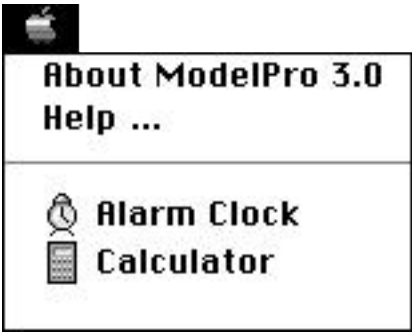


This Quick Reference section is provided for your convenience. It describes the basic functions of ModelPro Menus, Windows, and Palettes.

Menus



Show developer information  
Open ModelPro Help file

Access to Desk Accessories



Open a new file that is blank  
Open an existing file  
Close the current file  
Save the changes to the current file  
Save the current file under a new name  
Discard changes and open the last saved version  
  
Open a data base as a Library item  
  
Setup the current file for the current print device  
Print the current file to the current print device  
  
Switch to the Presenter module  
Quit the application



**Menus** *continued*

Edit		
Undo	⌘Z	
Cut	⌘H	
Copy	C	
Paste	⌘V	
Clear	⌘B	
Select All	⌘A	
Redo	⌘R	
Clone	⌘W	
Duplicate...	⌘=	
Preferences...		

- Undo the last action (up to 10 times)
- Remove the selection and put it on the clipboard
- Put a copy of the selection onto the clipboard
- Place a copy of the clipboard contents into the file
- Remove the current selection from the file
- Select all objects in the file
- Redo an action after Undo (up to 10 times)
- Make a copy of an Object directly on top of the selected Object
- Bring up Dialog Box for Linear and Polar Duplication
- Bring up Dialog Box for setting Preferences

Windows		
Re-display	⌘D	
Top	⌘1	
Front	⌘2	
Right	⌘3	
3D Window	⌘4	
Palettes	▶	
Display Image	⌘E	
Clean Up Windows		

- Redraw all the viewing windows
- Show and bring-to-front the Top view Window
- Show and bring-to-front the Front view Window
- Show and bring-to-front the Right view Window
- Show and bring-to-front the Angled view Window
- Display Palettes sub-menu. Enable/Disable display of palettes

Palettes	▶	Statistics
		✓Tools
		✓Snapping
		✓Groups
		✓Tool Info
		✓Status Line
		Libraries

**Options**

✓ <b>Show Rulers</b>
✓ <b>Show Guides</b>
<b>Show Grid</b>
✓ <b>Show Depth Line</b>
✓ <b>Show Markers</b>
✓ <b>Snap To Guides</b>
<b>Lock Guides</b>
<b>Clear All Guides</b>
<b>Clear All Markers</b>

- Display Rulers in each of the View Windows
- Display user-set guide lines
- Display the Grid
- Display the “lock” position defined by Space Bar
- Display user-set reference points
- Snap cursor to guide lines when close enough
- Prevent guide lines from being moved or deleted
- Remove all guide lines from the View Windows
- Remove all Markers from the View Windows

