

Sequence of Numbered Textures © Matthew Bennett

Frequently, I have seen questions on how to get an animated sequence of textures to work in TS4. I use this heavily since I only render out an animation to still frames. That way if one of my kids or my wife wants to use the computer I can stop TS from rendering, and only loose the current frame. It also provides protection from loosing the entire avi file in the case of a power failure. Additionally, I will demonstrate how to perform a nice fade out/in to another scene using only TS.




Sequentially Numbered Frames

Step 1: Have an animation (or textures) rendered out to still frames. They need to be numbered sequentially or this will not work.

Step 2: Fire up TS, and draw a plane. Size the plane to X=3.84, Y=2.88. These settings make sure that the plane will be the same proportional size as a typical small perspective view. Rotate the plane 180 degrees in the Z rotation. For whatever reason, every texture I put on is always upside down.

The plane is now the same proportional size as a standard rendered frame and in orientated properly. Before texturing this one, save it so you can easily load up additional planes (more will be needed when I demonstrate how to do transisitions).

Step 3: Texturing the plane for animated textures is

the next step. Be sure to be at frame zero. Load up the first sequenced file to apply to the plane. Be sure to have the 'Anim' box checked. Use the 'paint object' button  to paint the object with the first frame. While still at frame zero, use the 'paint over existing material' button  to repaint the first frame on the plane. Key in the last frame number in the 'Current Frame' field. Load the last frame (by right clicking on the 'Color' sphere). This time it is only necessary to use the 'paint over exiting material' button  to paint the object with the final frame.

Note: be sure to have the ambient glow set fairly high so the texture looks good and bright. This needs to be done on the first texture as well, or you will end up with a dim to bright fade.

Step 4: The last step is to use a top view, and zoom in on the frame until it just fills the window. Then render out to an avi file!

Transitions

For this example we will do a simple fade-in to an animation, fade-out and then back in to a different scene, and then finally fade-out. Before beginning, you will need two animation files rendered out to still frames (or use avi files, although I have not tried it).

Step 1: Load two of the planes you created in the above sample and place them side by side. Use the technique above to set them up with an animated sequence of frames for textures. Have both starting on frame zero, and going until each animation is done.

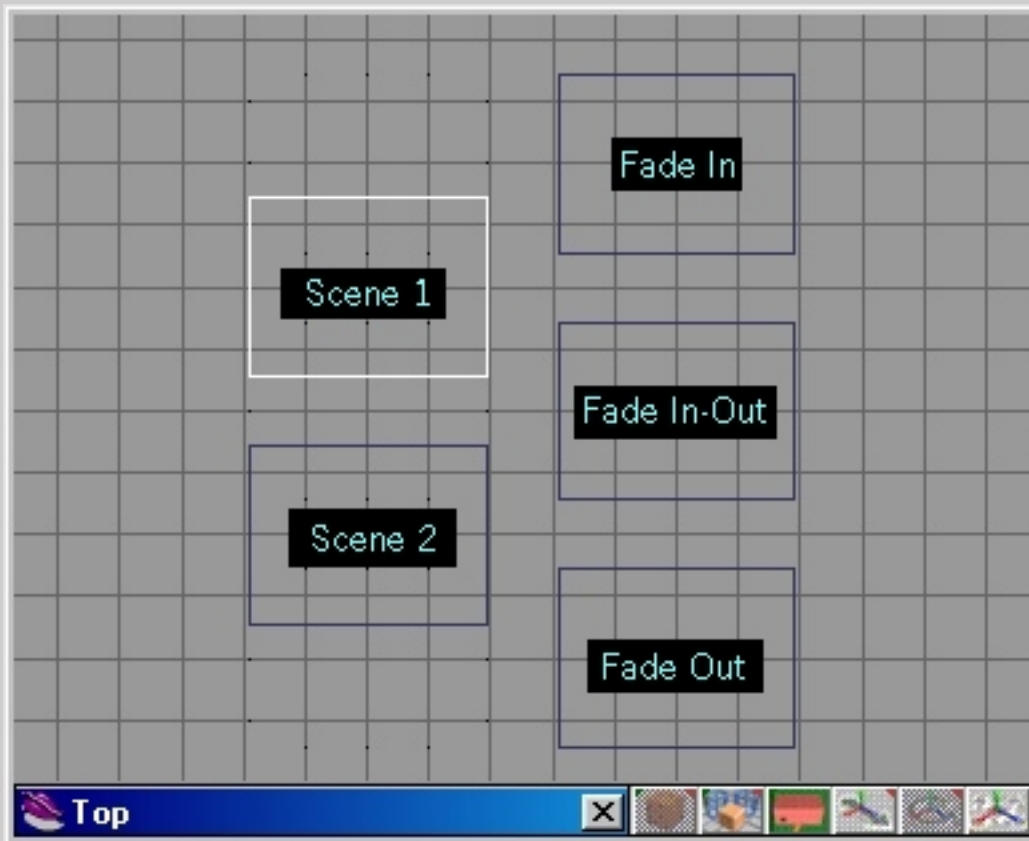
For simplicity, I will assume that both animations are 200 frames. Label each frame 'Scene 1', and 'Scene 2' respectively. (Taking a moment or two to plan this out on paper will save a lot of time and frustration.) I usually pause at this point to test render a few frames to ensure that the animated textures are working properly. Using the 'render current object' button at different frames is a quick way to make sure things are working.




