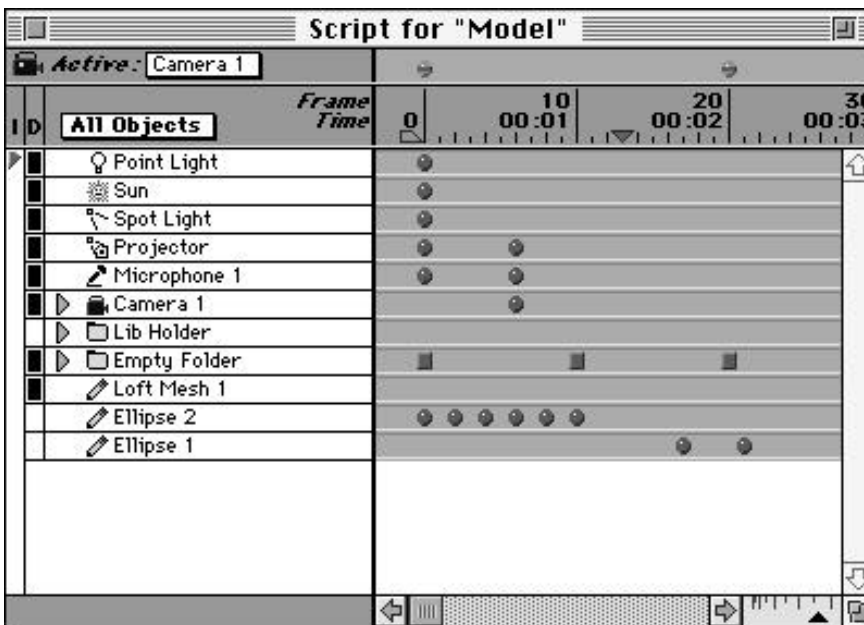


## Presenter Windows

There are five Windows in Presenter–Script Window, Active Camera Window, and the three orthographic View Windows (Top, Front, Right). Each Window has functions specific to that Window, as well as functions that are interrelated with the other Windows. To produce effective animations, you will find it necessary to understand the relationships between Windows and use the Windows in conjunction with one-another.

## Script Window

This window contains your Script List, Time Line, and model name. It provides a means to access information, and control display of Objects, Cameras, Lights and Microphones. There are three sections in the Script Window with distinct, yet interrelated, functions. These three sections are: 1) Script List, 2) Key Frame/Event Marker List, 3) Time Line.

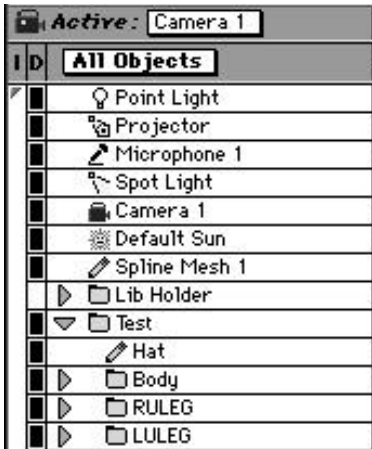


**Note:** At start-up, the red marker in the Insert Column is displayed as a triangle at the top of the Column. This position will cause items to be inserted at the top of the List. Dragging the marker to a new position in the Column changes the marker to a right-pointing arrow.

## Script List

This lists all of the Objects, Cameras, Lights, and Microphones in a scene. The grouping hierarchy from ModelPro is translated/displayed here, as well as supporting grouping (and re-grouping) created in Presenter.

As in ModelPro's Group Palette, The Script List has an Insert Column and a Display Column. The Insert Column is useful in building, and organizing your Script List.



### Insert Column

#### To insert an item into the Script List

- 1) Determine where in the List you want to insert the item.
- 2) Drag the marker, in the Insert Column, to that point in the List.

If the item to be inserted is a Camera, Light, or Microphone, then

- 4) Select the appropriate tool and place the item as described in the Presenter Tool Palette chapter.

#### To delete an item from the Script List

- 1) Select the item in the Script List
- 2) Press the delete key on your keyboard

Note: This deletes the item not only from the Script List, but from the scene entirely. If the item is part of a group structure, a warning will appear.

### Display Column

The Display Column enables/disables the on-screen display and render of a particular item. This type of control is useful in dealing with complex scenes. When a item is not being displayed, it cannot be selected, making it easier to select and manipulate nearby items. Draft-rendering is speeded by disabling the display (thereby the render) of particular items.

A black box in the Display Column indicates the corresponding item is displayed on-screen and will be rendered. A white box in the Column indicates the item is hidden on-screen and will not be rendered.

#### To enable/disable display of a particular item

- 1) Click in the Display Column next to the item you wish to affect; changes the existing status of the box (white to black, black to white).

Cameras are not affected by the status of the box in the Display Column. Lights are turned "off" when the display is disabled.

### Item Column

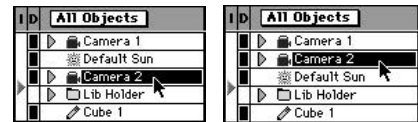
This lists all of the Objects, Cameras, Lights, and Microphones contained in a scene. A mini-icon accompanies the name of each item in the List (motion picture camera–Cameras, sun–Parallel Light sources, light bulb–Point Light sources, spot lamp–Spot Light sources, folder–Parent items (contain other items and/or folders), pencil–single Object).

