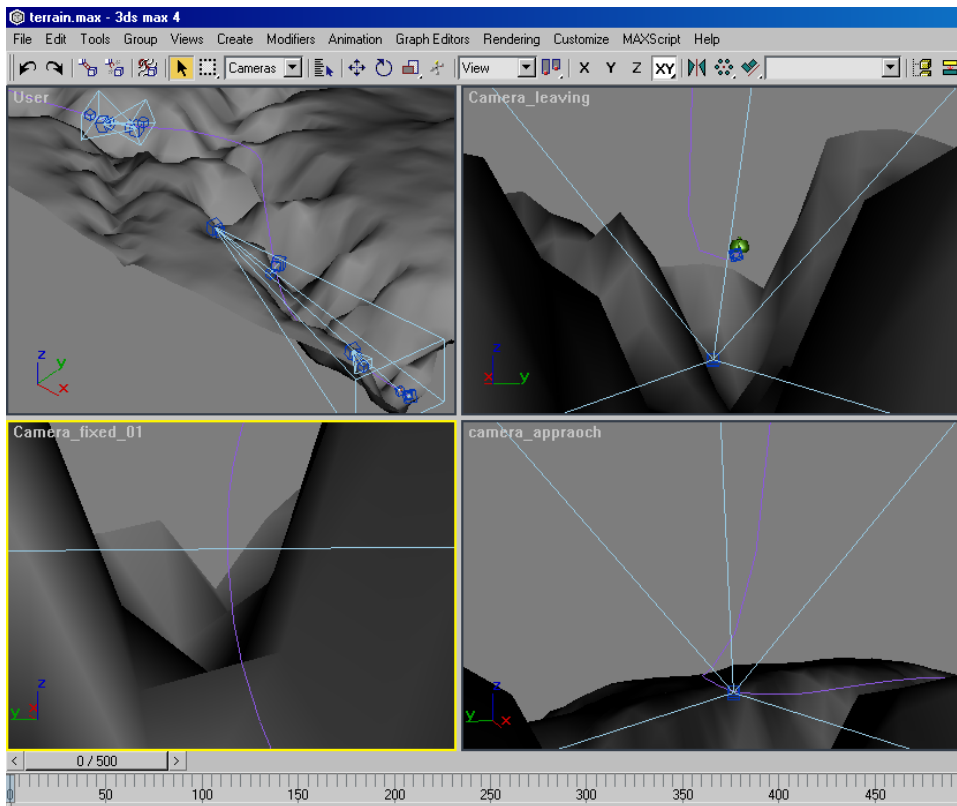
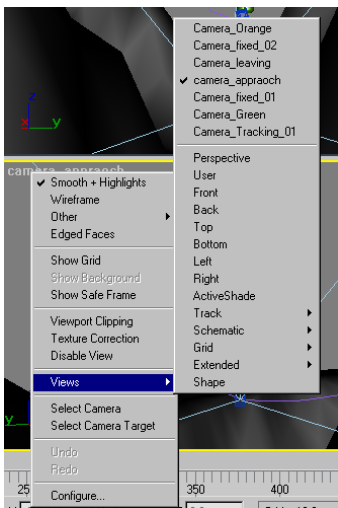


Cameras

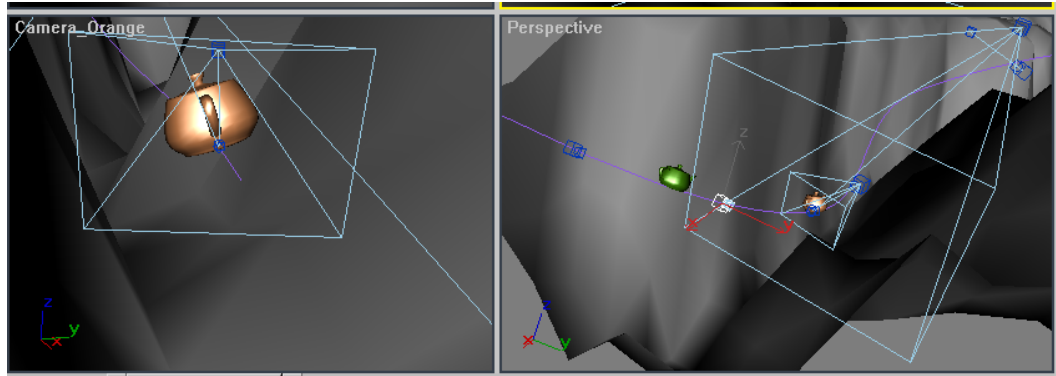


1. Open my file called **Terrain** found in the Lesson 6 folder. Drag the time slider back and forth and observe the motion in the cameras. In my scene there are a total of 7 cameras as shown below:

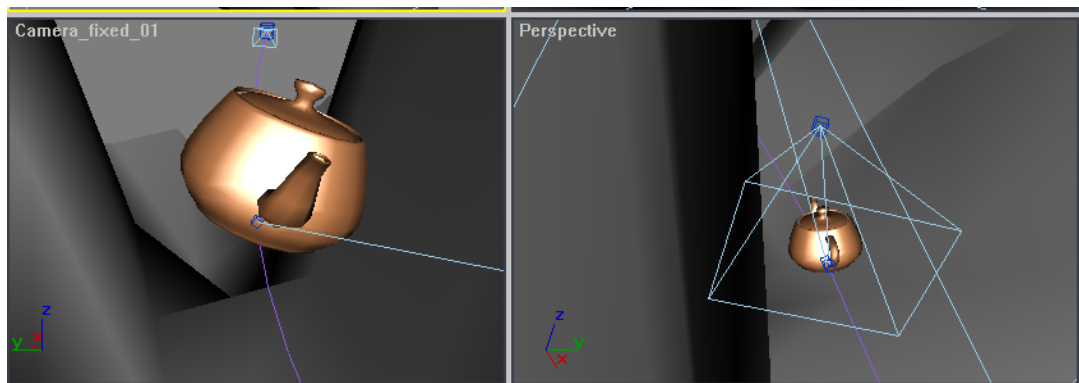


2. Change the viewports so that you can see how each type of camera is set up. There are 4 types of cameras shots:

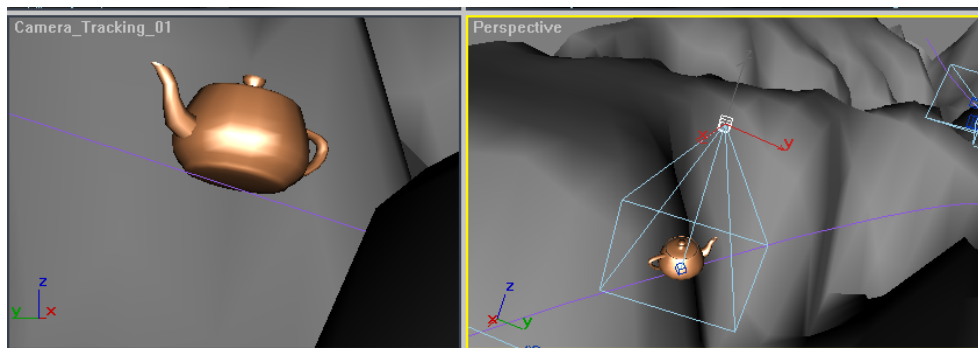
Type 1-Path Cameras: Camera_Orange and Green are free cameras which have been assigned to the path to follow the teapots



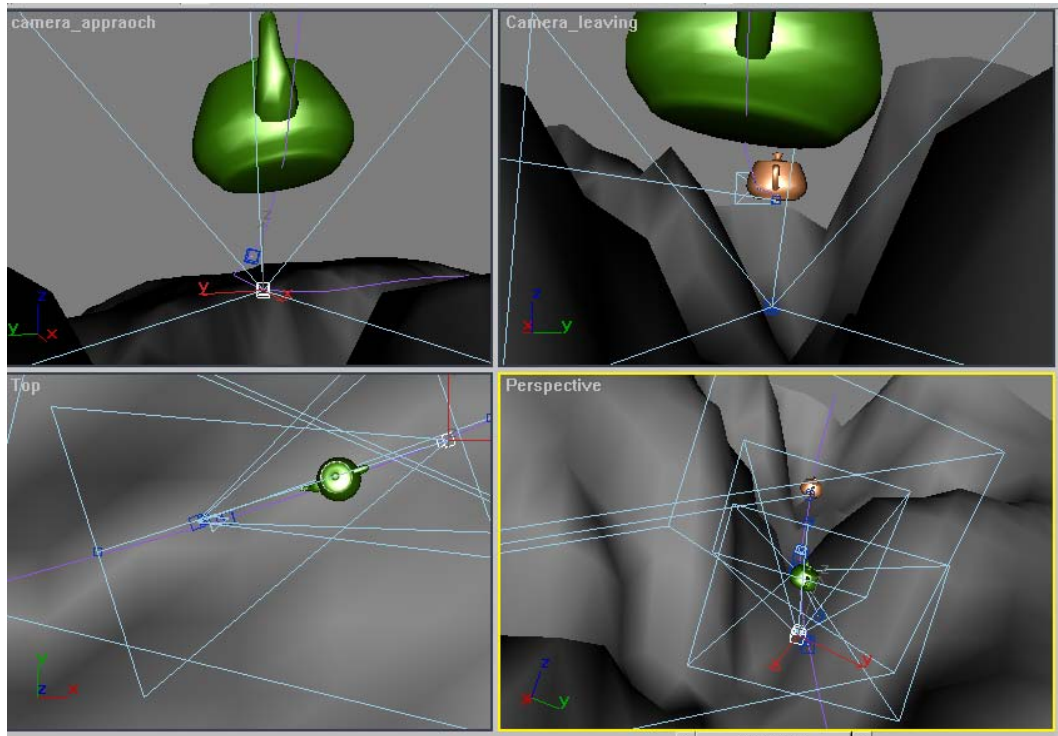
Type 2 – Fixed Cameras: Camera_fixed_01 and Camera_fixed_02 are Target cameras which are stationary (neither camera nor target are on the path) and capture the passing motion