Step 2: We are going to have a total of three transitions.

1. Fade in to Scene 1
2. Fade out of Scene 1
3. Fade in to Scene 2
4. Fade out of Scene 2

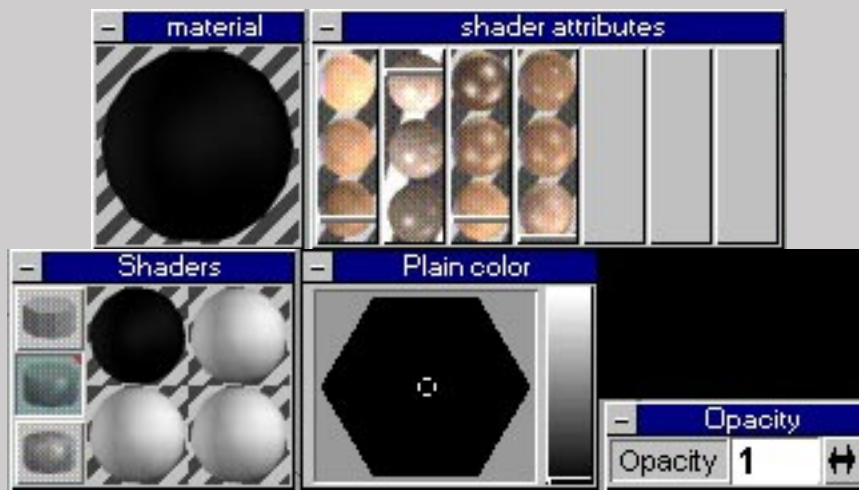
So you are saying "I see 4 listed." That's true; however the Fade out of Scene 1 and into Scene 2 is handled in one step. The fades I will use will be 30 frame fades, this of course can be changed to be slower or faster depending on your needs.

Load up 3 more of the planes, and set them to the sides of the others. I usually position them so the scenes are on the left, and the transitions are on the right as shown below. Label the top one 'Fade In', the middle one 'Fade In-Out' and the last one 'Fade Out'.