Folder-items are accompanied by an arrow to the left of the mini-icon. This arrow is used to open and close the folder. Click on the arrow to toggle between open (down-pointing arrow) and closed (right-pointing arrow). Opening a folder exposes all of its “children,” which may be any of the item types listed in the previous paragraph. Objects retain the grouping hierarchy developed in ModelPro.

It is possible to “move” items about in the Script List; organizing items and re-defining hierarchy.

#### To “move” an item in the Script List

- 1) Locate the item in the List.
- 2) Determine where it is to be moved.
- 3) Drag the item to the new location in the List.



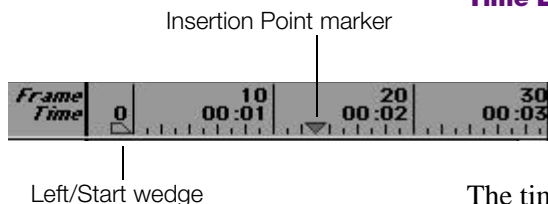
Moving an item in the Script List.

Selecting New Folder in the Action Menu inserts a folder into the Script List. The functionality of a folder generated in this manner is not yet activated.

The Item Column is one means of accessing Information dialog boxes. Double-click on the desired item in the List, and its Information dialog box will appear.

There is a pull-down menu at the top of the Item Column to help in organizing and minimizing the Column. Choose All Objects to display the entire list. Choose Cameras Only to display only the Cameras in the scene. Choose Lights Only to display only the Lights in the scene.

## Time Line



**Hint:** Use the scroll bar, Time Line Zoom box, or window resize box, to expose more of the Time Line all three are (located at the bottom of the Script Window).



Time Line Zoom Box

**Note:** Changes made in the Animation Settings dialog box, and to the Slider Bar in the Active Camera window are reflected in the position of the blue wedges in the Time Line.

This section displays the full time-length of your animation, your “Virtual Camera” control and Active Camera display control.

The time-length of your animation is described in one-second intervals, and is displayed as min:sec. Each one-second interval is broken into discreet units known as frames, displayed as tic marks. Above these entries is the frame number. The left-most entry is 0. The right-most entry is the Total (Animation) Time.

The start-point of your animation is shown on the Time Line as a blue wedge (right-pointing). The end-point of your animation is shown also as a blue wedge (left-pointing).

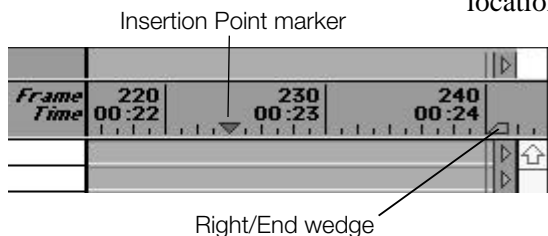
There are three ways to determine where along your Time Line the start- and end-points will occur.

- 1) Set the values numerically in the Animation Settings dialog box (Edit Menu).
- 2) Slide the blue start/end wedges at the top of the Time Line.
- 3) Use the slider bar near the bottom of the Active Camera Window. Slide the left bumper to intuitively set the start-point. Slide the right bumper to intuitively set the end-point.

At the end of the Time Line there is a two-frame “buffer” at which cells may be placed. Remember, the animation will render only to the frame defined by the end wedge.

## Active pull-down menu

The Active pull-down menu displays which camera is currently active. When you choose a new camera from this pull-down list, a Virtual Camera control marker is inserted at the Insertion Point location along the time display.



## The Insertion Point

This marker is a blue arrow (down-pointing). You may drag this arrow to any point along the Time Line. The Insertion Point “snaps” to a single frame; you cannot stop at, or display a point along the Time Line between frames. You may also use the slider bar near the bottom of the Active Camera Window to intuitively position the Insertion Point.

### To set the Animation Start/End in the Active Camera Window

- 1) Move the slider button left or right along the slider.

The position of the slider button is reflected by the Insertion Point on the Time Line. The precise location is displayed in the Time Display in the Active Camera Window.

### Virtual Camera control

These are displayed as multi-colored, round markers above the time display. The Virtual camera comes into play when you have more than one camera in a scene, and want to switch the view between cameras as the animation progresses. This empowers the animator to perform a post-production task at the point of creation.

Virtual Camera markers may be positioned (by dragging) at any frame along the Time Line.

#### There are three ways to create a Virtual Camera marker

- 1) Hold the Option key and drag an existing marker to a new location along the Time Line.
- 2) Place a camera, using the Camera Tool. The marker will be positioned at the Insertion Point location.
- 3) Set the Insertion Point arrow at the desired time, then choose a different Camera in the Active pull-down menu.

#### To operate the Virtual Camera

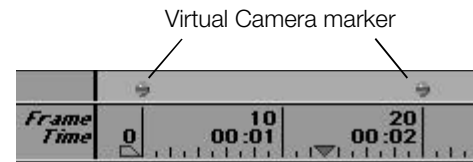
- 1) Double-click-hold on a Virtual Camera marker to display a camera selection pull-down menu.
- 2) Select which camera view you want to display/render.

The selected camera will be active until the next Virtual Camera marker is reached with a new view.

