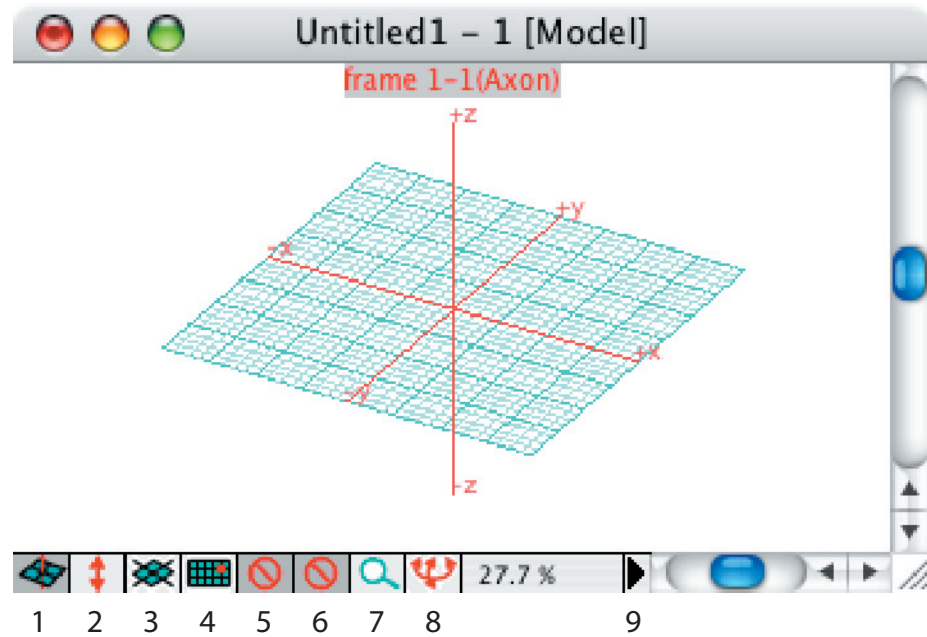


FormZ Tips

created by Phil Jones, edited by Nancy Cheng, University of Oregon 11/16/05

window tools:



1 set reference plane

use this to choose between standard reference planes.

2 perpendicular switch

use this to lock movements perpendicular to the reference plane. slightly darker grey means switch is on.

3 modify reference plane

use these tools to move, rotate and extend the reference plane

4 toggle grid

turns grid on and off. double click to change grid size. slightly darker grey means grid is on.

5 angle snaps

use this to lock movements to 90° or other angles

6 object snaps

like illustrator's smart guides. allows you to lock to specific aspects of objects

7 zoom tools

allow you to pan and zoom the view

8 view tools

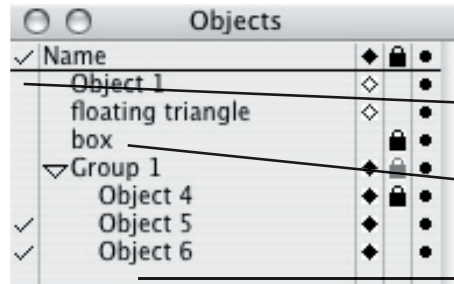
allow you to rotate and modify the viewing angle. set view is particularly useful.

9 navigate menu

allows you to move through the model

palettes:

use the palettes menu to show and hide palettes

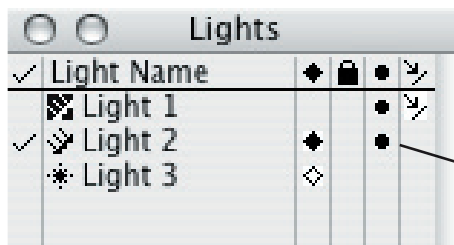


palettes all work pretty much the same way:

check mark indicates item is selected, click to toggle selection on and off

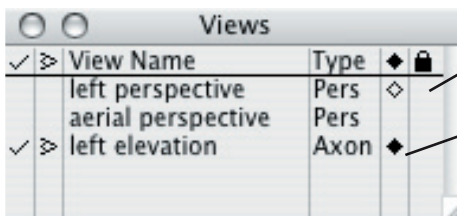
double click name of item to edit name and properties

click in palette under the last name to create a new item or (in object menu) group.



in lights palette, arrow and line indicate that light is casting shadows. click to toggle on and off.

in lights palette, circle indicates light is shining. click to toggle on and off.



lock icon indicates item is locked. click to toggle on and off

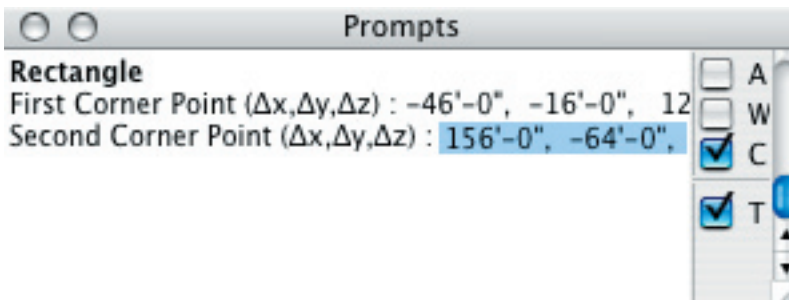
click diamonds to toggle visibility: black = visible, white = ghosted, missing = invisible



surface styles:

selected style (outlined in black) is applied to objects that you click on with the color tool

double click style to edit its name and properties



prompts:

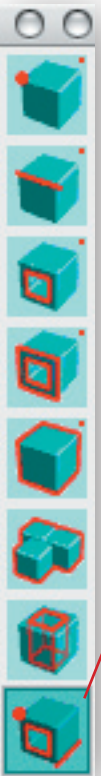
prompts palette displays information about the objects you are drawing or modifying. you can also type values here.

if your prompts palette is set up as shown, you can see the length and width of objects you are creating.



object type:
 setting for drawing tools
 (i.e., rectangle, vector line)

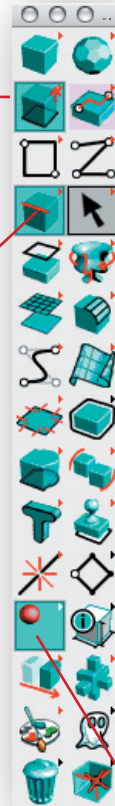
governs how new objects are created



topological level:
 setting for pick tool (and any tool that acts on existing objects)

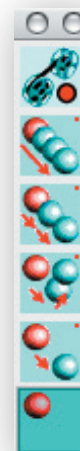
governs which level of an object form z will operate on

use the automatic setting to select different levels more intuitively. (to select an entire object in auto mode, hold option (PC: alt) and click on an edge of the object)



insertions:
 setting for drawing tools
 (i.e., rectangle, vector line)

like object type, except these add to or subtract from an existing object. requires you to prepick one (and only surface) to operate on.

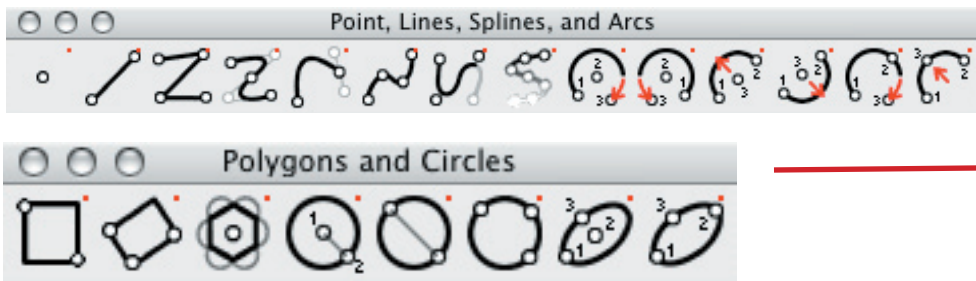


self/copy:
 setting for transformation tools

governs whether transformation tools modify a shape or create duplicates of it

FORM Z SWITCHES:

more info on these can be found in the form z help menu.



lines, polygons, et al:

use these to draw new objects. what type of object you make (2d surface, 3d extrusion, etc.) is determined by the setting of the "object type" and "insertions" switches. (see previous page).



transformations:

use these to move, rotate, scale, and mirror objects. follow the cues in the prompts palette. whether a transformation copies or just modifies an object depends on the setting of the "self/copy" switch (see previous page).

MODELING TOOLS:

more info on these can be found in the form z help menu.



pick tool:
use to select objects or parts of objects. multiple objects can be selected. to deselect an object, click it again. to deselct all objects, click on the background.

derivatives:

use to generate new objects from existing objects. double click tools to change how they work (and what they do with the original object)

use **terrain model** to generate 3d landforms from a topo map

use **3d ex-trude** to take a 2d surface (can be one surface of a 3d object) and extrude it.

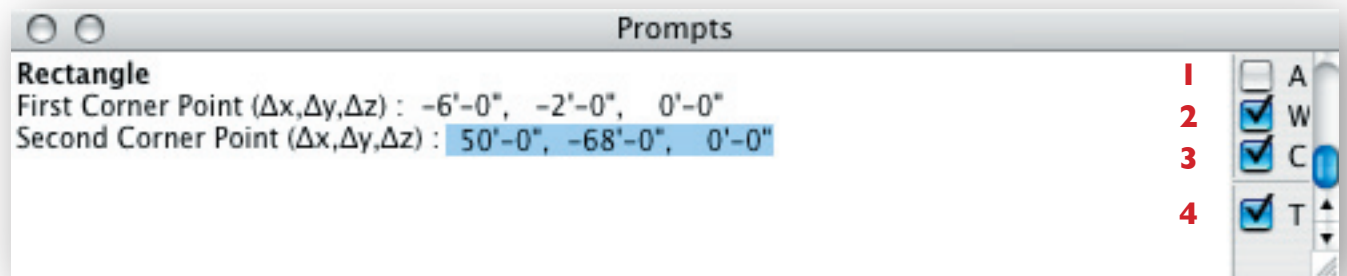


prompts:

prompts palette gives prompts telling you what to do to use the current tool.

palette also displays dimensions or position of objects you are drawing/moving and allows you to type in specific values. you don't need to click in the window, just start typing. make sure to use the format indicated by the prompts palette—in this case, Δx , Δy , Δz

default units are inches; type an apostrophe after the number to indicate feet



1 absolute:

if checked, means values are relative to the origin of the coordinate system (either reference plane or global)

when this is unchecked, values will be relative to the last picked location. this is handy for being able to easily create objects of specific dimensions, or to move objects a specific distance

3 cartesian:

if checked, form z will use the cartesian coordinate system (x,y,z)

if unchecked, it will use the polar system (distance + degrees)

it's usually more useful to leave this checked.

2 world:

if checked, means Δx , Δy , Δz are always in terms of the global axes (z = up)

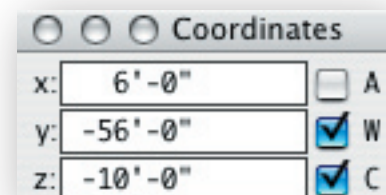
if unchecked, means the actual direction of Δx , Δy , Δz changes depending on the current reference plane.

it's probably less confusing to leave this checked.

4 tracking:

if checked, form z will track your mouse movements and display the current coordinates here.

it may be less confusing to leave this unchecked and use the coordinates palette to see what your mouse is doing, but it doesn't really matter.



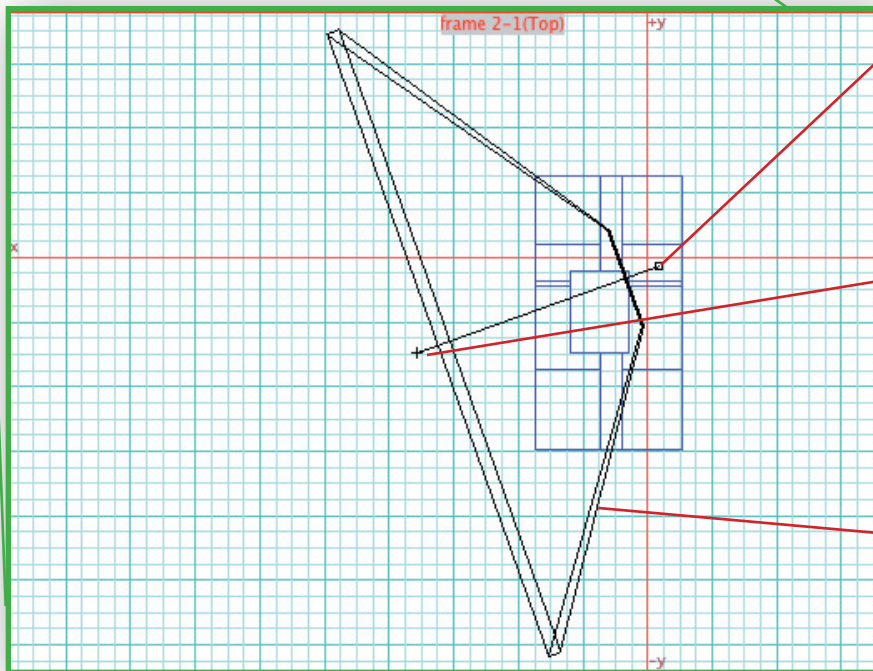
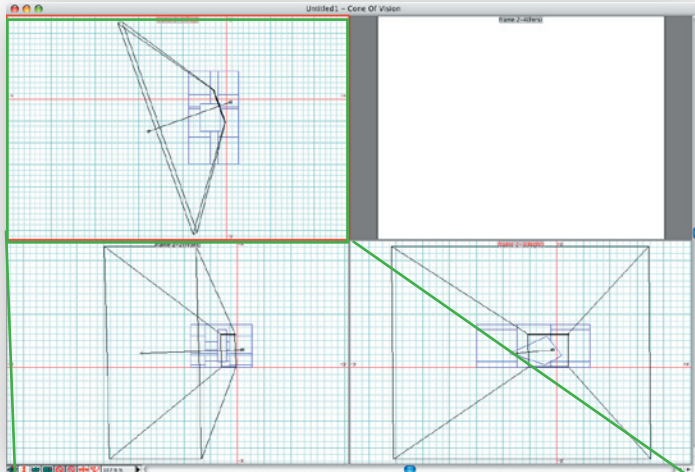
edit cone of vision

to enter edit cone of vision mode, select edit cone of vision from the view menu

use the different window frames to position the camera accurately (use top view to move and aim the camera in plan, front and right views to move and aim it up and down)

click in the views palette to save the current view

to exit, select edit cone of vision again from the view menu



eye point:

(camera position)

drag this (it looks like a little square) to move the physical position of your camera

center of interest:

(what the camera is pointing at)

drag this (it looks like a little plus sign) to aim your camera

view angle:

(a pyramid defining the area of the model that is visible)

drag here to zoom the camera in and out

to enter perspective mode, choose "perspective" from the view menu.

to return to axonometric mode, choose "axonometric".

cone of vision settings can also be adjusted numerically by selecting "view parameters" from the view menu. this is helpful if you accidentally spun your camera and you want it to go back to being level.