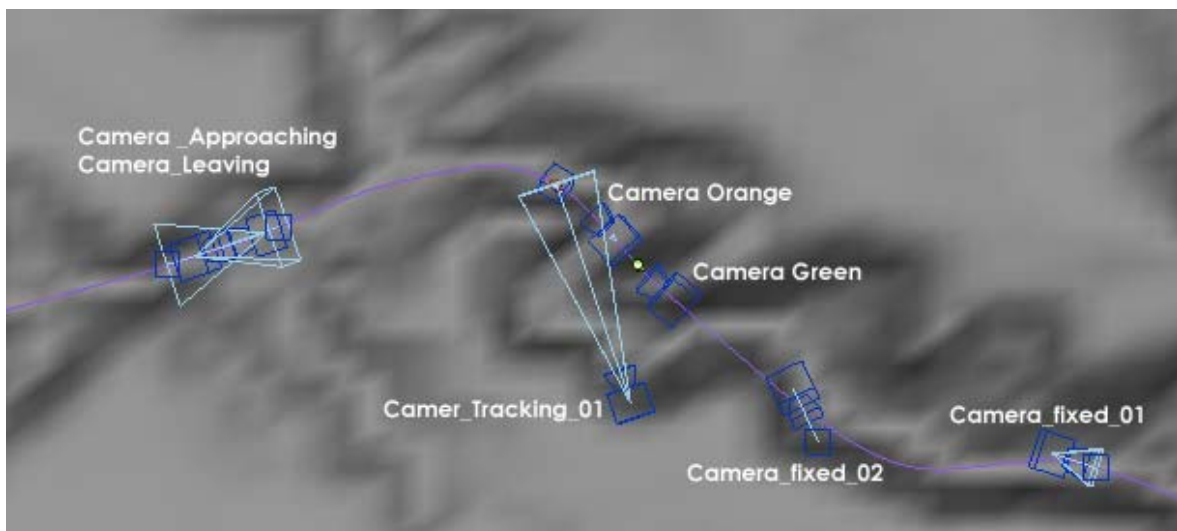
Type 3-Tracking Cameras: Camera_Tracking_01 is a target camera that has its target on the path at the same % Along the Path as one of the teapots. The camera itself is stationary but the target moves with the teapot giving the effect of a tracking camera



Type 4-In/Out Camera: Camera_Approaching and Camera_Leaving work together as a pair of target cameras (neither camera nor target is on the path) and these shots would be sequenced one after the next giving showing the teapots approaching and then leaving the scene

