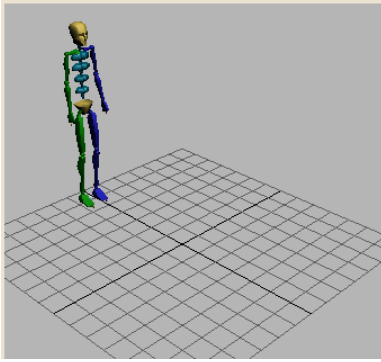
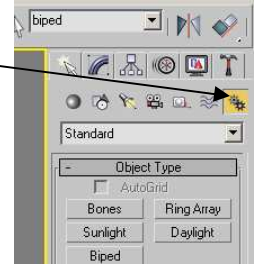


Make a Biped Walk with 3d Studio Max



In this lesson, using automatically created motion as the basis, you'll animate a biped walking with strange a step.




1. Maximize the Perspective viewport by clicking on it and pressing **Alt+W**.
2. Drag a biped on your screen similar to what I have shown on the left.

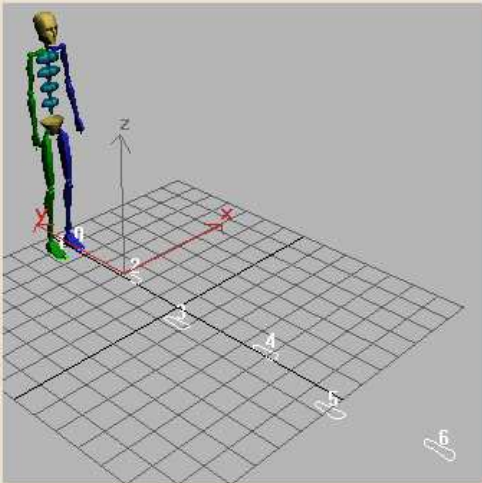


3. Click any part of the biped to select it. A white box outlines the selected body part.
4. Open the motion panel. The biped controls are displayed here.




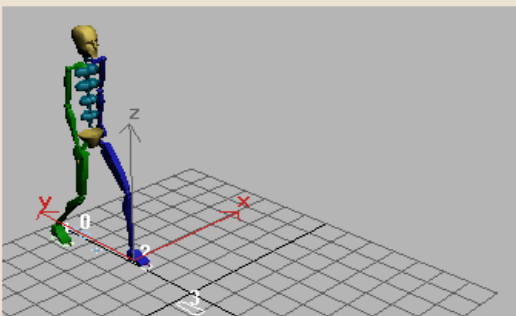
Create multiple footsteps:

1.  On the Motion panel, in the Biped rollout, turn on Footstep Mode.
 The Footstep mode button turns yellow, and the Footstep Creation and Footstep Operations rollouts are displayed.
2.  In the Footstep Creation rollout, click Create Multiple Footsteps.
The Create Multiple Footsteps: Walk dialog is displayed. Here you see many parameters for creating multiple footsteps. You'll only change the number of footsteps, leaving the other defaults as they are.
3. In the General group of the Create Multiple Footsteps: Walk dialog, change Number Of Footsteps to **8**, and then click OK.
Footprints are displayed in white in the viewport. These are inactive footsteps. They do not yet control any animation for the biped. If you press the Play Animation button, the biped won't move.



Inactive footsteps

4.  In the Footstep Operations rollout, click Create Keys For Inactive Footsteps.
The footsteps are activated. Animation keys are created for the biped.
5. Play the animation.
The biped walks.



Adding Motion to a Walking Biped

1. You will have to turn off footsteps before we will be able to move other body parts in your animation (the button will no longer be yellow)



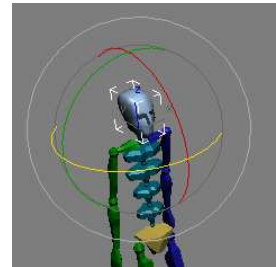
2. Click on your perspective screen to clear off your frames timeline at the bottom.
3. Click on the AUTOKEY button at the bottom of your screen.

