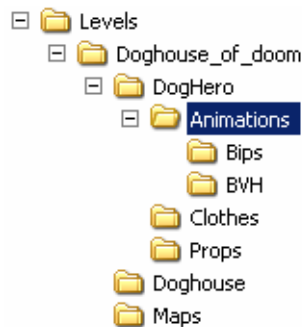


## Asset Management

### Directory Naming

Create folders within folders to organize your projects. Create folders with clearly recognizable, identifiable names, and not ambiguous ones like “MyStuff.” You are not going to be the only person using the folders, so make the names informative. You can follow any convention in your personal folder, but follow company conventions in shared directories and common folders.



### Personal Directory Structure

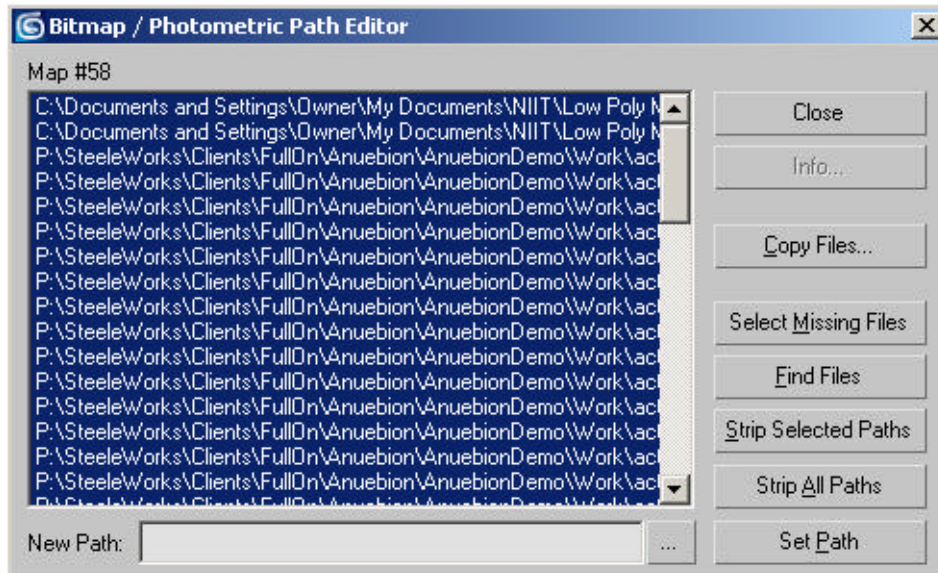
Best practices include separating working files, experiments, and other works-in-progress clearly from final versions. This serves two purposes, others can locate the latest *max* files easily and you can do a massive batch re-export and point it to the final folder without accidentally re-exporting non-final art. Batch re-export is a common practice.

If there are special instructions for exporting a *max* file, it's always a good idea to document them. You could create a *readme.txt* file, but that might not be read. Instead, use the Pop-up notes of *max*. You can access this feature through *Customize User Interface*. After you have done so, you can create notes that will automatically appear whenever you launch a *max* file. This is a very useful hidden feature.

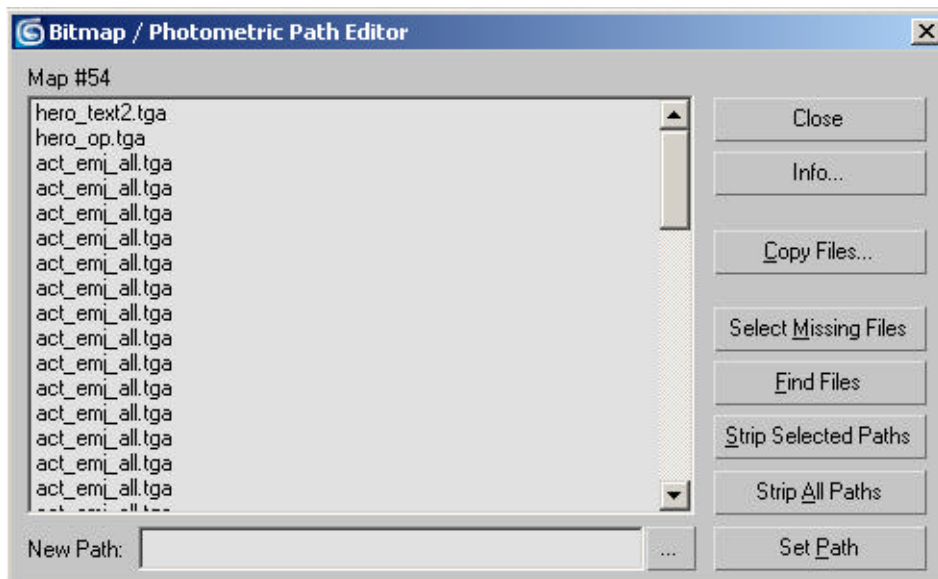
Most studios require their art source files such as *max* and *Photoshop* files to be structured like the exported art assets. The art assets will have rigid structural requirements so they will load properly within your game. By mirroring this structure with your source files, you'll ensure that files do not get lost or buried deep within someone's local hard disk drive.

