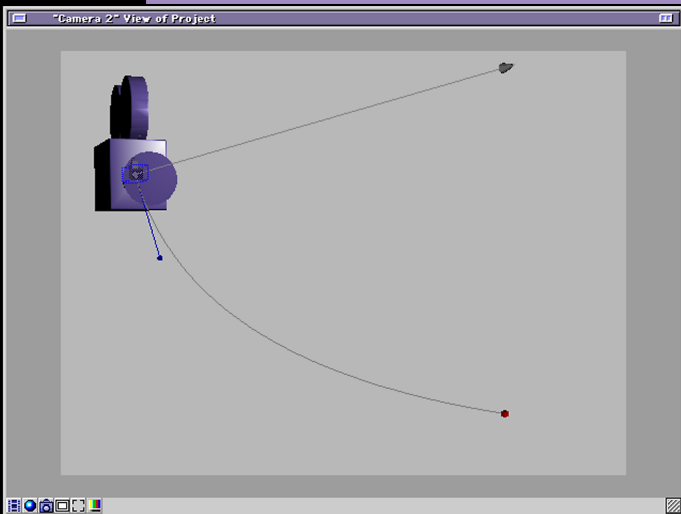


1

Camera Animation and Rendering

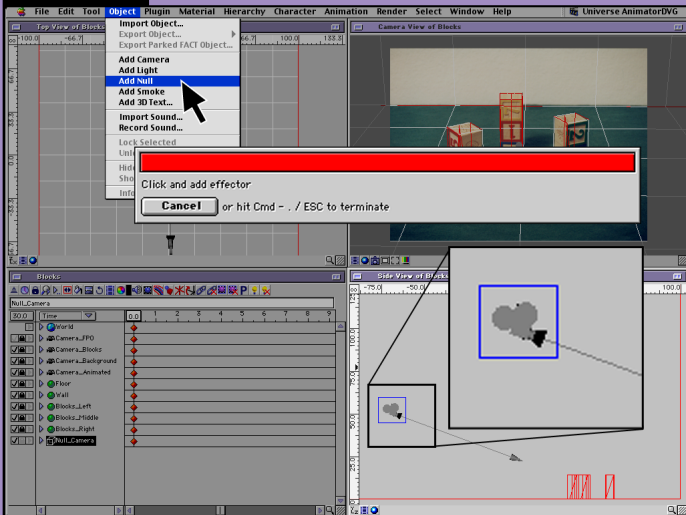


Finally we can animate a push-in into our scene. This is where we will see the effects of parallax caused by the integration of 3D into our 2D images. We will animate Camera_Animated. To help us, we will link our camera to a null so that we will not have to animate the reference.



Overview

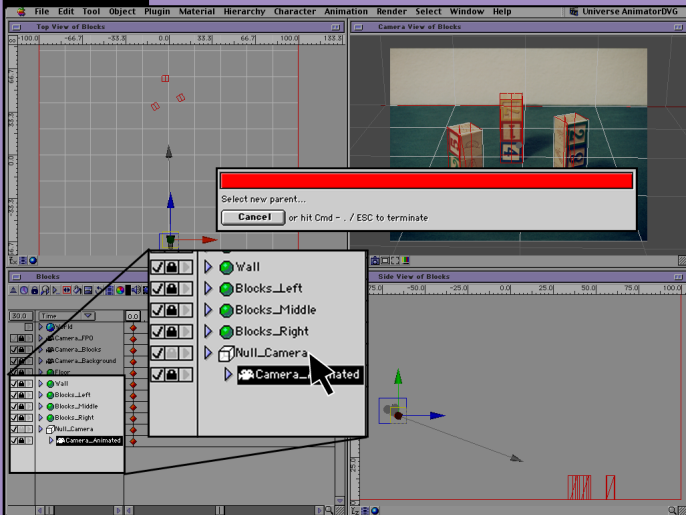




Create a null by going to OBJECTS> ADD NULL. Drag a square over your camera in the Side View window to create your null. Rename the null to "Null_Camera".

Note: Ideally, our null should coincide with our camera. You may need to adjust it slightly in the Top View window. Also, the size of the null is not too critical, but it may be distracting later if it's too big. It is not a bad idea to zoom in close to the camera when creating your null.





