**ADDITIONAL HINTS FOR USE OF FORM•Z**

**PLANES**
Not only can you switch between the standard reference planes using the icon in the lower-left corner of the drawing window, you can create reference planes and name them for later reuse. For example, use the tool at the bottom of the tool bar to create a reference plane parallel to the XY plane, but at a height such as that of the table-top, bench, etc. You can save that plane for later recall by clicking in the empty place under the existing names in the Planes palette (shown at left) and typing in a new name.

Select from saved planes by clicking to the left of the desired plane name in the Planes palette (use the Palettes pull-down menu to make it visible if necessary).

**OBJECTS**
The Objects palette gives you another way of seeing the 3D data. Each time you make or copy an object, an entry is made in the Objects palette. You can use this palette to:
- Select/deselect objects by clicking along the left edge.
- Name objects according to their role/use/purpose (click on the name, then type a new name)
- Control object visibility, editability, and snapability using the three columns along the right edge.
- Change group membership by clicking and dragging objects into/out of groups.

BTW, "Ghosted" data is drawn as light gray lines, only in wire-frame, and is not snapable or editable, regardless of the other settings. Generally speaking you will probably **not** want to ghost objects, as this puts them in a kind of limbo (almost deleted, in a sense).

**LAYERS**
Layers may be familiar to many of you, as they are part of the organizational structure of most CAD programs. Use different layers to separate data according to any important issue. In our case you might put posts on one layer, beams on another, table supports on a third, etc.

As with individual objects, you can control the visibility, editability and snapability of everything on a given layer. This lets you see the main joists, for example, while only snapping to the table supports (assuming they are on different layers and the settings are correct).

Set the current layer, to which new objects will be assigned, by clicking along the left side.

**SURFACE STYLES**
Surface styles, or colors, are selected using this palette. While you can apply different colors in your models, it is recommended that you stay abstract (i.e., don't try to use representative colors), and stay away from red (it makes it hard to tell if something is selected if there are red objects in the scene).
INQUIRING ABOUT/CHANGING EXISTING DATA

When an object is created, current settings determine its color, layer, etc. To change these later, you will use one or more of the Attribute tools (third row up from the bottom of the Toolbar). These generally apply current settings (for color and layer) to existing data.

To find what layer something is on, where it is, how long an edge is, etc., you will use the Query tool (fifth row up, right side). Be sure to set the right Topological level, before selecting the Query command, as the resulting dialog box (i.e., what you can query/change) depends on this.

You can use the Query Object dialog box (middle tool at left) to change the color assigned to the object, or the layer on which it resides.

TOOL SETTINGS

Every tool with a red dot in the top right corner of the icon has Tool Options that you can change. There are two ways to see/change tool options. By default, the “Tool Options” palette opens in the upper-right corner of the screen. It shows the current settings of the selected tool. In addition, you can access a tool options dialog box for any tool by double-clicking on the tool icon.

Many tools have quite different effects depending on these option settings (and the effect of Topological levels).

MAKING COPIES

In the tutorials we covered how to use the MOVE tool with the SELF and COPY modifiers (4th row up, left side) to make additional copies of an object. What we didn’t cover is how to use the multi-copy setting to place multiple copies evenly spaced between two points—just what you need for joists.

To distribute a bunch of identical copies of an object uniformly (e.g., 16” oc) or to divide an interval into uniform pieces, use “MultiCopy” (highlighted at left). Double-click the icon to access the dialog box, also shown at left. Pick “Even Increment” (repeats the Move increment N times) or “Divide Distance” (divides the Move increment into N pieces). Set the right number of divisions (N) for your design, then use the MOVE command as we did before.