**Group**

<b>Group</b>	⌘G
<b>Ungroup</b>	⌘U
<b>Create Folder</b>	⌘F
<b>Information</b>	⌘I

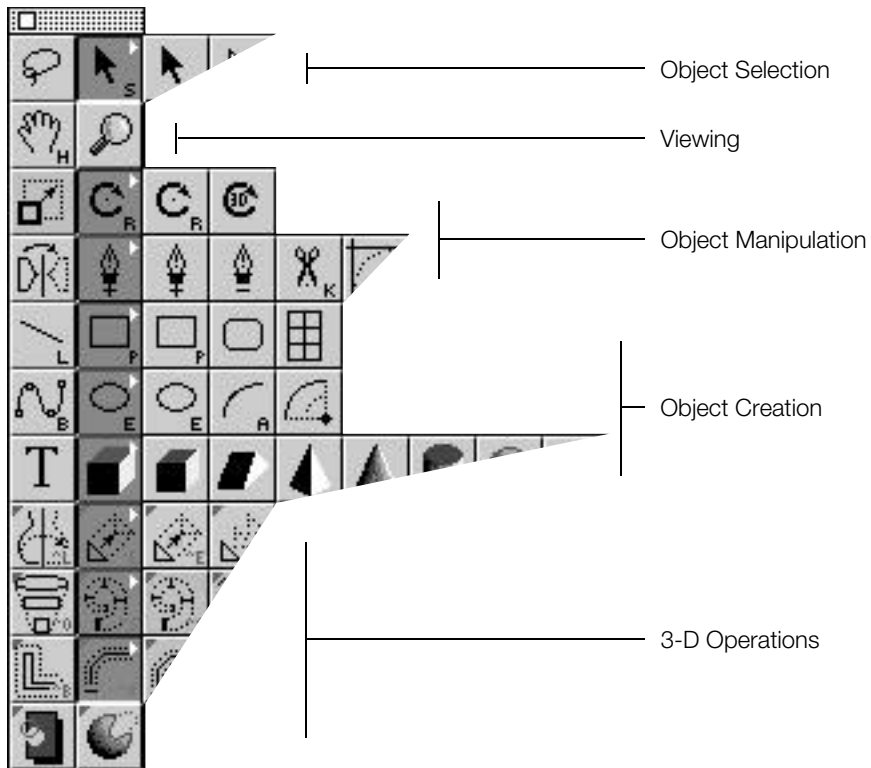
- Combine all selected objects into a group
- Break a group into its individual objects
- Create a new folder in the Group palette
- Bring up Object/Group Info dialog box for the selected item

**Operations**

<b>Transform...</b>	⌘T
<b>Join Elements</b>	⌘J
<b>Align...</b>	
<b>Move To...</b>	⌘M

- Bring up dialog box for Translate, Rotate, Resize
- Combine selected objects into a single Joined Spline
- Bring up dialog box for aligning objects relative to one another
- Bring up dialog box for moving objects exactly

## Tool Palette





Lasso Selector—"Freehand" selection of vertices

Selector— Select objects and vertices for moving and editing

Direct Selector—Select objects and vertices for moving and editing



Hand—Pan View Windows and rotate view in the Angled view Window

Magnifying Glass—Zoom the view in and out



Scale—Scale selected objects larger or smaller

Rotate—Rotate selected objects in a 2-D plane

3-D Rotate—Rotate selected objects in 3-D from an orthogonal view Window



Mirror—Reflect the selected objects across a mirror line

Add Vertex—Create a new vertex at the cursor place on the current object

Delete Vertex—Delete the selected vertex on the current object

Scissors—Cut the selected object at the click point

Fillet—Create a radius fillet at the vertex of two straight lines



Line—Create a Line object between the two click points

Polygon—Create Rectangles and Polygons

Rounded Corner Polygon—Create rounded corner Rectangles and Polygons

Spline Mesh—Create a planar spline mesh which may be edited into a 3-D shape



Spline—Create 2-D or 3-D spline shapes

Circle / Ellipse—Create 2-D circular and elliptical closed splines shapes

90° Arc—Create 2-D elliptical, 90° arcs

Circular Arc—Create 2-D circular arcs (1°–360°)

## Tool Palette *continued*



Text—Create 2-D spline shapes from Postscript or TrueType font characters

Primitives—Create a surfaced 3-D object

Cube, Prism, Pyramid, Cone, Cylinder, Sphere, and Torus



Lathe—Create a 3-D spline surface by rotating a 2-D contour around an axis

Extrude—Create a 3-D spline surface by extruding a 2-D contour along a vector

Linear Duplicate—Distribute copies of selected objects along vector



Loft—Create a 3-D spline surface by “skinning” a series of  
2-D sections (shapes) which act as “ribs”

Sweep—Create a 3-D spline surface by rotating, with linear offset,  
a 2-D section around an axis

Polar Duplicate—Distribute copies of selected objects around a user-defined axis



Bevel Extrude—Extrude a closed 2-D shape along a 2-D path, which is perpendicular to  
the plane of the shape

Path Extrude—Extrude a 2-D shape along a user-set 2-D or 3-D path

Path Duplicate—Distribute copies of selected objects along a user-set path



Punch—Remove the portion of a surface (2-D or 3-D) that intersects with a  
projection of a closed 2-D shape

