

# 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)

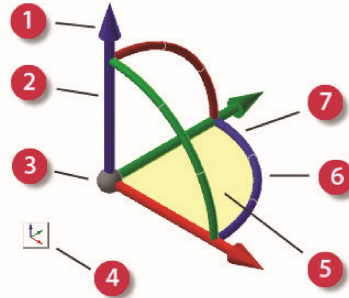
Mastercam Forum  
[forum.mastercam.com](http://forum.mastercam.com)

## 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.

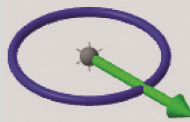
- |                                     |                    |
|-------------------------------------|--------------------|
| <b>1</b> Align                      | <b>5</b> XY Orient |
| <b>2</b> Translate Along            | <b>6</b> 2D Rotate |
| <b>3</b> 3D Translate/Polar         | <b>7</b> 3D Rotate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



See Mastercam Help for more information.

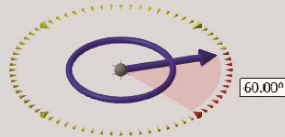
### Polar control

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.



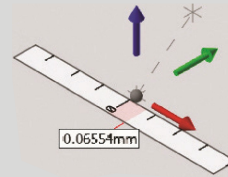
### Rotate control

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 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.

