

| ICON | FUNCTION | SHORTCUT | ICON | FUNCTION | SHORTCUT |
|------|-------------------------|----------|------|-------------------------------|----------------|
| | About Mastercam | Alt+V | | Pan | Arrow keys |
| | Analyze Entity | F4 | | Paste | Ctrl+V |
| | AutoSave | Alt+A | | Planes Manager | Alt+L |
| | Configure Mastercam | Alt+F8 | | Redo | Ctrl+Y |
| | Copy to clipboard | Ctrl+C | | Rotate | Alt+Arrow keys |
| | Cut to clipboard | Ctrl+X | | Rotate Position | Alt+F12 |
| | Delete Entities | F5 | | Run Add-In | Alt+C |
| | Divide | Shift+D | | Save | Ctrl+S |
| | Drafting Options | Alt+D | | Save As | Ctrl+Shift+S |
| | Exit Mastercam | Alt+F4 | | Select All | Ctrl+A |
| | Fit | Alt+F1 | | Set From Entity | Alt+X |
| | Grid Settings | Alt+G | | Shading toggle | Alt+S |
| | Gview-Back | Alt+3 | | Shading Translucency toggle | Ctrl+T |
| | Gview-Bottom | Alt+4 | | Show Axes | F9 |
| | Gview-Front | Alt+2 | | Show Gnomons | Alt+F9 |
| | Gview-Isometric | Alt+7 | | Show/hide displayed toolpaths | Alt+T |
| | Gview-Left | Alt+6 | | Solids Manager | Alt+I |
| | Gview-Previous View | Alt+P | | Toolpaths Manager | Alt+O |
| | Gview-Right | Alt+5 | | Trim to Entities | Shift+T |
| | Gview-Top | Alt+1 | | Trim to Point | Shift+P |
| | Help | Alt+H | | Unzoom 80% | Alt+F2 |
| | Hide/Unhide | Alt+E | | Unzoom Previous/50% | F2 |
| | Levels Manager | Alt+Z | | Undo | Ctrl+Z |
| | Modify Length | Shift+E | | Window | F1 |
| | Multi-Threading Manager | Alt+M | | | |

Map the above Mastercam functions to a custom keyboard shortcut:

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

Disable gnomon selection **G**

Snap to view toggle

S

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

Mastercam Website
[mastercam.com](https://www.mastercam.com)

Mastercam Blog
[mastercam.com/news/blog](https://www.mastercam.com/news/blog)

myMastercam
my.mastercam.com

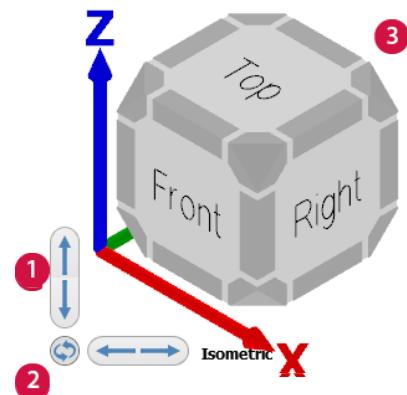
What's New in Mastercam
whatsnew.mastercam.com

Online Mastercam Training
my.mastercam.com/courses

ON-SCREEN EDITING TOOLS

Dynamic Gnomon/ Gview Cube

The Gview Cube is an augmented and more graphical way to show part and plane orientation. The Gview cube, relative to the WCS by default, also features options to control the view by clicking on the different faces and sides and thus the on-screen orientation of your part. You can right-click the cube to access the context menu that offers a variety of selections including toggling the Gview cube on and off.

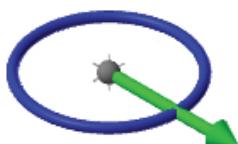


- 1 Arrow Buttons
- 2 Flip/ Rotate Button
- 3 Context Menu

See Mastercam Help for more information.

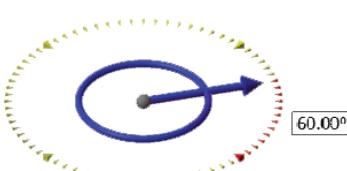
Polar control

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.



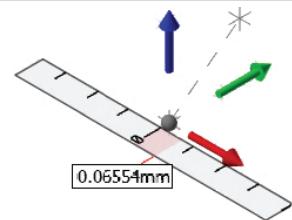
Rotate control

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.

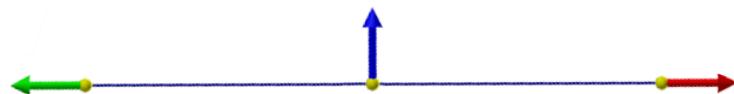


Hover over any single-axis arrow until it highlights. Click and drag the arrow to a new position using the ruler to guide your placement.

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.

Top-level editing

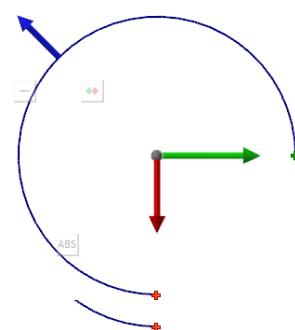
Directly edit wireframe geometry without interacting with a dialog box. Double-click an entity to enter the function. If no other function is active, a combination of spheres, arrows, and buttons display.



- Click and drag a sphere to move a point, line endpoint, or the center point of an arc.
- Click and drag the blue midpoint sphere to reposition a line or spline.

- Hover over a sphere to display the arrows.
- Click and drag the green or red arrows to shorten or lengthen a line or change the sweep angles of an arc. Splines can only be lengthened.
- Click and drag the blue arrow to create an offset parallel line/spline or change the radius of an arc.

-  • Toggle the **Move** button to move or copy a point, line, spline, or arc.
-  • The **Flip** button inverts an arc to display its complement.
-  • The **ABS/REL** button toggles the display of the sweep angle value of an arc between its absolute and relative values.



You cannot edit multiple entities with top-level editing. To do that, use the Analyze function. To display the **Analyze** dialog box from the top-level, press the **[End]** key. You can continue to use the new graphic controls as well as change entity attributes such as level, color, and line style. Press the **[End]** key again when you are finished.