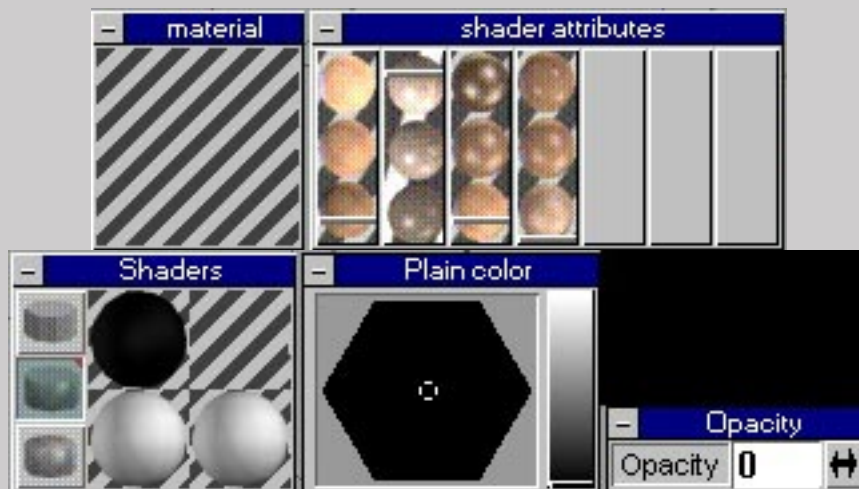


Step 3: Starting with the 'Fade In' plane and using the 'paint object' button , paint it black and using the 'plain transparency' option, set the opacity to 1. Then use the 'paint over existing material' button  to again paint the texture on the plane. Go to frame 30, change the opacity to 0, and again use the 'paint over existing material' button  to set the final texture. The settings I use are shown below. Again it is recommended to draw the object a few times on various frames to make sure things are set up properly.

Frame: 0 Color: Black Opacity: 1



Frame: 30 Color: Black Opacity: 0



Repeat this step on the Fade Out plane. Since this one needs to fade out, start with an opacity of 0, and then on frame 30 set it to 1.

For the Fade In-Out plane, set the first frame with an Opacity of 0, after 30 frames set it to 1, then after 30 more frames set it back to 0.

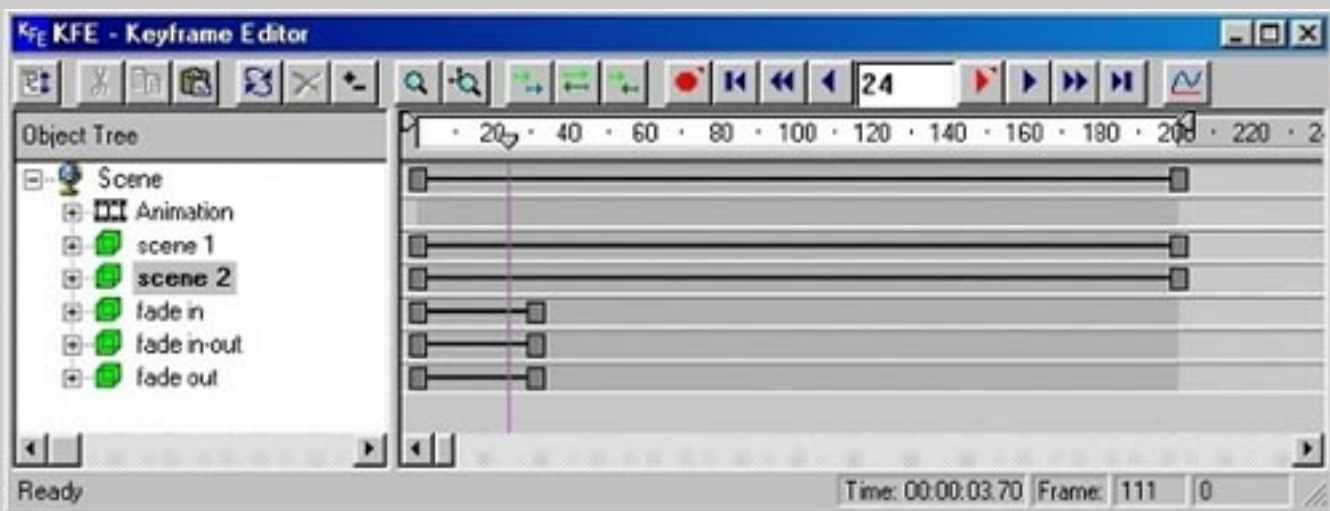
Step 4: The next step is to make the plane visible and invisible at certain points. Basically we only want them visible when they are playing a part in the animation. Start at frame 0 and make it invisible (right click the 'object' button, click the 'render options' button, X the

'Invisible' checkbox), then at frame 1, uncheck the 'Invisible' box, then move to frame 30, and again, check the 'Invisible' box. The frame then should initially (for 1 frame) be invisible, then become visible until frame 30 at which point it blinks out again. Once you have this one set up, do the same to the other two planes (Fade In-Out, and Fade Out).