Here's an example of a directory structure for a doghero character that appears in the level named *doghouse\_of\_doom*. This folder structure contains a separate map directory so that the other characters can also share the same texture bitmaps.

3ds max uses *Paths* to locate the maps and other external files. Remember that 3ds max will be creating paths for your materials and other referenced files based on your directory structure. You can cause problems for yourself and others by introducing strange paths. Later before saving your work you can remove these paths using the *Bitmap Photometric Paths* utility in max.



Map Paths selected



Map Paths stripped

## **File Naming**

Some programs and programmers have special filtering requirements for sorting the assigning of objects to levels. Some use numeric position to sequence, others use StaggeredCaps. Some use underscores or dashes as separators.

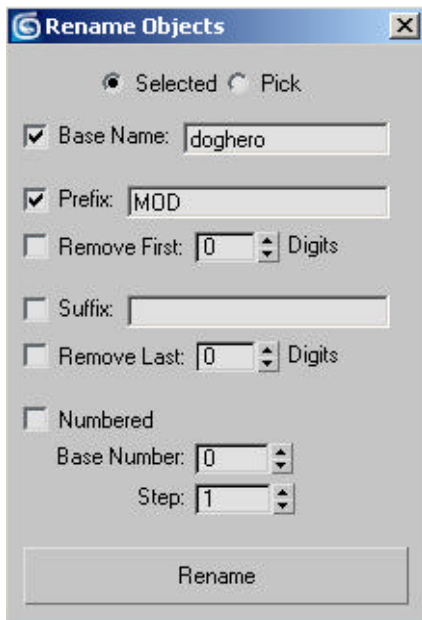
You should never use spaces as separators because many programs such as *Maya* do not accept this. Never create names longer than 36 letters. Some operating systems, archiving, and compression software programs can't read more than 36 letters. *Macintosh* for example is notorious for truncating names. If you are on a *Macintosh* include the file extension if you will be handing the file to someone working on a PC. *Macs* will not add the file extension automatically for you.

## **Object Naming**

Take the time to name everything you create in your 3D program or your paint program. The computer software usually offers you a default name for whatever you make, and if you are lazy you may just press the Enter key. If you do, it is a mistake you will pay for later. Usually when you go to skin your model and have multiple objects named Bone01 through Bone99, you will realize the intelligence of naming your objects.

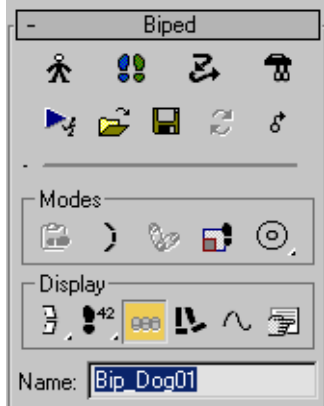
If you give your files appropriate names, you'll be able to find the exact objects later when you need to, and so will someone else on your team when you work in a production house. If there is a formal system already established at your workplace, you'll be expected to fit into the system at your workplace. If no such system is there you could take the initiative to create one.

If you have to work with a file that has lots of generically named objects, you can use the renaming feature of *3ds max* to fix the names of many objects at once. Click *Tools -> Rename Objects* to turn on this tool.



The *Rename* tool enables you to fix multiple selected object names with one click.

If you are using the Biped skeletons of the character studio, use the *Name* field to automatically rename all the skeleton components in one click.



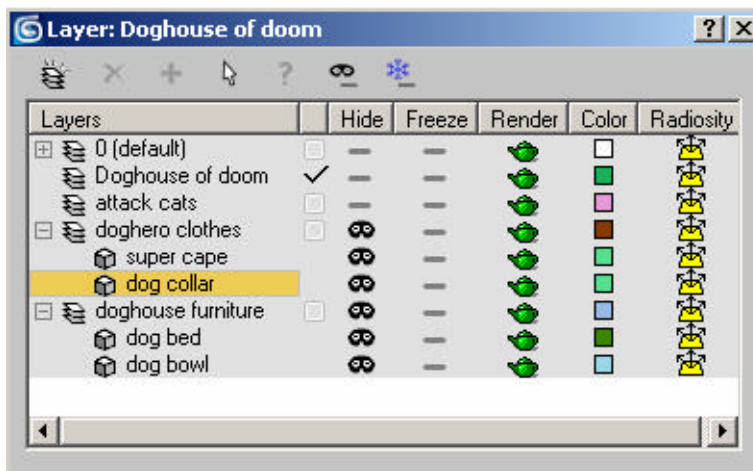
Click the *Plus* button next to the divider line to display the *Modes*, *Display*, and *Name* field.

## In-Scene Asset Management

3ds max provides you with some useful tools to manage the assets within 3ds max. When you work on a scene that has thousands of objects, it becomes important that you use the available options to organize the display and selection of the scene components.

