









# Mastercam® 2019

## QUICK REFERENCE CARD

ICON	FUNCTION	SHORTCUT	ICON	FUNCTION	SHORTCUT
	Analyze entities	F4		Motion controller rotation point	Alt+F12
	AutoSave	Alt+A		Multi-Threading Manager	Alt+M
	Run Add-In	Alt+C		Pan	Arrow keys
	Configure Mastercam	Alt+F8		Paste from clipboard	Ctrl+V
	Copy to clipboard	Ctrl+C		Planes Manager	Alt+L
	Cut to clipboard	Ctrl+X		Redo an event	Ctrl+Y
	Delete entities	F5		Rotate	Alt+Arrow keys
	Drafting options	Alt+D		Save	Ctrl+S
	Exit Mastercam	Alt+F4		Save as	Ctrl+Shift+S
	Fit geometry to screen	Alt+F1		Select all	Ctrl+A
	Grid settings	Alt+G		Shading on/off	Alt+S
	Gview-Back	Alt+3		Shading translucency on/off	Ctrl+T
	Gview-Bottom	Alt+4		Show/hide gnomons	Alt+F9
	Gview-Front	Alt+2		Show/hide axes	F9
	Gview-Isometric	Alt+7		Show/hide entity	Alt+E
	Gview-Left	Alt+6		Show/hide displayed toolpaths	Alt+T
	Gview-Previous Plane	Alt+P		Solids Manager	Alt+I
	Gview-Right	Alt+5		Toolpaths Manager	Alt+O
	Gview-Top	Alt+1		Un-zoom 80%	Alt+F2
	Help	Alt+H		Un-zoom to previous or 50%	F2
	Levels Manager	Alt+Z		Undo the last event	Ctrl+Z
	Set from entity	Alt+X		Zoom window	F1
	About Mastercam	Alt+V		Zoom/un-zoom by 5%	Pg Up/Pg Down

### Map any Mastercam function to a custom keyboard shortcut:

Choose File, Options, Customize Ribbon. Then click the Customize button to open the Customize Keyboard dialog box.

### Navigate to these websites to get more out of your Mastercam experience:

Mastercam Reseller Locator  
[mastercam.com/Resellers](http://mastercam.com/Resellers)

Mastercam Blog  
[blog.mastercam.com](http://blog.mastercam.com)

Mastercam U. Online Training  
[MastercamU.com](http://MastercamU.com)

Mastercam Learning Tools  
[tinyurl.com/MCAMLearning](http://tinyurl.com/MCAMLearning)

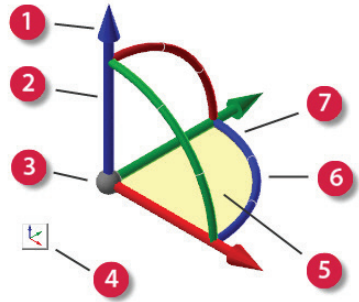
Mastercam Forum  
[forum.mastercam.com](http://forum.mastercam.com)

# ON-SCREEN EDITING TOOLS

## Dynamic Gnomon

The Dynamic Gnomon helps you manipulate geometry and planes interactively. The gnomon comprises three axes connected at an origin sphere. Choose from the selection points listed here to apply different types of transformations to either the gnomon or your selected geometry.

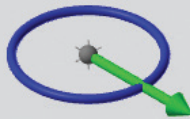
- |   |                            |   |           |
|---|----------------------------|---|-----------|
| 1 | Align                      | 5 | XY Orient |
| 2 | Translate Along            | 6 | 2D Rotate |
| 3 | 3D Translate/Polar         | 7 | 3D Rotate |
| 4 | Gnomon/<br>Geometry Switch |   |           |



See Mastercam Help for more information.

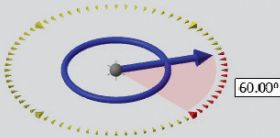
## Polar control

The Polar control consists of the origin sphere, a rotation compass, and a green single-axis arrow. It can rotate as well as edit the position of entities in the graphics window.



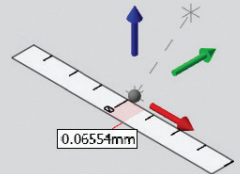
## Rotate control

The Rotate control can only rotate on-screen entities within the current Cplane. It consists of the origin sphere and a rotation compass.



## Delta control

The Delta control consists of the origin sphere and three single-axis arrows that can be manipulated independently.



Hover over any single-axis arrow until it highlights. Click and drag the arrow to a new position using the ruler to guide your placement.

To rotate entities on screen, hover over the blue circle until the rotation compass appears. Rotate the control or enter a value in the on-screen input field. Rotating from inside the compass allows you to snap to angular increments. Manipulating either control outside the compass ignores the snap control.

## Quick Masks

Quick Masks let you control entity masking with a single mouse click. Each Quick Mask button has two functions, depending on whether you click the left half or right half of the button. Hover your mouse over each button half to view its function.

- Click the left half of the Quick Mask button to immediately select all instances of the entity type.
- Click the right half of the same button to limit your individual selections to only the specific entity type.
- Use the Select All Advanced/Select Only Advanced Quick Mask button to open the Select All dialog box or the Select Only dialog box to filter selections by entity attributes.
- The right half of the Clear All Masking button clears all selection criteria from both the Select All and the Select Only dialog boxes.