Note: one quick way to do that is to expand the Key Frame Editor (KFE) so that you can see the individual key frames for the visible/invisible settings. Then use the mouse to highlight all the keyframes, hit the 'copy' button, then just select the one of the other plane objects and hit paste.

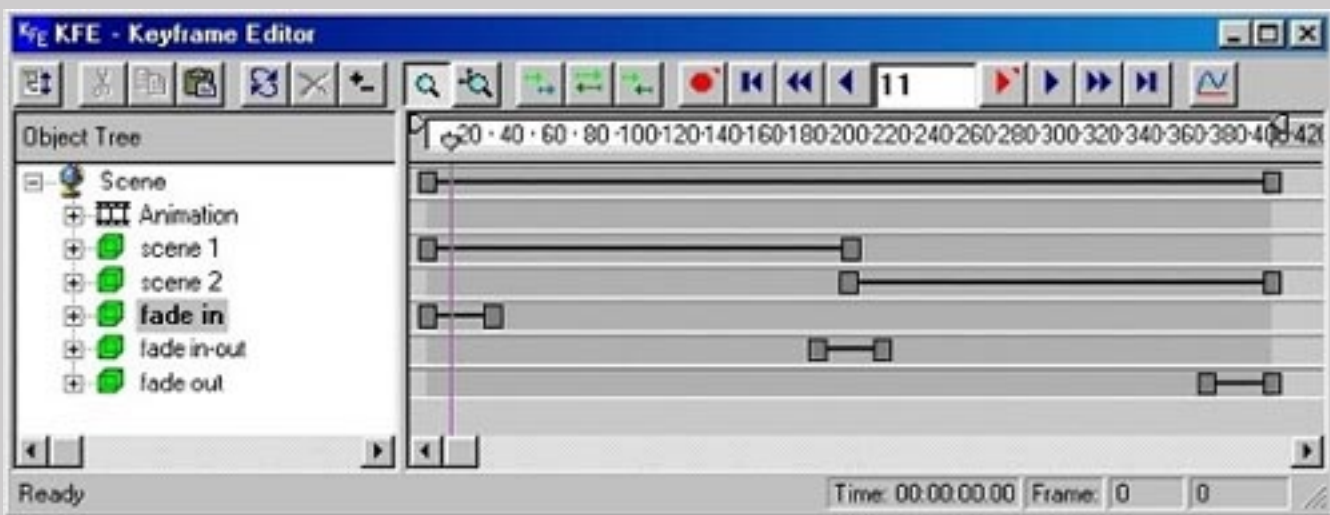
The Scene 1 and Scene 2 plane need similar treatment. The Scene 1 plane needs to be set to disappear on frame 200 (the length of the animation), while the Scene 2 plane needs to be invisible initially, then be visible for 200 frames. If there were more scenes, then the Scene 2 would need to be invisible at the end as well to make way for the next scene.

Step 5: Ok, so now there should be a bunch of planes that appear and disappear. Your KFE (Key Frame Editor) should look something like what is shown below.