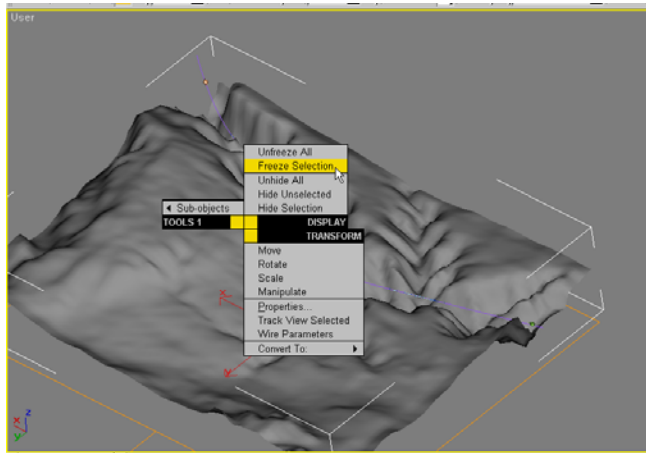


3. This top view shows all four camera types

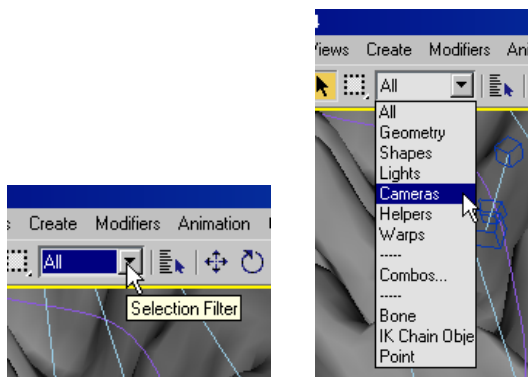


4. Our Goal for Lesson 6 is to set up these four types of cameras. Here are some guidelines for setting up camera shots:
 - a. Keep the shot length at 3 to 4 seconds (90 – 120 frames). More than 4 seconds will be too long. We are trying to create an action sequence. Shots longer than 3 or 4 seconds are boring!
 - b. Keep your object big in the viewport. If the object is too far away, we lose the power of the shot
 - c. Keep in mind how this shot will be sequenced with the one before it and after it

Before we begin creating cameras here are a few tricks that can save you a lot of headaches:



After all of your hard work editing the path, you may accidentally move either the terrain or the path. A good way to avoid this problem is by using the freeze command. Select the terrain, the right click and choose Freeze Selection. When frozen, you will not be able to select the terrain and accidentally move it. I would freeze the terrain and the path.



Another great tool is the selection filter. When cameras are selected as shown above, you can only select cameras and targets which makes the Select and Move process easier. **Don't forget to turn it off when you are finished, otherwise you will spend 20 minutes trying to figure out why you can't select any non-camera objects!!!**



By the time we are finished creating cameras we may have 10 - 15 in a scene, it will help if you name them rather than using the default name such as Camera 01, Camera 02. etc. With the camera selected, go to the modify panel and type in a new name as shown above

OK, Lets Create some Cameras!

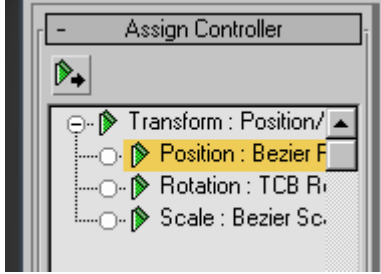
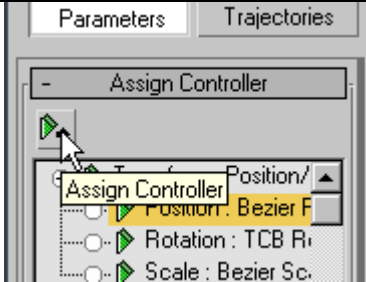
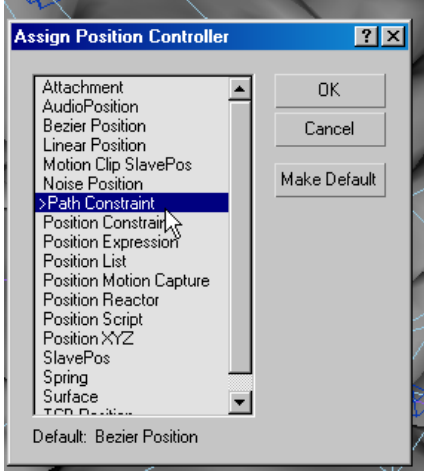
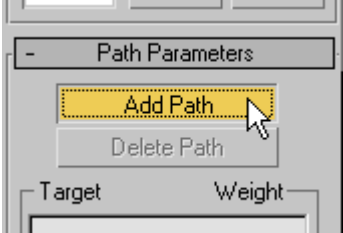
Camera Orange and Green

