Camera Tutorial

      The camera plays the critical role in recording the action portion of film, video, and multimedia pre-production and production. In this tutorial, you will practice setting up and working with cameras. You will start by manipulating the position of the camera. You will then add a camera and position it as well. Additionally, you will change the fields of view, the angles of the cameras, and observe the effect of revolving the camera.

For this tutorial, you will be positioning two cameras to view a pre-set stage and characters. The setting is a playground with two characters named Roly and Poly.
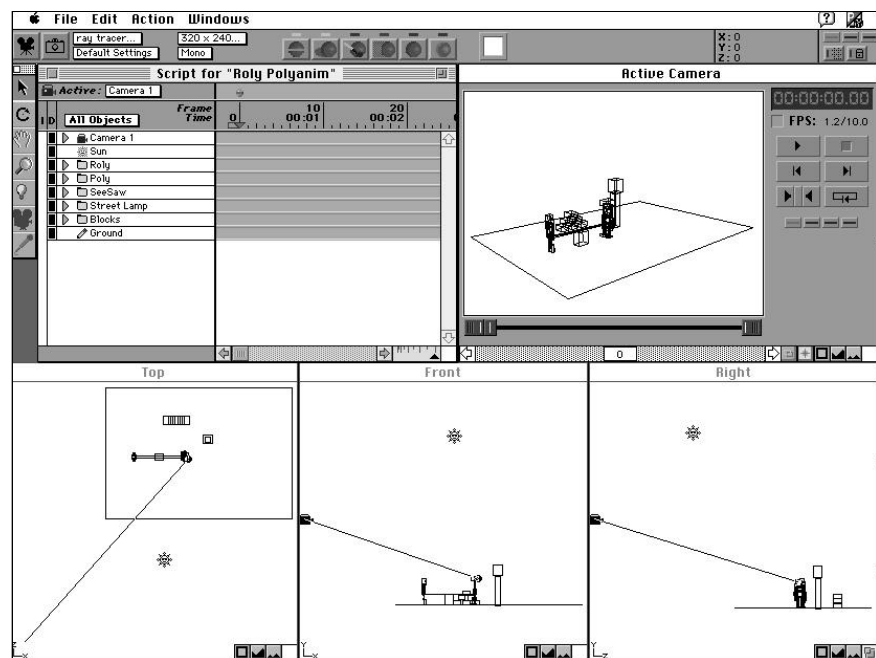
Getting Started

      If Presenter is not already open, open it now by double-clicking on the Presenter icon.

Click on File and drag to Open Model. Open the Roly Poly.mdl in the Tutorial Folder. Click on File and drag to Save Model As. Enter new name for model: Roly Poly Camera.mdl.
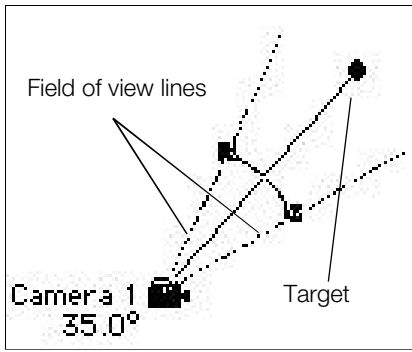
A default camera named Camera 1 and a parallel light source named Sun 1 are automatically added to any model when it is opened in Presenter. The name is placed in the All Objects script list and their icons appear in the three views of the stage.

The camera icon represents the position of the camera on the stage. The control point extending out from the camera is used to set the direction of the camera. The two angled lines extending out from the camera represent the field of view.

The digital production environment

Note: Save your work often!

Field of view lines

Camera 1
35.0°

Target

Camera icon

Camera 1
35.0°

Camera field of view

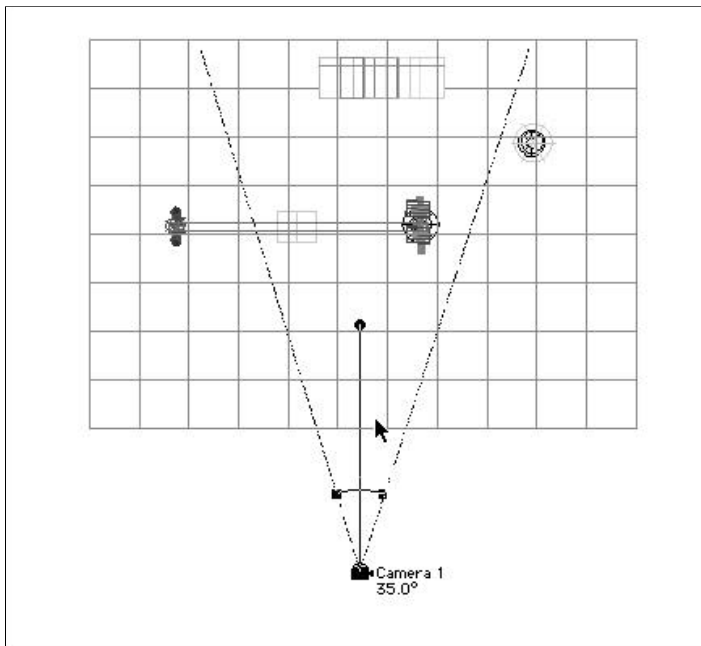**Repositioning the Camera in the Stage Windows**

Using the 3 stage view windows, you can reposition the camera position, the direction of the camera, and the field of view.