4. Move the frames slide bar ahead to about frame 40.



5. Click on the rotation button from the top toolbar and then click on your bipeds head.

6. Several different colour circles should appear around your bipeds head. These all indicate a direction that we can swivel his head. (up, down side to side, left to right)



7. Lets click on the red circle to move his head up.
8. Right click on the frames slide bar and click OK to create a keyframe here.

9. Play your animation to see if your character lifts his head up at frame 40.

10. Stop your animation and add more head movements to the rest by moving your frame sidebar ahead and following the above steps.

11. If you feel really brave try animating other body parts!

TURN AUTO KEY OFF WHEN DONE

Adding Snow to the Scene

Let's give this poor guy a reason for his erratic head twitches by adding snow to the scene.

1. Click on create from the top menu, particles, snow.
2. Drag the snow box over your character and footsteps. Do it as big as possible.
3. Choose the select and move tool and try and move your snow box well above your character and steps.



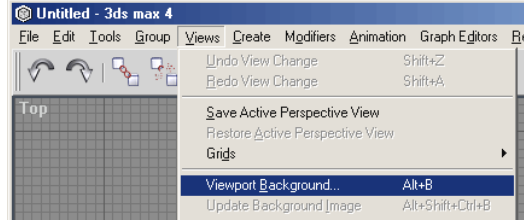
4. Test your movie.

Setting picture as a background for adding visual effects with 3D-Studio MAX

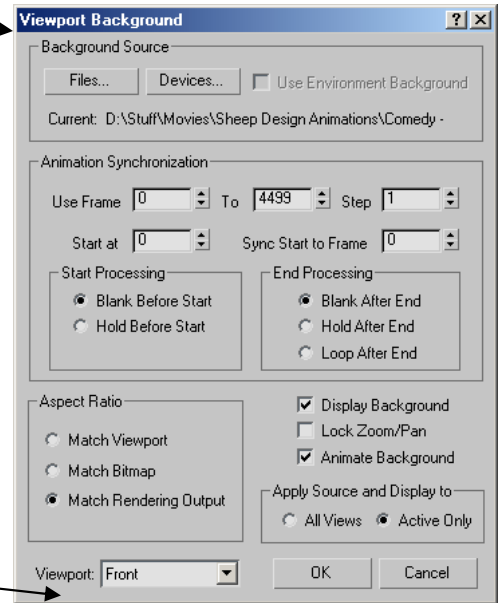
You can easily add pictures or video (avi) as your background in 3d Max and still animate on top off it. It's a great way to add some visual effects. The following steps explain how to set a picture as background image for the viewports and as environment map, so that it can be rendered.

You can use almost any picture format you choose. For this tutorial I have placed an crosswalk.jpg in the 3d folder in the handout.

1. Click on "Views" and then on "Viewport Background..."



2. This dialog will appear:
3. Click file to locate the picture from the handout folder
4. Please make sure, that you enable the checkboxes "Display Background" and "Animate Background". Otherwise the image will not be displayed and not be updated to the active frame when you scroll through the animation. You should also set the aspect ratio to "Match Rendering Output", because we want the picture to be displayed the way it will be displayed in rendered mode.

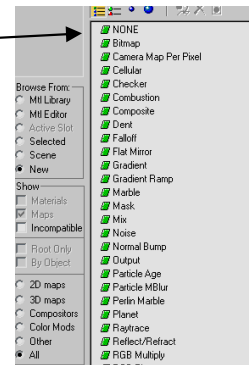


You are also able to set the viewport, the video will be displayed in. For our purpose, we should select "perspective".

5. If you followed my instructions correctly, you should now see the picture behind your Biped. This is good but the animation is not renderable, so I'm going to explain how to setup the environment map.
6. Click the render option from the menu bar at the top. Choose environment, none, then double click on Bitmap.
7. Locate your picture. In this case, crosswalk from the handout folder.

The render preview window should now displays the picture

You may need to adjust the biped and his steps so it lines up nicely with the picture. Try these tools in the bottom left of the screen.



Render your video when you are happy with the look. Render menu, render, click active time segment, choose AVi as file type, and click on file to give it a name and saving location.