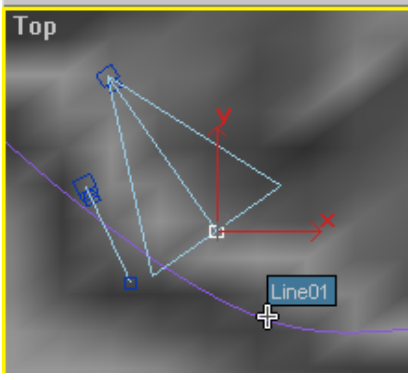
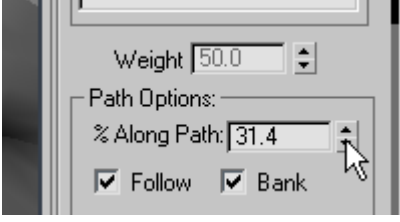
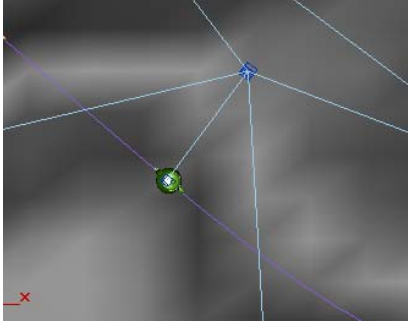
Camera Orange and Green are path type cameras, this type we set up in Lesson Five, go back to the Lesson five folder and look at file "2 Camera on Path" if you need a review

Camera_Tracking_01

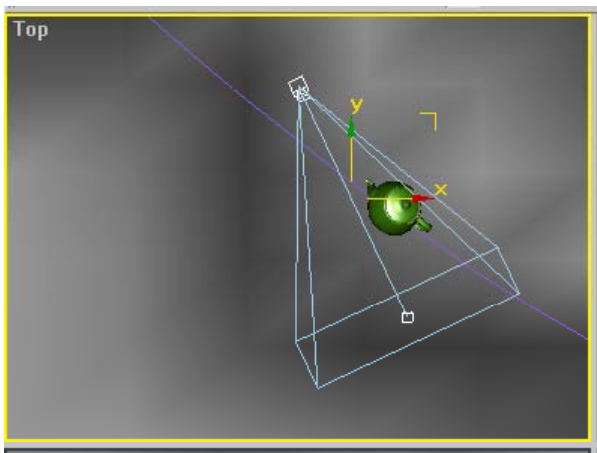
Lets start with a camera like Camera_Tracking_01. We will use a target camera for these.

<p>The image shows a top-down view of a scene. A camera target is positioned at the start of a blue path. The camera's orientation is indicated by a red and blue coordinate system.</p>	<p>Create a target camera in the top viewport</p>
<p>The image shows a software command panel. The 'Sub-Object' dropdown is set to 'Parameters'. The 'Assign Controller' rollout is expanded, showing a '+' sign and the text 'Assign Controller'. A mouse cursor is pointing at the '+' sign.</p>	<p>Make sure the target is selected and not the camera. Select motion in the command panel and then open the Assign controller rollout</p>

	<p>Select Position</p>
	<p>..... then the Assign Controller icon</p>
	<p>Then select Path Constraint and OK to close this box</p>
	<p>Then click on Add Path</p>

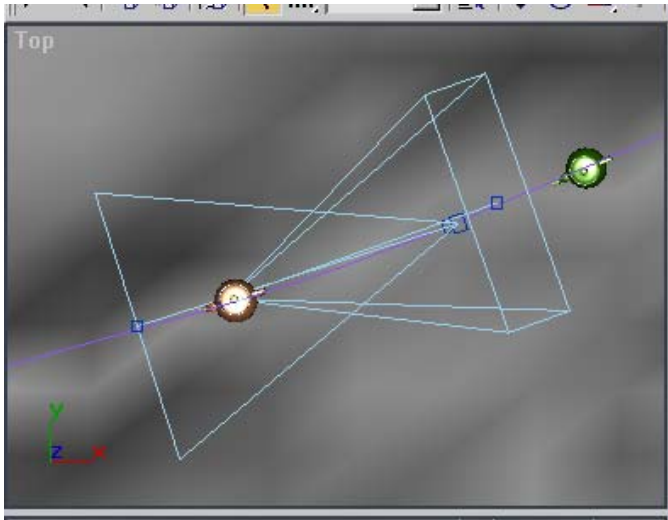
	<p>Select the path</p>
	<p>Adjust the % Along Path so that the target is on top of the object that you want to track. Also make sure that the Constant Velocity and Follow Path boxes are checked</p>
	<p>You should have something like this</p>

Camera_fixed_01



This one is easy; just create the target camera in the top view and then work in the top view and side view to position it correctly (neither the camera nor the target are on the path)

Camera_Approaching and Camera_Leaving



This is what we are after as seen here. We want to create a pair of target cameras facing in opposite directions and use them in our animation to give the effect of the teapots approaching and the moving away from us. Create these as you would a stationary camera (neither the camera nor the target are on the path).

This is what the cameras should show:

