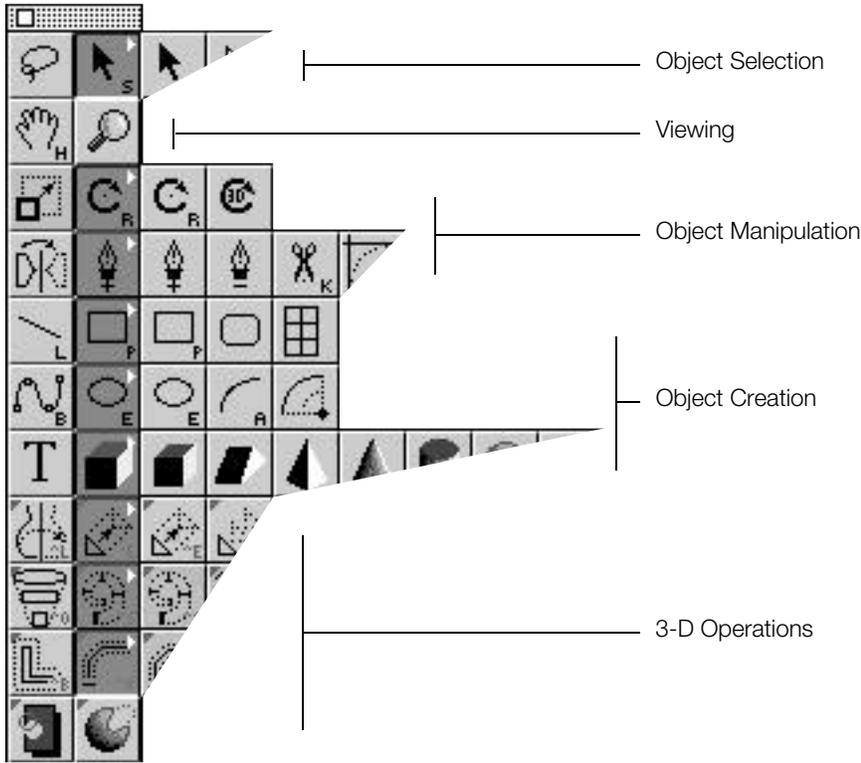


The Tool Palette

The ModelPro Tool Palette provides you with the ability to perform five types of operations: Object Selection, Viewing, Object Manipulation, Object Creation, and 3-D Operations. The tool palette consists of twenty-two tool icons placed in two columns at the left of the screen. With the pop-up options, there are forty tools.



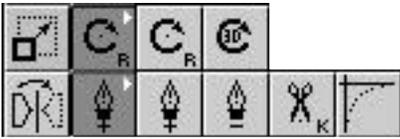
Object Selection

The two Selector tools are used to select Vertices, Objects and Groups for further manipulation and editing. The Lasso is used to select Vertices only.



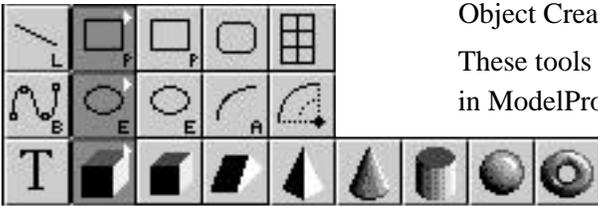
Viewing

The Hand and the Magnifying glass are used for panning and zooming within the three 2-D Viewing Windows, and rotating, banking and zooming within the 3-D window.



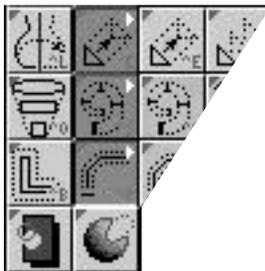
Object Manipulation

These tools do simple manipulation of objects that have already been created. No new geometry is created.



Object Creation

These tools are used for creating all the objects that are used in ModelPro.



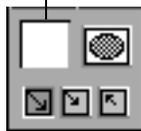
3-D Operations

These tools operate on objects that have already been created, and are used to generate complex forms.

Drawing Options

The Drawing Options portion of the Tool palette has three features: 1) set selected item color, 2) filled/unfilled closed 2-D shapes, and 3) drag options.

Color Box

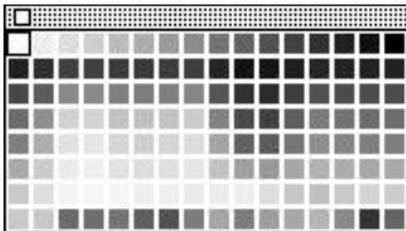


Color

Click in the color box to access the 128-color palette. Drag to the desired color and release to select it. This is a “tear-off” palette—continue dragging away from the palette to reposition it.

To set the color for a selected item

- 1) Select the item(s) (object, or group, or spline path).
- 2) Click-hold in the color box.
- 3) Drag to the desired color and release.