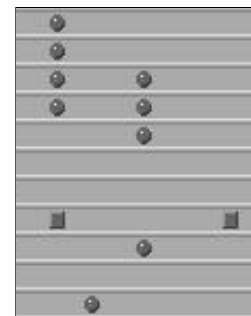
### Key Frame/Event Marker (Cell) List

This section of the Script Window displays markers defining “points” of: item insertion, application of attributes, item reposition/alteration, and software-calculated events. These “points” are referred to as cells. An item in the Script List may have any number of cells associated with it, displayed in the same row as the corresponding item.

Double-click on any cell to bring up the Information dialog box for the corresponding item. Be careful, because the Information dialog box that appears is for that particular key frame (time-stamp is displayed at the top of the dialog box).



Virtual Camera Selection



Round and Square Cells

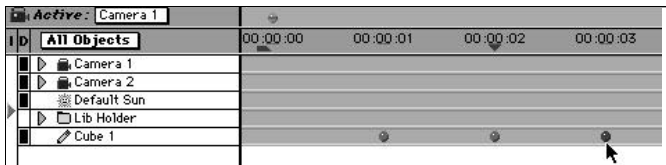
### Additional cells may be generated for an item

- 1) Hold the Option key and drag an existing cell to a new position along the Time Line.

This generates an identical cell with the new time-stamp.



Select a cell.



Move it to a new time frame.

### An example of how you might use this feature:

Suppose you have an Object (cell) located at  $x=1$ ,  $y=1$ ,  $z=1$  at time :01, then move it to  $x=2$ ,  $y=2$ ,  $z=2$  at time :02. Now you want the Object back to its original location ( $x=1$ ,  $y=1$ ,  $z=1$ ) at time :03. Hold the Option key and drag the :01 cell to time :03. This makes a duplicate of the :01 cell which carries the positional information with it.

### Red, Round Cells

There are three ways to generate this type of cell

- 1) Insert an item into the scene; generates a cell at the Insertion Point.
- 2) Alter an item, either dimension-wise or position-wise; generates a cell at the Insertion Point.
- 3) Option-drag an existing cell; makes a duplicate cell at the time where you “drop” it.

### Red, Square Cells

This type of cell signifies that the item has an Attribute(s) (Animator, Texture, Shader, Sound) applied to it (the cell is located in the Time Line at the point where the Attribute(s) was applied). In all other respects these cells are the same as Red, Round Cells.

### Blue/Yellow/Green (ND) Cells

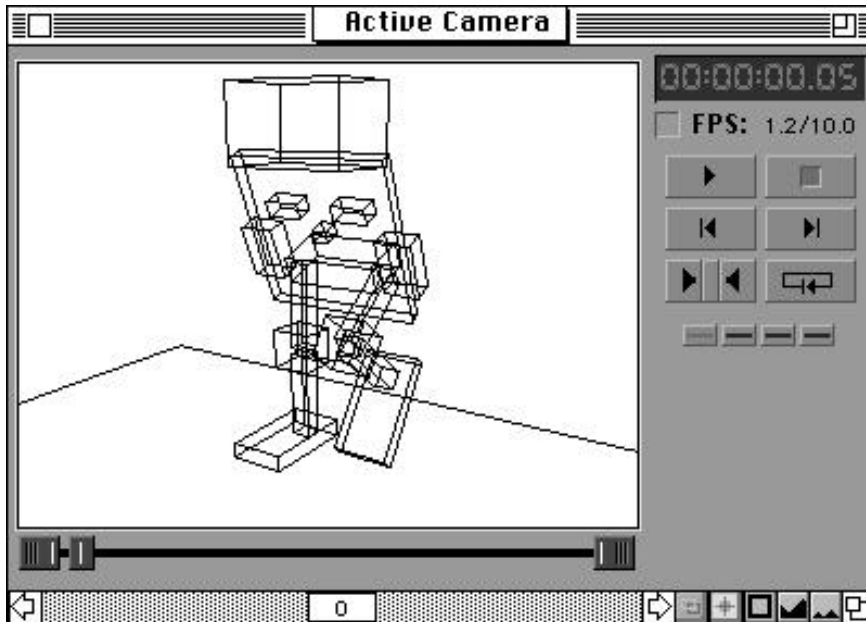
Some Animators generate ND cells. ND cells are events requiring a software calculation for Presenter to recognize and properly display the event (i.e. collision). If an Attribute which generates ND cells is applied or altered, a re-calculation (Re-calculate ND cells (Action Menu)) is necessary to preview or render the animation.

ND cells may be altered and duplicated the same as any other cell type. However, this is not suggested, because a re-calculation will generate a new ND cell, and the altered cell could then cause problems in your animation.

The color is user-defined, not function-specific. Consult the Presenter Tools chapter for more information regarding the use of ND cells.

## Active Camera Window

Displays the view from the current active camera, and animation preview (in the “preview frame“). You can intuitively position cameras, projectors and spot lights from the Active Camera Window using the Hand Tool or the Selector Tool.



The following instructions imply there is at least one camera already in the scene, pointing at the model.

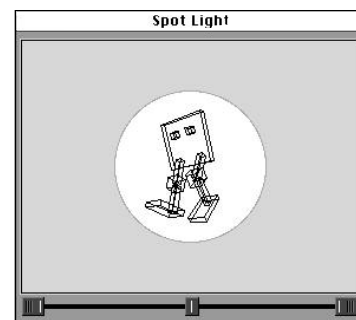
### To intuitively position a Camera (or Projector, or Spot Light)

When a Projector is selected, the preview frame displays an “illuminated” rectangle which defines where the projection will fall.