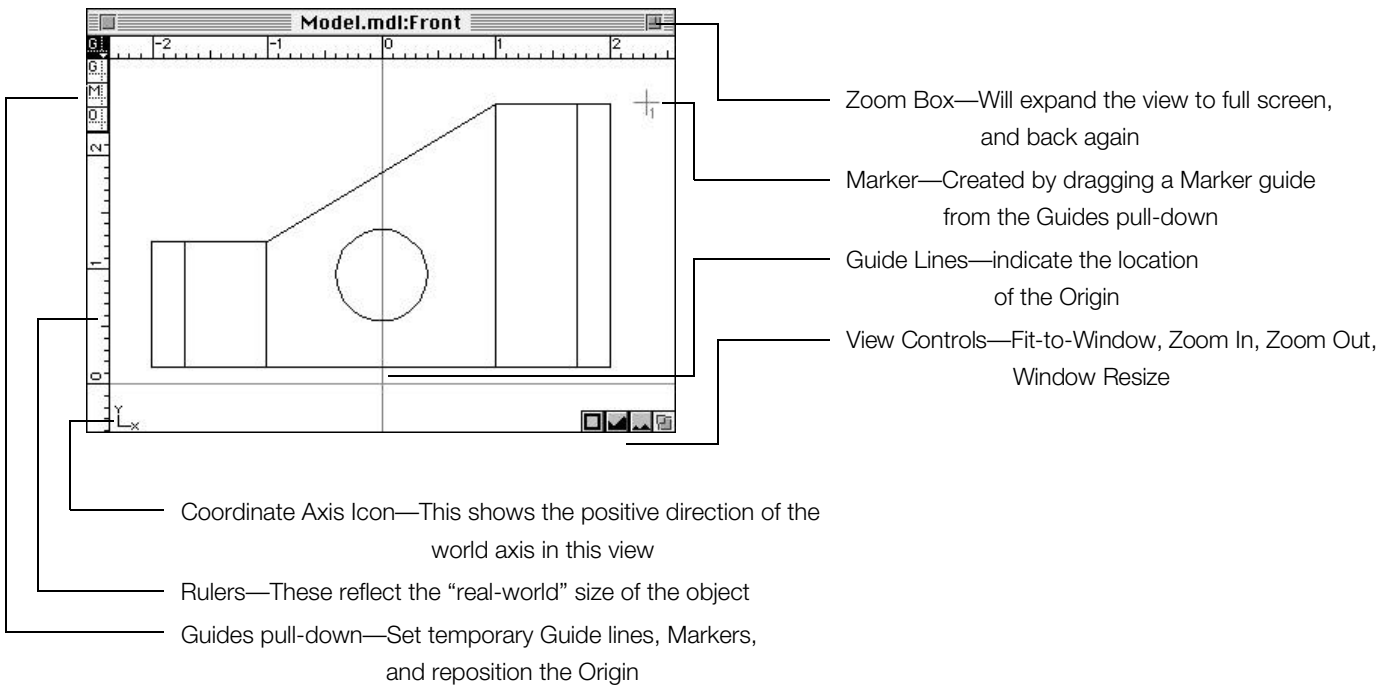
Boolean—Generate volumetric shapes which result from the intersection or union  
of two, or more 3-D objects



