

### Large Tool Set

Select (Spacebar) Make Component

Paint Bucket (B) Eraser (E)

Line (L) Freehand

Rectangle (R) Rotated Rectangle

Circle (C) Polygon

Arc 2 Point Arc (A)

3 Point Arc Pie

Move (M) Push/Pull (P)

Rotate (Q) Follow Me

Scale (S) Offset (F)

Tape Measure (T) Dimensions

Protractor Text

Axes 3D Text

Orbit (O) Pan (H)

Zoom (Z) Zoom Window

Zoom Extents Previous

Position Camera Walk

Look Around Section Plane

### Dynamic Components

Interact Component Options

Component Attributes

### Sandbox (Terrain)

From Contours From Scratch

Smoove Stamp

Drape Add Detail

Flip Edge

### Standard Views

Iso Top

Front Right

Back Left

### Style

X-Ray Back Edges

Wireframe Hidden Line

Shaded Shaded with Textures

Monochrome

### Location

Add Location... Toggle Terrain

### Warehouse

3D Warehouse... Share Model...

Share Component... Extension Warehouse...

Send to LayOut (Pro) Classifier (Pro)

### Solid Tools

Outer Shell Intersect (Pro)

Union (Pro) Subtract (Pro)

Trim (Pro) Split (Pro)

**Middle Button (Wheel)**

Scroll Zoom  
 Click-Drag Orbit  
 Shift+Click-Drag Pan  
 Double-Click re-center view

Tool	Operation	Instructions
<b>2 Point Arc (A)</b>	Bulge	specify bulge amount by typing a number and Enter
	Radius	specify radius by typing a number, the R key, and Enter
	Segments	specify number of segments by typing a number, the S key, and Enter
<b>Circle (C)</b>	Shift	lock current inferences
	Radius	specify radius by typing a number and Enter
	Segments	specify number of segments by typing a number, the S key, and Enter
<b>Eraser (E)</b>	Ctrl	soften/smooth (use on edges to make adjacent faces appear curved)
	Shift	hide
	Ctrl+Shift	unsoften/unsmooth
<b>Follow Me</b>	Alt	use face perimeter as extrusion path
	<i>Expert Tip!</i>	first Select path, then choose the Follow Me tool, then click on the face to extrude
<b>Line (L)</b>	Shift	lock in current inference direction
	Arrows	lock direction; up = blue, right = red, left = green, and down = parallel/perpendicular
	Length	specify length by typing a number and Enter
<b>Look Around</b>	Eye Height	specify eye height by typing a number and Enter
<b>Move (M)</b>	Ctrl	move a copy
	Shift	hold down to lock in current inference direction
	Alt	auto-fold (allow move even if it means adding extra edges and faces)
	Arrows	lock direction; up = blue, right = red, left = green, and down = parallel/perpendicular
	Distance	specify move distance by typing a number and Enter
	External Copy Array Internal Copy Array	n copies in a row: move first copy, type a number, the X key, and Enter n copies in between: move first copy, type a number, the / key, and Enter
<b>Offset (F)</b>	Alt	allow results to overlap
	Distance	specify an offset distance by typing a number and Enter
<b>Orbit (O)</b>	Ctrl	hold down to disable "gravity-weighted" orbiting
	Shift	hold down to activate Pan tool
<b>Paint Bucket (B)</b>	Ctrl	fill material - paint all matching adjacent faces
	Shift	replace material - paint all matching faces in the model
	Ctrl+Shift	replace material on object - paint all matching faces on the same object
	Alt	hold down to sample material
<b>Push/Pull (P)</b>	Ctrl	push/pull a copy of the face (leaving the original face in place)
	Double-Click	apply last push/pull amount to this face
	Distance	specify a push/pull amount by typing a number and Enter
<b>Rectangle (R)</b>	Ctrl	start drawing from center
	Dimensions	specify dimensions by typing length, width and Enter ie. <b>20, 40</b>
<b>Rotated Rectangle</b>	Shift	lock in current direction/plane
	Alt	lock drawing plane for first edge (after first click)
	Dimensions, Angle	click to place first two corners, then type width, angle and Enter ie. <b>90, 20</b>
<b>Rotate (Q)</b>	Ctrl	rotate a copy
	Angle	specify an angle by typing a number and Enter
	Slope	specify an angle as a slope by typing a rise, a colon (:), a run, and Enter ie. <b>3 : 12</b>
<b>Scale (S)</b>	Ctrl	hold down to scale about center
	Shift	hold down to scale uniformly (don't distort)
	Amount Length	specify a scale factor by typing a number and Enter ie. <b>1.5</b> = 150% specify a scale length by typing a number, a unit type, and Enter ie. <b>10m</b>
<b>Select (Spacebar)</b>	Ctrl	add to selection
	Shift	add/subtract from selection
	Ctrl+Shift	subtract from selection
<b>Tape Measure (T)</b>	Ctrl	toggle create guide or measure only
	Arrows	lock direction; up = blue, right = red, left = green, and down = parallel/perpendicular
	Resize	resize model: measure a distance, type intended size, and Enter
<b>Zoom (Z)</b>	Shift	hold down and click-drag mouse to change Field of View