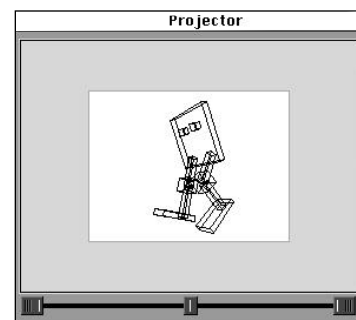
When a Spot Light is selected, the preview frame displays an “illuminated” circle which defines where the spot light will fall.

- 1) Choose the point along your Time Line when you want to reposition the Camera.

Note: If you choose a time other than the Insertion Point (Red, Round Cell in Script Window) of the Camera, a Red, Round Cell will be inserted in the Script Window when you reposition the Camera intuitively in the Active Camera Window.



Spot Light preview



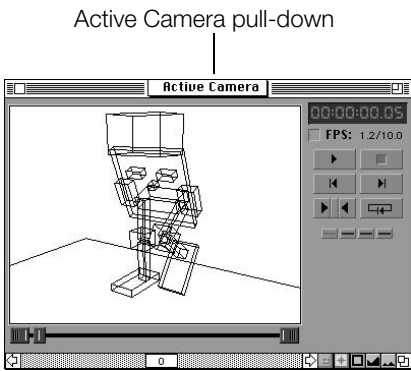
Projector Light preview.

The implication is that once you have two Red, Round Cells, each with different position information, in the Script List for an item (i.e. Camera), you have created an animation for that item (it will “move” from its position at the first Red, Round Cell to the position defined by the next Red, Round Cell).

- 2) Choose the Hand (or Selector) Tool from the Tool Palette.

Note: when you position the Tool/cursor over the preview frame, the cursor changes to a crossed-arrows cursor.

- 3) Click-hold-drag to “swing” the Camera intuitively about the scene. The Camera’s target point remains stationary.
- 4) Hold the Option key and click-hold-drag to intuitively move the Camera with its target point. The orientation of the Camera in relation to its target point remains stationary.
- 5) Hold the Command key and click-hold-drag to intuitively move the Camera position in/out along its line of sight.



### Active Camera pull-down

You may select any Camera or Projector or Spot Light source currently in the database from this menu. Selecting a Light source changes the view in the window to show how the light will fall on the scene.

### Time Display

Gives precise information about the current still display, and gives running information during animation previews; displayed in SMPTE time code. This display is informational only.

### FPS check box

Enable this check box to set the preview Play Rate to the value you have in the Animation Settings dialog box (Edit Menu). When the box is not checked, the play rate in 10 FPS (frames per second)

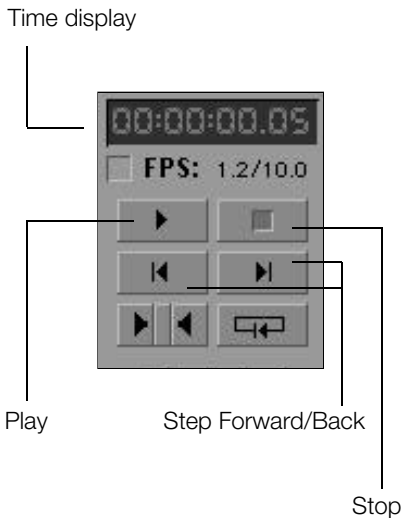
### Preview Controls

These controls are similar in nature to those found on a standard VCR.

**Play**—click on this button to start an animation preview.

**Stop**—click on this button to stop an animation preview

**Step Forward/Back**—click on these buttons to step forward/back one frame at a time.





**Audio**—to hear any sound tracks and/or effects you have implemented in your animation you must enable the speakers using these buttons. Note: to play back audio you must first Mix Sound Tracks (Action Menu). If you make changes, or additions to the audio portion of your animation, you must Mix Sound Tracks to hear the updated audio.

**Center button**—enables/disables stereo playback.

**Left button**—enables/disables left speaker playback.

**Right button**—enables/disables right speaker playback.

**Playback Control**—this button toggles between two settings: 1) animation preview to play to the end and stop, or 2) to play continuously; returning to the start point for each loop.

### Display Control

These controls are located just below the Preview Controls, and offer four different display quality settings for the preview frame. Click on the button corresponding to the desired display quality. When the button is enabled, its green “light” is on. These buttons are (left to right):

**Bounding Boxes**—displays objects as bounding boxes only;

**Dot Mode**—displays objects as dots on invisible 3-D surfaces;

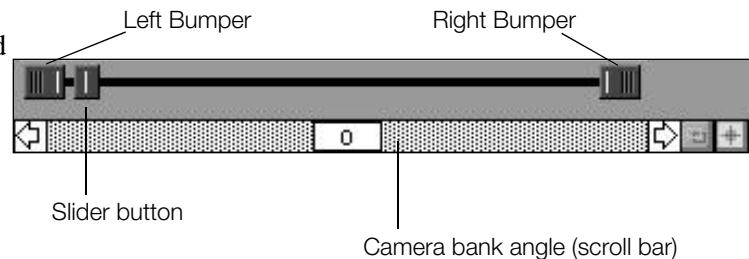
**Splines**—displays objects as splines;

**Solid Surfaces**—displays objects as solid surface shapes.



### Slider Bar

Intuitively set the Start-Time and End-Time for an animation preview/render, and move to a point in time along the time-length of the animation.