128-color, tear-off palette

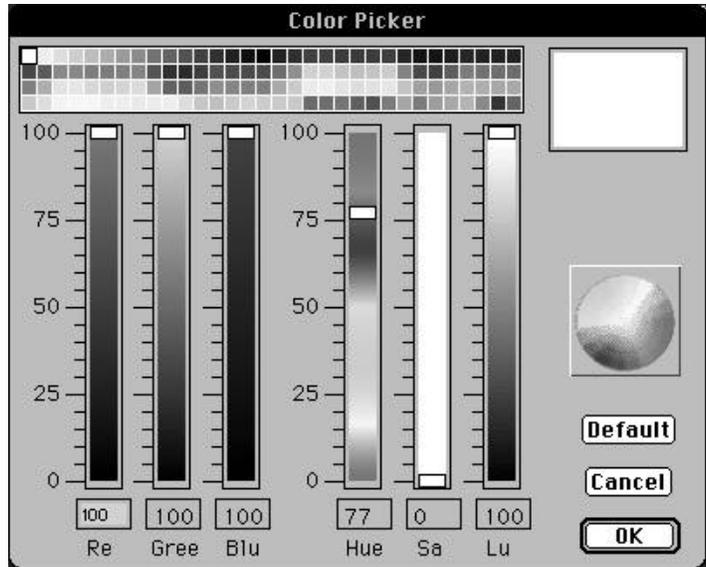
Double-click on the color box, or on any color in the palette to expose the Color Picker. The 128-color palette is shown at the top with the color selected which you double-clicked. A large preview of that color shows on the bottom of the box at the top-right of the Color Picker. To compare that color to another, adjust the sliders for Hue, Saturation, Brightness, Red, Blue and Green (or enter numeric values), or click on the Color Wheel (middle-right) to access the standard color edit dialog.

To inject a new color into the 128-color palette, create the color as outlined above, then click in the palette at the position where you want the new color. This new color will replace an existing color in the palette.

To make a color gradation in the 128-color palette

- 1) Hold the option key.
- 2) Click-hold the first color you want in the gradation.
- 3) Drag to the last color you want in the gradation, and release.

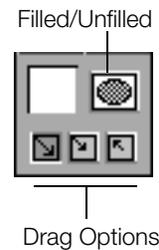
This will create a smooth gradation of color, in the palette, between the first color and last color selected.



Filled/Unfilled

The button for setting a closed 2-D shape to be filled or unfilled is shown as an ellipse (shaded or clear) in a rectangle. This option must be set before creating the closed shape. This does not work on existing closed shapes. Double-click on existing closed shapes (⌘-I) to access the Info dialog, and set the filled/capped option.

If the button is shown with a shaded ellipse, the shape will be filled; if the ellipse is clear, the shape will be unfilled. Click on the button to toggle between the filled and unfilled status.



Drag Options

The three boxes with arrows determine how the 2-D quickdraw shapes (polygons and ellipses) will “drag out.” Shown left to right, they are corner-to-corner, corner-to-center, and center-to-corner. To employ these drag options, set the desired option by clicking on it (the button will adopt a green background) before creating the quickdraw shape.

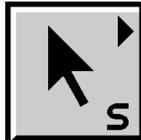
Symbols Tool Icons

A black triangle in the upper right corner of a tool icon indicates that there is a pop-up sub-palette of tools underneath that tool. Press and hold the mouse on the tool icon, and the sub-palette will appear. You can then drag out onto one of the new tool choices to select that tool.

A small letter in the lower right corner of a tool icon indicates that there is a keyboard equivalent for selecting that tool.

Tools that have a letter can be selected simply by pressing the corresponding key on the keyboard. This allows the user to select the tool from the keyboard rather than having to go over and pick it with the mouse cursor. This is a nice time saver and becomes a very valuable feature as you become more experienced with ModelPro.

If the small letter is red, it also has a carat (^) symbol to indicate that the shift key must be used along with the letter key to activate that tool.



Sub-palette indicator displayed as a triangle in the upper right corner of the button



Keyboard Equivalent letter displayed in the lower right corner of the button.

The carat symbol means that the shift key must be used.

Standard Keyboard Modifiers

What follows is a list of items that show what happens when you hold down various keyboard combinations while using most of the tools. These keyboard modifiers bring special functions into play. You are able to use all these extra features without having to put away or change tools. These shortcuts and power-user features make using ModelPro that much nicer to use and that much more efficient.

In many of the tools, there are additional, separate, or replacement functions that may result from holding down these keyboard combinations. If this is the case, then those items are spelled out in the discussion of each individual tool.

- If you hold the **Command** key, you temporarily get the Selector tool. This allows you to select objects by making the vertices visible. (This is the Standard Selector tool.)



- Holding the **Command** key and the **Option** key together will temporarily give you the Selector(+) tool. This allows you to select objects as a whole, rather than just making their vertices visible.



- Holding the **Command** key and the **Control** key together will temporarily give you the vertex-edit arrow (a white arrow cursor with no tail.) This allows you to make sharp corners become smooth by dragging off a visible vertex, or make a smooth vertex sharp by dragging a visible control point of a selected vertex.



- Holding the **Space Bar** down temporarily gives you the Hand tool with which you can pan the orthogonal views or rotate the Angled view.



- Holding the **Command** key and the **Space Bar** together temporarily gives you the Zoom-In Magnifying Glass tool. This allows you to zoom-in on the different views while you are working.



Holding the **Option** key and the **Space Bar** together temporarily gives you the Zoom-Out Magnifying Glass tool. This allows you to zoom-out on the different views while you are working