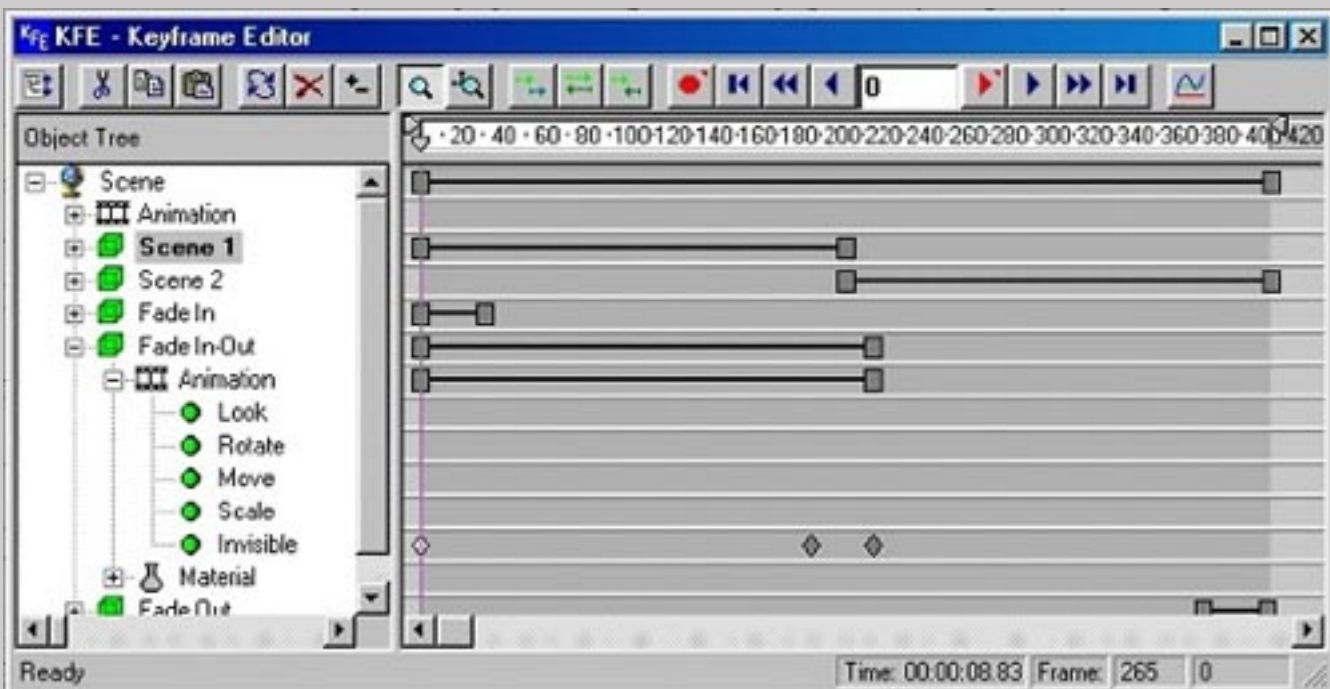


What needs to happen now is to organize the planes so that from a top view, you see one after the other. The Scene planes can be placed in exactly the same place, while the transition planes need to be just slightly over the scene planes. At frame 0 (BE SURE TO BE AT FRAME ZERO) move all the planes to the same position, and put the transition planes (Fade In, Fade In-Out, and Fade Out) at about .01 higher in the Z direction (if they are in the same place you will get bad results). You might be asking 'why was the positioning left to the end?' Basically it gets really confusing trying to figure out which plane is which, so placing them side-by-side in a logical order keeps things running smoothly.

Step 6: Fire up the KFE, and slide the plane animations into position. The beginning of Scene 2 should be just at the end of Scene 1, Fade In needs to be right at the start, Fade In-Out should straddle the end of Scene 1 and the beginning of Scene 2. Fade Out needs to end at the same time Scene 2 does. Your KFE should look similar to the one below.



Step 6 The last thing to do is to slide the keyframe that turns the planes invisible back to frame zero for each one. This ensures that each plane will be out of the way until it is told to be visible. The KFE below shows the keyframe for the Fade In-Out plane after it has been moved to frame zero. The keyframes for the transition planes could be set at frames needed instead of using the KFE to slide them around, this is just my preference. I think the visual picture before this final step is worth the effort.



Well that's all folks! Render out the animation to an avi file and watch your TS created smooth transitions. To see a sample of these in action, I received an honorable mention for an Alien Abduction animation in the November animation gallery on [Caligari's](#) web site.

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