Click on the Top View to make it the active window.

If the camera icon is not visible, you may want to enlarge the Top Window. Be sure that the Active Camera control screen is also visible.

Click on Camera 1 and drag it so it is positioned in front of the playground scene. Using the Camera window as your control screen, you can see the effect of re-positioning the camera.

Click on the Target Point and drag it so it is in the middle of the playground in front of the teeter totter. Once again, notice the effect in the Active Camera control screen.

In any of the stage view windows, click and drag either of the control points on the lines to expand and shrink the field of view. Observe the effect of changing the field of view in the Active Camera control screen.

Repositioning the Camera in the Active Camera control screen

The Active Camera control screen can be used as a second way of changing the position of the camera..

Click on the Active Camera control screen to make it the active window.

When the cursor is placed inside the Active Camera control screen, it becomes a cross hair cursor with arrows.

Click anywhere in the window and drag. Notice how the camera icon, but not the target point, moves in the 3 stage views.
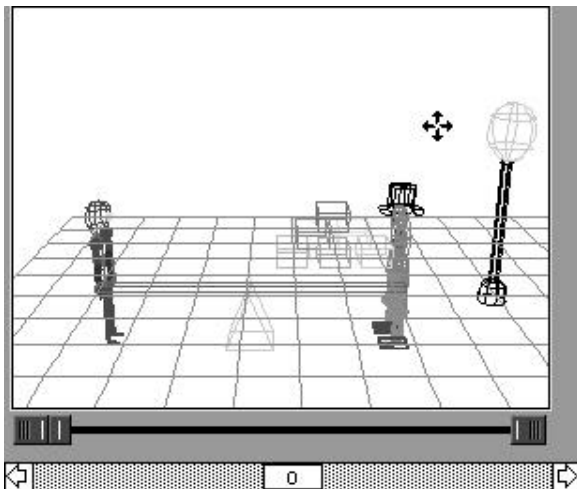
Click and drag the indicator in the scroll bar at the bottom of the Active Camera control screen or click on one of the arrows to either side of the scroll bar. This scroll bar is the Camera Roll Scroll Bar and rotates the camera (imagine how a pinwheel moves when you blow
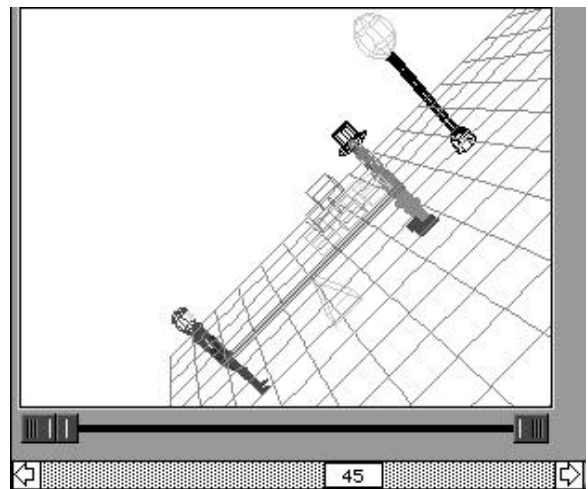
Adding a Camera

    In the tools palette, click on the camera icon. Click in one of the 3-D View Windows to make it the active window. Click in the window to place the camera.

Repositioning the Camera Using The Object Information Dialog

    Each object listed in the Script has an Object Information Dialog that can be used to reposition the camera position, the direction of the camera, and the field of view.

Normal camera view

Rotated camera view

Double click on any portion of the camera object (i.e. the camera, the target point, the vectors, etc.) or on the name in the Script list to bring up the Object Information Dialog.

Camera Object Information dialog

The camera object can be renamed by selecting the current name in the upper left corner next to the camera icon and typing the new name.

The camera can be repositioned by typing in coordinates in the x, y, and z fields of the Source Point. Type in different coordinates and notice the effects in the 3 stage windows and the Active Camera control screen.

The target point can be repositioned by typing in coordinates in the x, y, and z fields of the Target Point. Type in different coordinates and notice the effects in the 3 stage windows and the Active Camera control screen.

The camera angle can be changed by typing a new angle measurement or lens size in the Field of View fields.

You can change the settings to the parameters that existed when you opened the Object Information Dialog by clicking the Revert button.

Summary

The Active Camera control screen in Presenter's simulated control room was used to preview the positioning of two cameras and the changing of camera field of view, angle, and rotation.