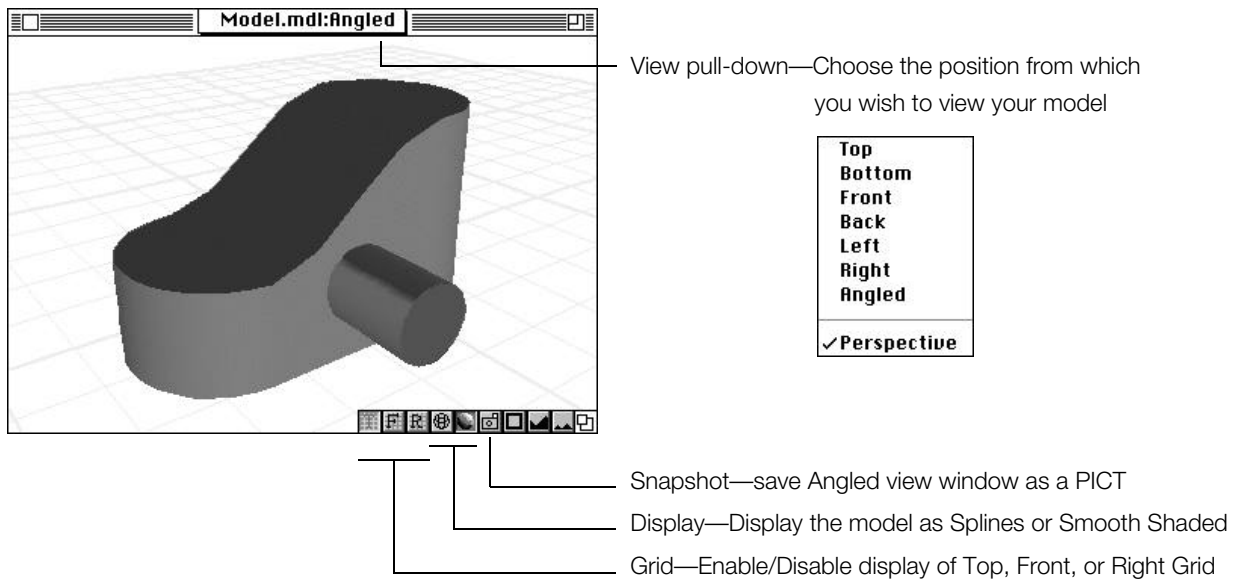
Drawing Options—Set object color, object filled/not filled, and drag protocol for  
quickdraw polygon and ellipse shapes (corner-to-corner,  
corner-to-center, and center-to-corner)

## View Windows

### Orthogonal Views

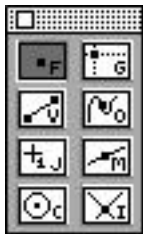


### Angled View



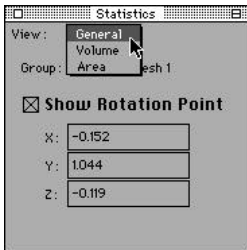
# Palettes

## Snap Palette

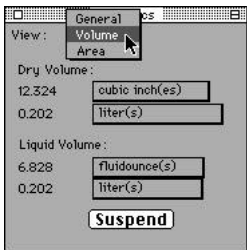


- Free—No snap
- Vertex—Snap to endpoints of lines and arcs
- Marker—Snap to nearest marker
- Center—Snap to Centers of circles and arcs
- Grid—Snap to intersection of grid lines
- On—Snap onto the object itself
- Midpoint—Snap to the midpoints of lines and arcs
- Intersection—Snap to the intersection of two objects

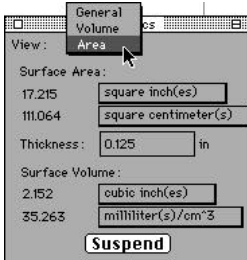
## Statistics Palettes



General—Enable/Disable display of selected Object Rotation Point, and precisely locate the Object Rotation Point



Volume—See Volumetric data for the selected item.  
Choose units displayed in palette from pull-down menus



Area—See information about the Surface Area for the selected item.  
Set “material thickness” to see Surface Volume information.  
Choose units displayed in palette from pull-down menus

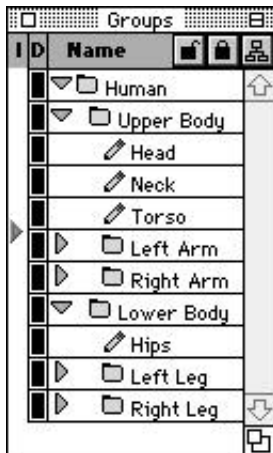


## Libraries Palette



Drag and Drop Library items into your model to ease building models with repetitive parts

## Groups Palette



Organize your data base to ease model-building and animation

## Status Line Palette



Look to the Status Line for helpful prompts while using tools, and to precisely locate the cursor in the orthogonal view Windows. (Prompt for Polygon tool shown)

## Tool Info Palette



The Tool Info palette is your access to precise use of the tools. This palette displays the relevant parameters for the tool currently in use. (Sweep Tool Info palette shown)