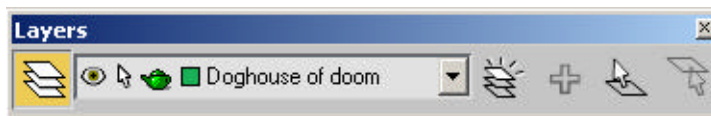
### Layer Manager

3ds max shows its CAD heritage with the *Layer Manager*. CAD files often have thousands of entities, and the *Layer Manager* is used to quickly hide and unhide objects in the viewport or to freeze objects and make them available for rendering or radiosity calculations. While not specifically designed to be used for animation, many animators organize their scenes by placing objects of one type on a layer. To hide these objects, you need to just click the *Hide* column once.



Go to *Tools -> Layer Manager*

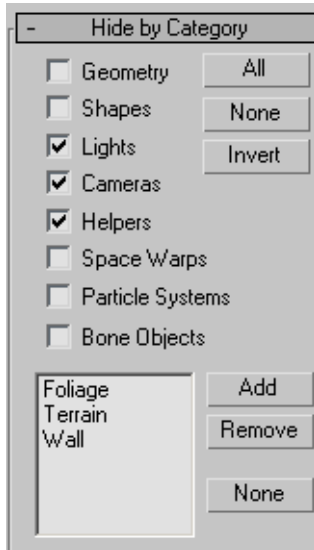
The *Layer* toolbar gives you a quick access floater to work with layers. This toolbar is hidden by default. Right-click a blank space on the *Main Toolbar* and choose *Layers* to display this toolbar.



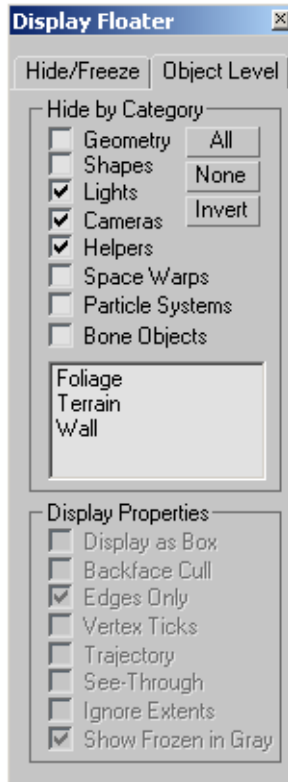
The *Layers* toolbar takes up less space in the UI than in the *Layer Manager* and does most of the same tasks.

### Display Filters

You may want to hide your cameras, lights, and helper objects to make your scene uncluttered as you work. On the *Display* panel, the *Hide by Category* rollout enables you to turn off the display of these types of objects globally. You can use the combination box at the bottom to create your own additions to this tool.



*Display Floater* gives you access to these tools while you use the command panels for other things. Press F11 to bring up *Display Floater*, or access it through the *View* menu.



*Display Floater* gives you the same tool, but the tool is not locked to the panel. Use the *Hide/Freeze* tab to hide and freeze objects. You can also *Hide* objects by right-clicking and choosing the *Hide/Unhide* options from the display quad of the right-click menu.

## Select by Name

In a complex scene it can be difficult to select an object by clicking it. Use the *Select by Name* button to select only the objects you want.



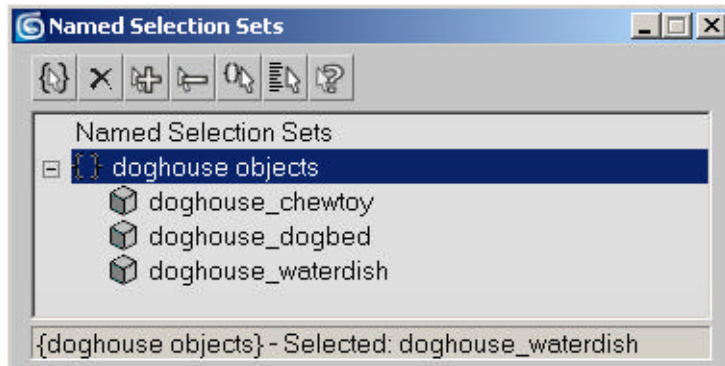
This launches the *Select Objects* dialog box. Use wildcards to select like-named objects. If you have followed good naming conventions, here is where you will see the result. You can sort your objects quickly if you name things properly.



**TIP:** Press the H key to access the *Select Objects* dialog box.

## Named Selection Sets

You can create a named selection set using the *Edit Named Selection Sets* icon on the *Main* toolbar. This launches the *Named Selection Sets* floater. Notice that you can add any objects you want to a named selection set. You can use the named selection sets to build the selection sets that incorporate objects on different layers. This gives you two independent but concurrent methods to organize the scene assets. All the doghero clothes could be on one layer, and all the capes for the different characters could be in a single named selection set.



Named selection sets are another way to organize your scene elements.

**TIP:** You may be tempted to use the *Group* command as a way to manage your scene assets. Don't use it. The *Group* command creates a hidden dummy, and links the selected objects to that dummy. This creates unnecessary hierarchies when all you are trying to do is select lots of objects together. Avoid this command otherwise it will give you very strange results in animation.

The named selection sets can also be used for sub-objects. You can assign a selection of vertices or faces to a selection set when working with Editable Polys or Editable Meshes.