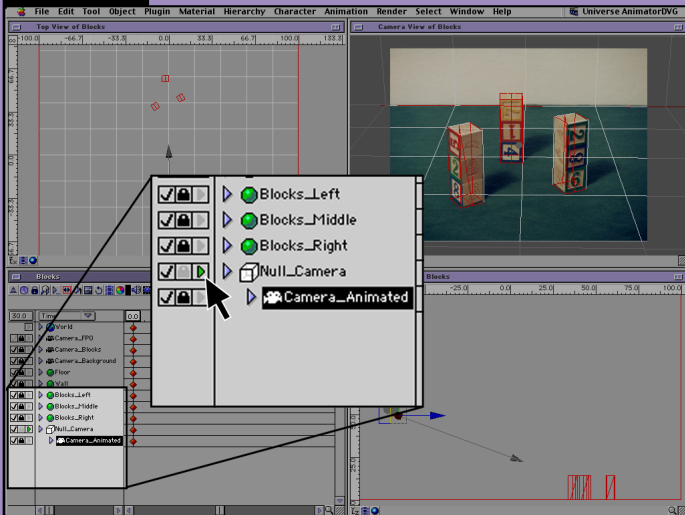
Next, we will link **Camera_Animated** to **Null_Camera**. In the Project window, highlight **Camera_Animated**.

[CLK] the "Link to Parent" button at the top of the Project window, then **[CLK]** on **Null_camera**. The camera should now appear under the null, indicating that it has been successfully parented to it.



4

Activating Null_Camera for Animation

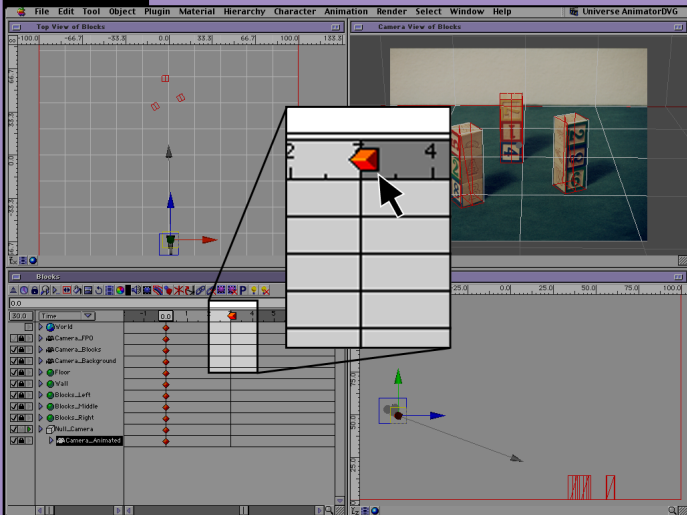


Now that Camera_Animated is linked to Null_Camera, we can apply animation to our null. Before we can do that, we will need to activate the null so that it can be animated. **[CLK]** on the green arrow to the left of the null to activate the animation.



5

Setting the Animation Length

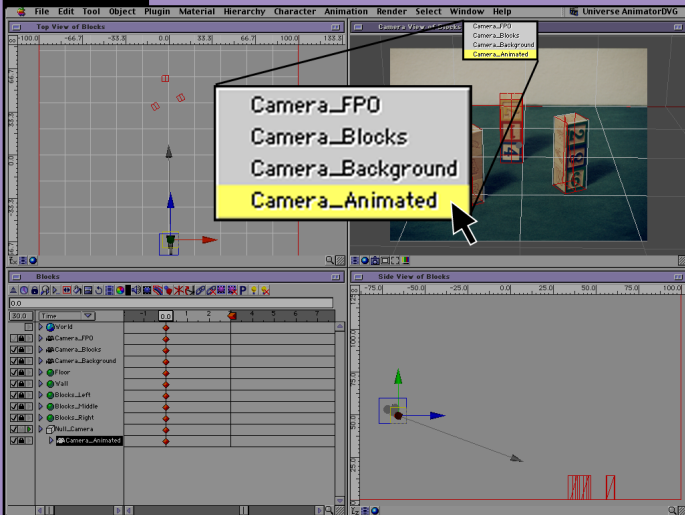


The total length of our animation will be three seconds. Move the end of the animation length to the 3 second mark.



6

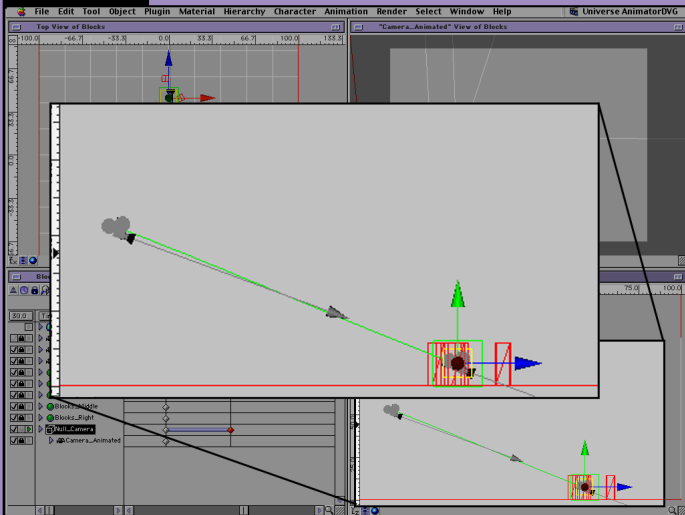
Changing the Camera View Window



Before we begin animating, we will want to change our Camera View window to display from Camera_Animated. [**CTRL+CLK/RT-CLK**] the title bar of the Camera View window and select Camera_Animated from the pop-up list. Now we can see what our animated camera sees as we animate it.

Note: Macintosh keyboard commands are indicated in red. PC keyboard commands are indicated in blue.



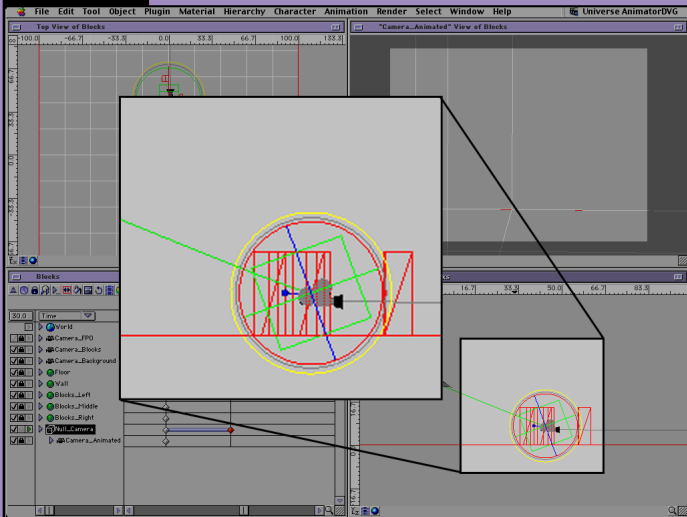


In the Project window, set the Time Slider to 3 seconds.

[CLK] Null_Camera to select it.

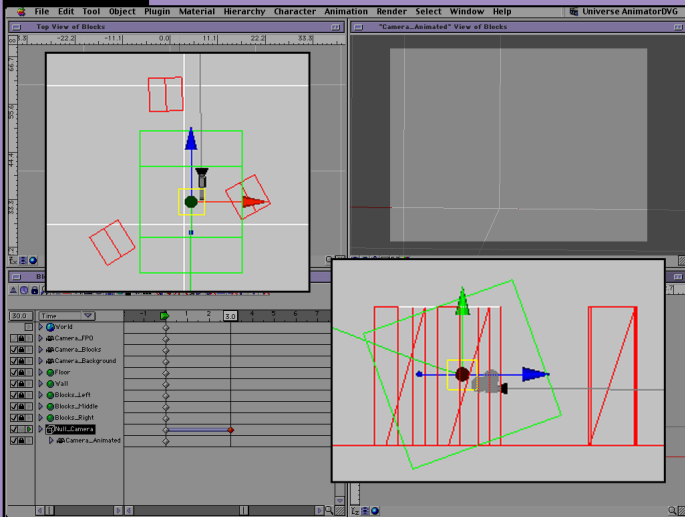
In the Side View window, move the null forward and down towards the blocks. Monitor the Camera View window as you animate. Position the null so that the camera actually sits roughly in between the left and right blocks.





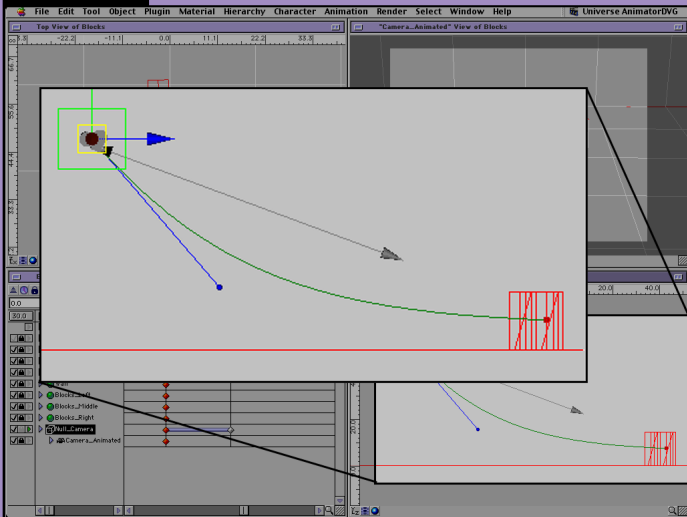
Looking at the Side View window, notice that our camera is pointing at the ground. We'll fix this by rotating our null in the X-axis so that the camera is parallel with the Floor plane. Make sure to do this at the 3 second mark.





Once the camera is rotated so that it is level, we'll perform a few tweaks to get it positioned just right. In the Side View window, make sure the camera is positioned about mid-height of the blocks. In the Top View window, make sure the camera is positioned off to the right of the middle blocks. In the Camera View window, you should not see any of the blocks.

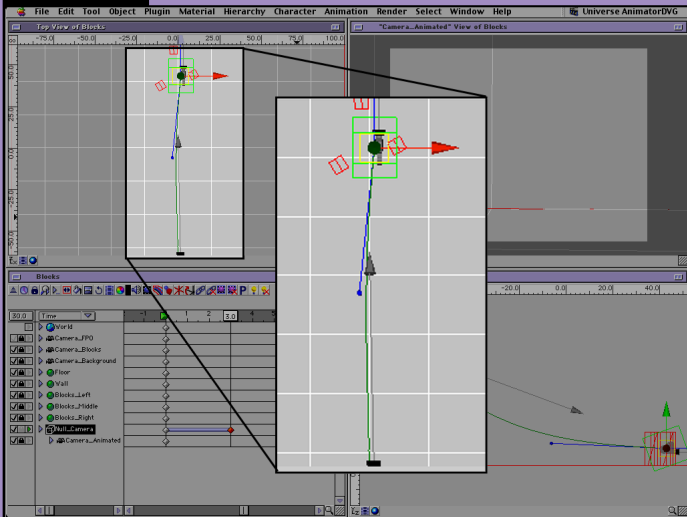




In the Side View window, you will notice that the path of the null is a straight line. Smooth out the curve so that it matches the image above by **[CLK]**ing on the path and using the bezier handles to add a curve to the path.

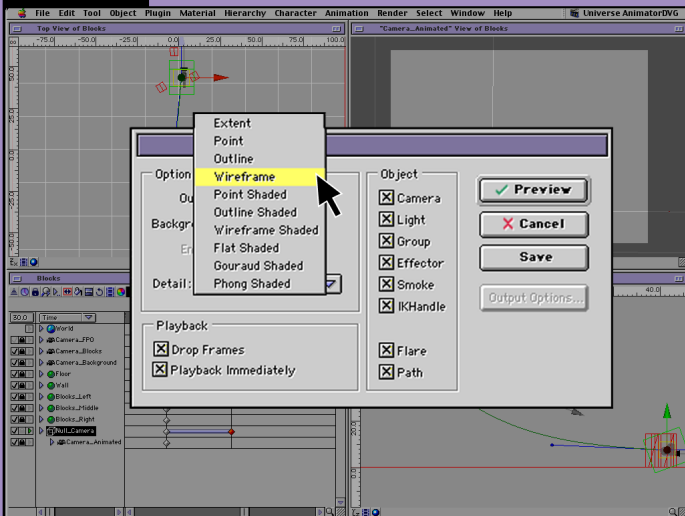
Note: You may need to **[CLK]** on the ends of the path to access the bezier handle which is associated with that point.





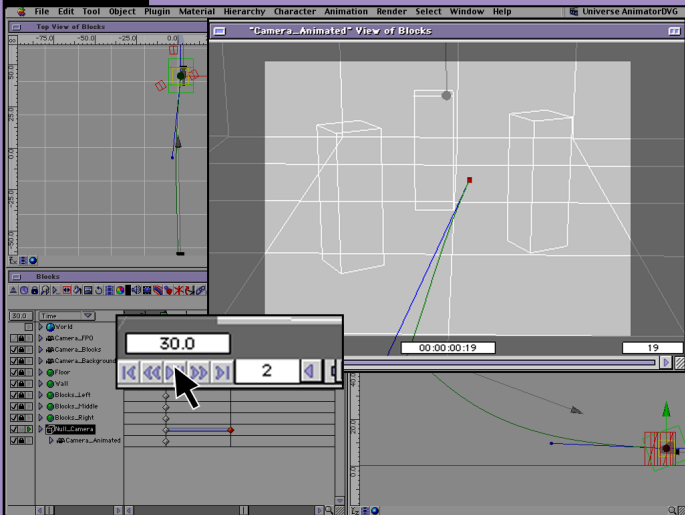
With the path smoothed out in the YZ plane, we'll take a look at how it looks in the XZ plane. Go to the Top View window. With our Time Slider at the 3 second mark, adjust the Bezier handle so that the path flows smoothly into the point. See the image above as an example.





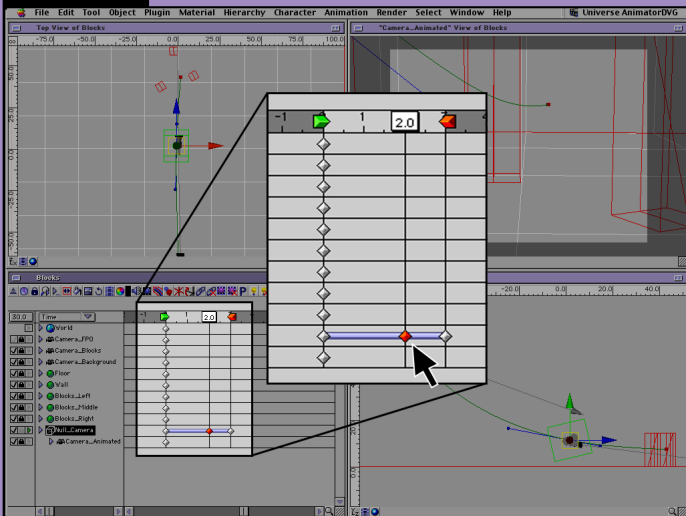
We will now check the progress of our animation. In the Camera View window, **[CTRL+CLK]** on the Preview button in the bottom left of the Camera View window. In the pop-up menu, make sure that “wireframe” is selected in the Options pane. **[CLK]** SAVE when finished.





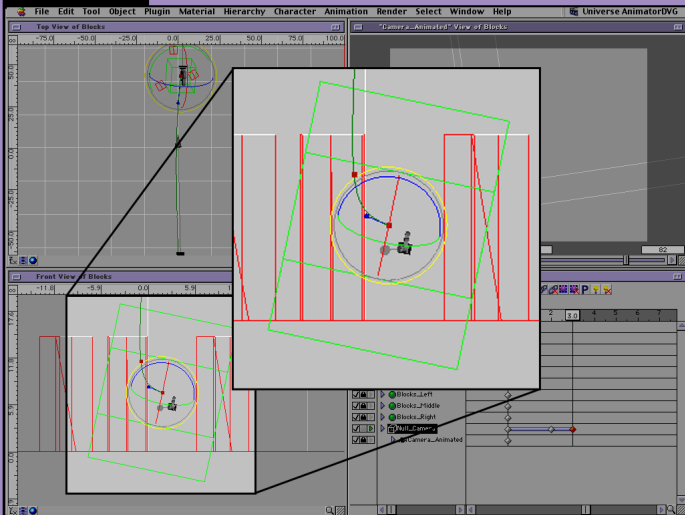
With that done, **[CLK]** the Preview button to see a wireframe preview of your animation. Make sure that the movement is smooth and that you don't see too much of the sides of the blocks. You can make tweaks to the motion path as you see fit. We may have to go back and fix the path again after we perform a test render.





We will animate a bank near the end of our camera move. In the Project Window, move the Time Slider to 2 seconds. With Null_Camera selected, hit **[CMD/CTRL+K]** to add a keyframe at that time.



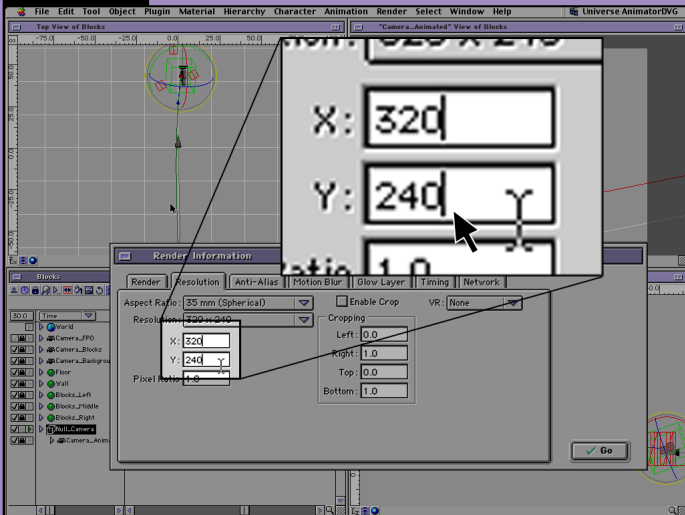


Next, move the Time Slider to 3 seconds.

In the Front View window, Rotate the Null_Camera slightly clockwise on its Z-axis.

[CLK] preview on the Camera View window to see how your animation looks. Make tweaks if necessary. Again, we won't know the exact results of our animation until we do a test render.

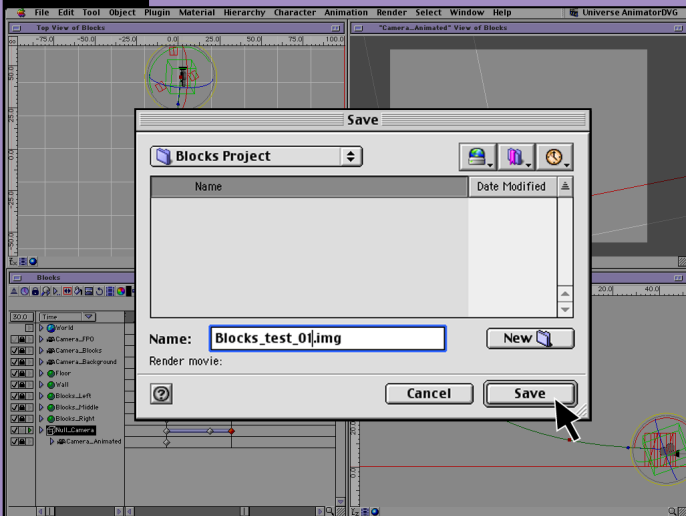




Now that we are happy with our preview animations, it's time to actually perform a test render to see how our camera maps are holding up. Hit **[CMD/CTRL+R]** to bring up the Render Info window. Change the size to 320x240 or some other 4:3 size smaller than the original 1024x768.

Note: Once we are happy with the test render, we can switch our rendering setting to a larger size.





Once you have the size of your render set, **[CLK]** GO to begin the test render. When prompted, give your render a name (such as: Blocks_test_01). Once finished, check to see if your camera move is too intense, which is indicated by the camera mapping effect breaking down. Things to look for are things like map stretching and obvious clues that the images are mapped onto basic geometry. Changing the camera push in slightly can usually fix a lot of problems by simply angling the camera away from these areas so that they don't show up at all.