#### To use the Slider Bar

1) Move the button left or right along the slider.

This sets the Insertion Point (Script Window) to a discrete point along the Time Line and the preview frame displays that frame. The Time Display shows the precise location of the button

2) Slide the left bumper to intuitively set the start-time; slide the right bumper to intuitively set the end-time.

The Time Display shows the precise location of a bumper while you are dragging it. However, once you “drop” the bumper the display returns to show the location of the button. Changes will be reflected in the position of the blue wedges in the Time Line.

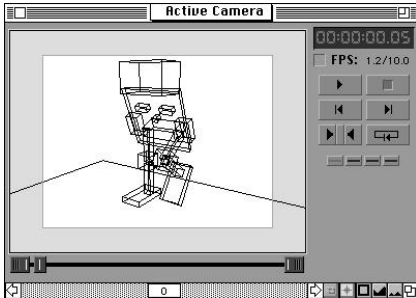
### Camera Bank Angle (scroll bar)

Allows you to intuitively rotate the camera (thereby rotating the view) on its target line axis.

#### To use the Scroll Bar

- 1) drag the button along the scroll bar; monitor the effect in the preview frame.

The numerical angle of rotation is displayed on the button. To precisely set the Camera Bank Angle, access its Information dialog box.



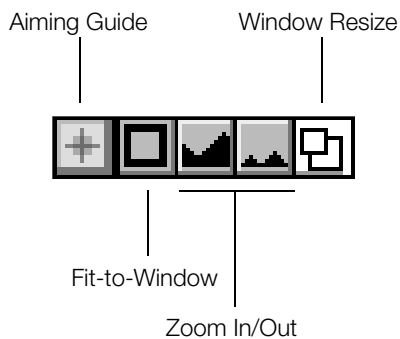
Aiming Guide activated

### Window Control

There are five window/preview control buttons located in the lower right corner of the Active Camera Window. These are (left to right) the Aiming Guide, Fit to Window Zoom-In, Zoom-Out, and Window Resize.

#### Aiming Guide

This button enables/disables a special display in the preview frame, and works only with a camera view. When it is on, the preview frame shows the active frame “illuminated.” The shaded area all around the active frame displays any objects just outside the camera view. This is useful for fine-tuning the position and field of view for your camera.



#### Fit to Window

This button resizes the visible objects so they fill the window.

#### Zoom In/Out

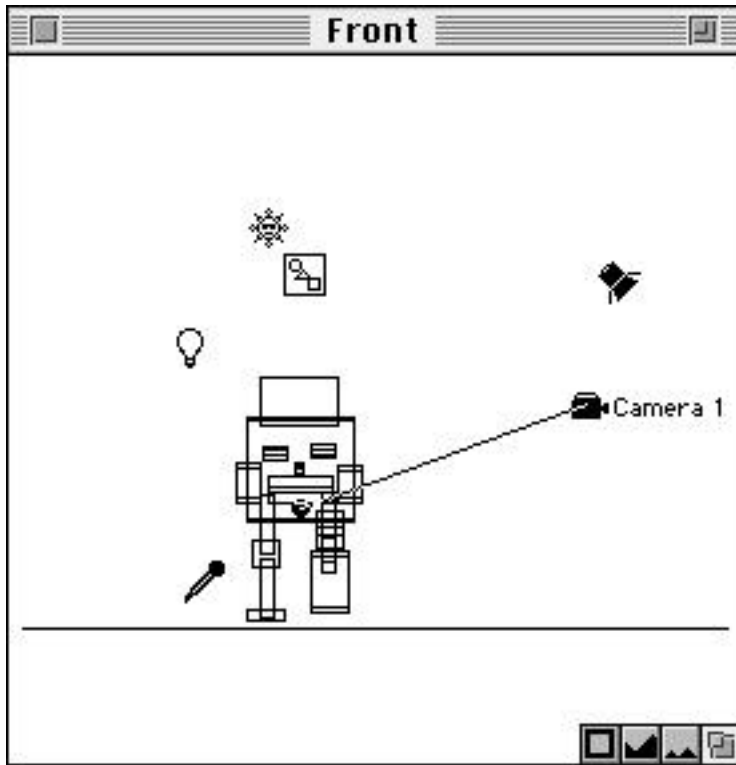
Be careful here. These buttons do more than zoom your view in and out. They actually move your camera position closer to and further from the model, along the target line.

#### Window Resize

Click-hold-drag this box to resize the entire Active Camera Window. This affects only the on-screen display of the window, and does not affect the scene in any way. The button located at the top, right of the Window toggles the display of the Window between full-screen and the size you have set with the Window Resize box.

### Top/Front/Right Windows

Use the Top, Front and Right windows to access the scene for intuitive placement and manipulation of objects, cameras, lights and microphones.



The Top, Front and Right windows each present an orthographic view of the scene. Each view is fixed in relation to the other two (90° rotation), and together give you an undistorted view of all three principle dimensions (length, width and depth) of the scene. There is no perspective distortion in the orthographic views.

**Top Window**—shows the top view of the scene.

**Front Window**—shows the front view of the scene.

**Right Window**—shows the right view of the scene.

The Information dialog box for any item (Object, Camera, Light or Microphone) may be accessed from the view Windows. Double-click on an item to access its Information dialog box.

**Note:** Double-click on any item in a view Window to access the item's Information dialog box.

**Note:** you may drag an item outside the bounds of the view Window; the view does not scroll—monitor the changes in the preview frame (Active Camera Window), when repositioning a Camera, Light or Projector.

**Note:** in all cases with Tools, the orientation of the icon itself remains constant, regardless of position, or actual orientation in the scene. Camera icons face right. Spot Light icons face right. Microphone icons are tilted.

## Editing Cameras, Lights and Microphones

The Top, Front, and Right windows are the place where you intuitively edit your Cameras, Lights, and Microphones.

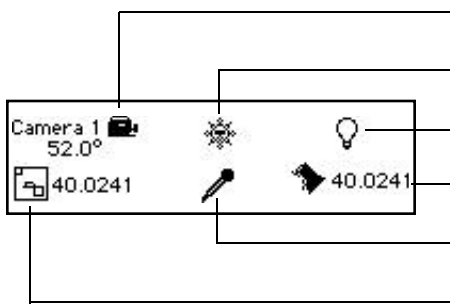
### To place a Camera (or Light, or Microphone) into a scene

- 1) Select the appropriate Tool from the Tool Palette.
- 2) Move the cursor to a view Window (Top or Front or Right).

The cursor changes from an arrow to the Tool icon when it is positioned over one of the view Windows.

- 3) Click once, at the desired scene location.

Note: with Tools, the cursor does not revert to the Selector Tool; you must choose the Selector Tool from the Tool Palette before attempting to edit a placed item.



**For a Camera**—the camera icon appears in all three view Windows, with its target point directly under the icon.

**For a Sun (Parallel) Light**—the sun icon appears in all three view Windows, with its target point directly under the icon.

**For a Point Light (bulb)**—the light bulb icon appears in all three view Windows, with its fall-off radius displayed as a circle with four resize “handles.”

**For a Spot Light**—the spot light icon appears in all three view Windows, with its target point directly under the icon.

**For a Microphone**—the microphone icon appears in all three view Windows, with its range-of-sensitivity radius displayed as a circle with four resize “handles.”

**For a Projector Light**—the projector light icon appears in all three view Windows, with its target point directly under the icon.

### To edit the position of a Camera (or Light, or Microphone)

- 1) Select the appropriate icon in a view Window.
- 2) Drag the icon to its new location.

## Editing Objects

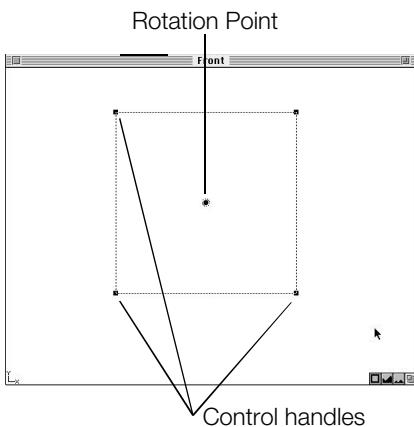
When an Object is selected, it is displayed with its bounding box (control “handles” at each corner). The rotation point for the Object is displayed as a target, located at the center of the bounding box.

### To reposition an Object’s rotation point

- 1) Select the object
- 2) Drag the rotation point to its new location.

### To reposition an Object

- 1) Select the object
- 2) Drag the Object to its new location.



### To edit the size of an object

- 1) Select the object
- 2) Drag one of the control “handles” to intuitively resize the object. Hold the Shift key to constrain the resize to be proportional.

For more specific information on how to manipulate and alter Cameras, Lights and Microphones, consult the Tool Palette chapter.

### Fit to Window button

Clicking on this sizes the entire extent of your scene to fit within the window. This does not affect the dimensions of your scene, only the scale factor of a given window.

### Zoom In/Out buttons

Clicking or holding on these buttons moves your viewer position closer to/further from the model. This does not affect the dimensions of your scene, only the scale factor of a given window.

### Window Resize

Click-hold-drag this box to resize the entire view Window. This affects only the on-screen display of the Window, and does not affect the scene in any way. The button located at the top, right of the Window toggles the display of the Window between full-screen and the size you have set with the Window Resize box.

### Display Quality Control

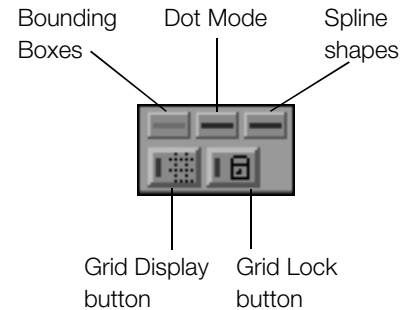
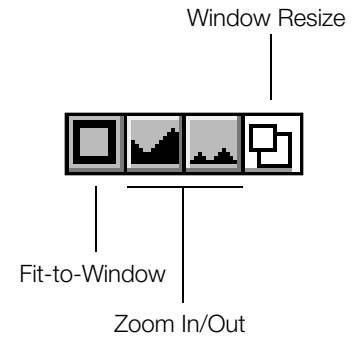
Three buttons, in the upper right corner of the screen, control the display quality of objects in the Top, Front and Right view windows. You may select to view objects as (left to right): Bounding Boxes, Dot Mode or Spline shapes.

### Grid Display and Lock

Two buttons, in the upper right corner of the screen, control grid display (left) and grid snap/lock(right).

The Grid Display button enables/disables grid display in Top, Front, Right and Active Camera windows. The grid shows as dotted, blue lines.

The Grid Lock button enables/disables the locking grid in Top, Front, Right windows.



**Note:** An Object's rotation point snaps to the grid. A Camera's (or Light's, or Microphone's) icon snaps to the grid. A Camera's (or Light's) target point snaps to the grid.

## Render Control Palette

The controls you need to execute a render operation are located at the top of the screen. From this palette you may: render a still image or animation, select the rendering engine, set the frame size, render proofs or full-quality final images, and select special camera types.



Render Control Palette

### Render Animation button



The movie camera button at the top-left of the screen prompts you for a name and save location for your rendered animation. This standard Save dialog box gives you two options for saving your animation; choose to save as QuickTime movie or numbered PICT's. Additionally, choose to render immediately or at a later specified time.

Click on the QuickTime Params button to access the dialog box for special settings if you choose to render a QuickTime movie.

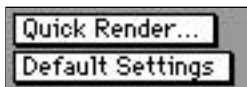
### Render Still Frame button



The still-camera button at the top-left of the screen prompts you for a name and save location for your rendered still frame. This standard Save dialog box allows you to save as a PICT only. Additionally, choose to render immediately or at a later specified time.

### Render Engine Type pull-down menu

This pull-down menu lists all of the rendering engine types which are available to you. The currently selected engine is shown in the pull-down above the list. Pixar's RenderMan will be available only if you have purchased that engine separately, and properly installed it for use with Presenter



Render Engine pull-down menu

#### To select a rendering engine, and edit rendering preferences

- 1) Drag down to the desired engine name in the pull-down menu.
- 2) Click on the selected engine to expose the dialog box for editing preferences for that particular engine.

The selected engine shows above the list in the pull-down.

**Quick Render**—flat rendering with no shading or shadows. This is the quickest rendering method and is useful as a rough draft for object placement and quick animation preview.

**Ray Trace**—produces the most realistic final product. This method can render light and shadow effects, texture maps and shaders. This is also the most time-consuming of the render engines. This rendering engine does not currently render transparency or reflection effects.

The rendering options for ray tracing control how anti-aliasing is done (if it is enabled), limits on the calculations involved for reflections and transparency, and the number of polygons created for spline meshes. Each of these options can have tremendous impact on rendering time.

### Antialiasing

Antialiasing is achieved by rendering the image at a large resolution and filtering it back down to the desired size. The subsamples field selects the number of extra samples across and down. A setting of 2 is usually sufficient for animation, while a setting of 3 will produce finer results, and a setting of 4 will produce excellent results for still images. Since this field scales the image samples horizontally and vertically, the rendering time increases quickly. A setting of 8 requires 64 additional samples per pixel which could take up to 64 times as long to render.

### Filtering

The filter settings control the math involved in reducing the larger image to the desired size. Each filter type produces a different result, and is appropriate in different circumstances. For low sampling, box filter is usually sufficient, but for still images, a gaussian or lanczos filter with a larger radius produces a better image. Gaussian filters are mathematically softer, and using it for anti-aliasing may slightly blur the image. The Lanczos filter is a very sharp filter, and generally produces a very sharp image, but may show jagged edges in certain circumstances.

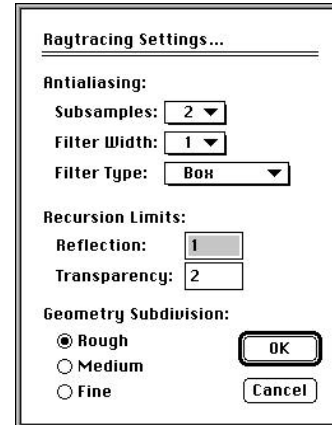
#### Some sample antialiasing configurations are:

**Fast rendering of an animation:** subsamples=2, filter width= 1,  
filter type= box

**Better animation or quick still:** subsamples=3, filter width= 1,  
filter type= gaussian

**Better still:** subsamples=4, filter width= 2, filter type= lanczos

**Extreme still:** subsamples=6, filter width= 4, filter type= lanczos



Ray Trace Default Settings

### Recursion Limits

Ray tracing renders realistic effects such as reflections and refraction of transparent materials by mathematically tracing the path light would take to reach your eye for each pixel. Thus, as it encounters each reflective surface, and new calculation is made to trace the path light would bounce off it from that angle. In the case of a camera between two mirrors facing each other, the algorithms could continue on forever bouncing back and forth if left to their own devices. As this is undesirable, the software allows you to set limits on the number of levels the algorithm will bounce off of a reflective surface, or trace through a transparent object.

The reflection limit defaults to 1 (one), though two or three may be desirable for scenes with many reflective objects facing each other. For scenes with little or no reflections, a high reflection limit will not affect rendering time.

The transparency limit defaults to 2 (two), which is sufficient for scenes with limited or no transparent geometry. For scenes with many transparent layers assembled together, or complex sculpted glass shapes, higher settings may be necessary in order to see all the way through layers or objects.

There are no numerical limits for these settings, but there is most likely a point of diminishing returns. Besides the time penalty of waiting for a ray to reflect a hundred times, which would take one hundred times as long as a single reflection, the resulting pixel will probably not reveal any of that effort in its final color. Except in extreme circumstances, limits of 8 are usually the upper bound of reasonable effort.

### Geometry Subdivision

The VIDI ray tracer does not render patches directly, but converts them into polygons first. The number of polygons created for each patch is controlled by this selection.

The rough setting converts each patch into a single quadrilateral, which provides only the simplest of representations. This setting is best used for quick tests, or overbuilt models with thousands of patches.

The medium setting converts each patch into a 4x4 mesh of



quadrilaterals, for a total of 16 polygons per patch. This provides an adequate representation for most objects, as long as single patches are not extremely deformed or bent.

The fine setting converts each patch into an 8x8 mesh, or a total of 64 polygons per patch. This setting can result in thousands of polygons for larger meshes, and will require a lot of memory for rendering. This should only be used when the medium setting is not sufficient, or for higher resolution images.

**AutoStereogram**—Random Dot AutoStereogram. Image hidden in a colored dot pattern. Render small-sized drafts of your stereogram, each with different render settings for comparison. Click in the pattern box on the right side of the dialog box to change the pixel pattern. To view the stereogram: gaze at an object behind the stereogram image, then slowly move the stereogram image into your line-of-sight.

**RenderMan™**—is a high-end rendering engine with extensive configuration options, and supports features such as motion blur and displacement mapping.

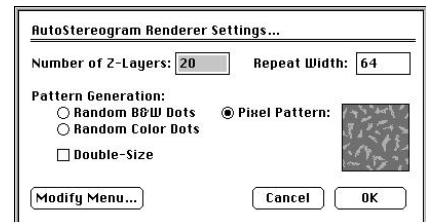
### Default Settings pull-down menu

Customized render set-ups are added to this list. This pull-down menu is used in the same manner as the Render Engine Type. Each rendering engine has its own preferences dialog box; when you have entered some custom settings, choose to save them (named)—this custom set-up will be listed in the Default Settings menu.

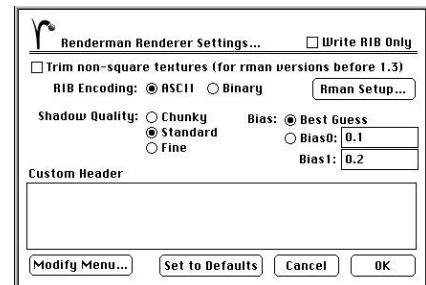
### Frame Size pull down menu

Allows you to choose from a list of standard frame sizes. The currently selected size is shown in the pull-down above the list. Click on the currently selected size to access a dialog box to customize the frame size. You may choose to add a custom size to the list which may then be selected the same as any of the pre-set sizes.

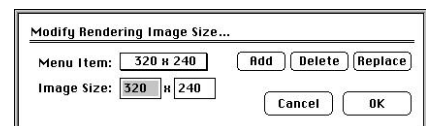
### Camera Type pull-down



AutoStereogram Default Settings



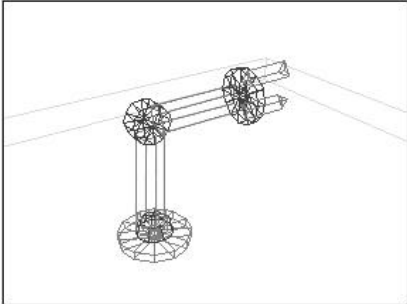
Renderman Default Settings



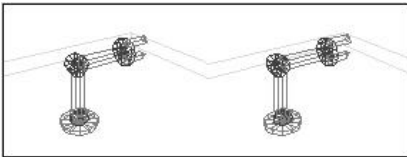
Frame Size Dialog Box



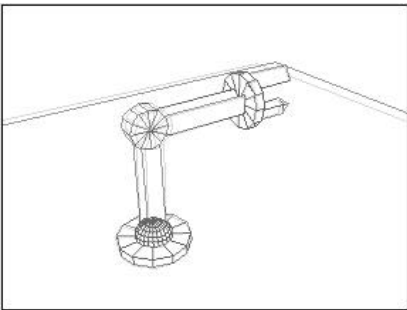
Camera Type pull-down



Mono Image



Stereoscopic Image



Red/Blue Stereo



Environment Settings color chit

**Note:** the View Windows Display Quality controls and Grid Display/Lock are described in the Top/Front/Right Windows section of this chapter.

**2:28**

Gives you option to set your camera to

**Mono** - single image—this is a standard camera.

**Stereoscopic** - double image. Set Stereoscopic preferences in the Environment Settings dialog box (Edit Menu).

**Red/Blue Stereo** - Dual images; one Red, one Blue slightly offset. Final animation to be viewed with special 3-D glasses.

**Render Quality Features**

These buttons (red ball icons at the top-center of the screen) allow you to customize your render quality. Click on the appropriate button to enable the desired feature (the green “light” above the button indicates the status of the button). Use these buttons to enable/disable the following features for rendering:



**Transparency**

**Reflection**

**Motion Blur**

**Textures/Shaders**

**Shadows**

**Anti-Alias**

**Environment Settings color chit**

Click here to access the Environment Settings dialog box. The Ambient Light color shows as a circle centered in the color chit. The Rendering Background color fills the remainder of the color chit surrounding the Ambient Light circle. See the description of the Environment Settings dialog in the Menus Chapter (Edit Menu).

**X, Y, Z Coordinates**

The x, y, z coordinates shown at the top, right-center of the screen give a running account of the position of the cursor in the Top, Front, and Right View windows. The values shown are inches regardless of the size of the model.