

## Shortcut keys

For menu-free operation, start commands using shortcut keys. You can also [create or change shortcut key assignments](#).

### Conventions used in the table of shortcut keys below:

Convention	Indicates
< >	A variable, or something that you can type
{ }	An optional command argument
click	Click the left mouse button
middle-click	Click the middle mouse button or wheel
right-click	Click the right mouse button
wheel back	Rotate the wheel backward, where the top of the wheel rotates away from your palm
wheel forward	Rotate the wheel forward, where the top of the wheel rotates toward your palm

**Tip:** Spaces have significance in shortcut keys. For example, SS W1 and S SW1 have different meanings. SS W1 means to search and select W1, while S SW1 means to search for SW1.

### Default shortcut key assignments:

Shortcut	Function
F1	Help, context-sensitive.
F3	Interactive routing with dynamics enabled.
F4	Layer pair toggle during routing. F4 no longer repeats the last command.
F5	Zooms in, navigation window.
F6	Zooms out, navigation window.
F7	Swaps workspace and navigation window contents.
F8	Locks view, navigation window.
F9	Autorouting, start.
F10	Autorouting, resume.
F11	Autorouting, pause.
F12	Autorouting, stop.
AA	Routing angle, sets to any angle, no angle restrictions.
AD	Routing angle, sets mode to Diagonal, 45 degree angles only.
AO	Routing angle, sets mode to Orthogonal, 90 degree angles only.
BLT	Bug Log Test. Reproduces a session from session media created by the Bug Media Wizard.
BMW	Bug Media Wizard. Creates session media for your current or previous session.
DP	Distinguishes protected objects. Displays outline of protected objects.
DRC	DRC mode on or off.
E	End Via mode cycle: <ul style="list-style-type: none"> <li>• End No Via (where a trace ends in space).</li> <li>• End Via (where a trace ends with a via).</li> <li>• End Test Point (where a trace ends with a test point via).</li> </ul>

G <x> {<y>}	All grids set, except the display grid.
GC <x> {<y>}	Component grid setting.
GD <x> {<y>}	Display grid setting.
GF <x> {<y>}	Fanout grid setting.
GR <x> {<y>}	Routing grid setting.
GS	Snap to routing grid on or off.
GT <x> {<y>}	Test point grid setting.
GV <x> {<y>}	Via grid setting.
H {<net>}	Net highlighting on or off. If you specify a net, you can substitute alphanumeric characters in the net name with the ? * and [] regular expression pattern operators. For examples, see <a href="#">Expressions in shortcut keys</a> .
HD	Net highlighting on or off. Dims objects.
HG	Net highlighting on or off. Grays objects.
HH	Net highlighting on or off. Sets the display to crosshatch selected nets.
HO	Net highlighting on or off for the selected object.
I	Distinguish protected objects on and off. Displays outline of protected objects.
L <n>	Layer, set current layer to the number or name you enter, for example, L 2 or L top.
O	Showing object outlines only toggles with showing filled objects.
PA	Pause mode on or off.
PB	Push trace behind on or off, interactive routing.
PC	Plow after click mode, interactive routing.
PL <n1> <n2>	Paired layers setting. <n1> and <n2> can be the layer number or name, for example, PL 1 2 or PL top bottom.
PO	Hatch and pour outline visibility on or off.
PP	Plow with pointer mode, interactive routing.
PR	Plower rip up mode, interactive routing.
PX	Plowing disabled, differential pair routing.
R <n>	Traces appear at real width.
RAD <radius>	Arc radius set to the <radius> value, for example, RAD 45.
Q	Quick measure. Attaches a measurement line to the pointer and displays dx, dy, and hypotenuse information, depending on pointer movement.  For more information about using the Q shortcut key, see <a href="#">Measuring distance between objects</a> .
S <x> <y>	Search absolute. Moves pointer to the specified X and Y coordinates.
S <s>	Search string. Moves pointer to the named object, for example S U3.10. You can substitute alphanumeric characters in the object name with the ? * and [] regular expression pattern operators. For examples, see <a href="#">Expressions in shortcut keys</a> .

SR <x> <y>	Search relative. Moves pointer by the specified X and Y offset, for example SR -100 -50.
SRX <x>	Search relative X at current Y. Moves pointer by the specified X offset.
SRY <y>	Search relative Y at current X. Moves pointer by the specified Y offset.
SS <s>	Search and select. Moves the pointer to the named object, then selects it, for example SS U3. You can substitute alphanumeric characters in the object name with the ? * and [] regular expression pattern operators. For examples, see <a href="#">Expressions in shortcut keys</a> .
SX <x>	Search absolute X at current Y. Moves pointer to the specified X coordinate and the current Y coordinate.
SY <y>	Search absolute Y at current X. Moves pointer to the specified Y coordinate and the current X coordinate.
T	Transparent mode on or off.
U	Unroute display on or off.
V <name>	Via type set to the name you enter.
VA	Via type set to automatic via selection.
VG	Via guide on or off.
VP	Via type set to partial vias only.
VT	Via type set to through-hole vias only.
W<n>	Trace width, changes current value to the number you enter, for example, W 5.
Z	Quick layer view. With no command arguments, Z displays the initial layer view.
Z { +<layer> } { -<layer> }	Add or remove layer from the current set of displayed layers. Examples: <ul style="list-style-type: none"> <li>• Z +0 makes the outside layers visible, but does not change visibility of other layers.</li> <li>• Z -0 makes the outside layers invisible, but does not change visibility of other layers.</li> <li>• Z -2 +0 makes invisible layer 2 and makes visible the outside layers.</li> </ul>
Z <n-m>	View only the range of layers you type. For example, Z 2-4 displays layers 2, 3, and 4. Do not enclose the range with square brackets.
Z <layer n> { <layer m> ... }	View only the layers you type. For example, Z 2 4 U displays layers 2, 4, and unroutes.
Z *	View all layers.  <b>Restriction:</b> Z supports only the asterisk * regular expression.
Z 0	View only items that are visible on all layers. Items placed on layer 0 are visible on all layers.
Z A	View all layers.
Z B	View only the bottom layer.
Z C	View only the current layer.
Z D	View all documentation layers.
Z E	View all electrical layers.  <b>Tip:</b> You can also display an individual electrical layer (using Z C to make the current layer visible) and then switch the display to an adjacent electrical layer (using Alt+wheel backward or Alt+wheel forward), skipping any non-electrical layers.
Z I	View all internal layers.

Z O	View only the outside layers, that is, the top and bottom layers.
Z R <name>	Restore a quick layer view configuration. For example, Z R L23 restores the configuration stored as L23.  <b>See also:</b> Z S.
Z S <name>	Saves the current set of displayed layers as a quick layer view configuration. For example, Z S L23 stores the current configuration as L23. The quick layer view configuration is available until you exit the program.  <b>See also:</b> Z R.
Z T	View only the top layer.
Z U	View unroutes that are visible on all layers.
Down arrow	Pointer moves down.
Left arrow	Pointer moves left.
Right arrow	Pointer moves right.
Up arrow	Pointer moves up.
Backspace	Unroute or backup.
Delete	Unroute selected object.
End	Redraw.
Escape	Cancel.
Home	Zooms to board. Fits the board outline into the workspace.
Insert	Pans workspace to pointer.
Keypad 0	Pans workspace to pointer.
Keypad 1	Redraw.
Keypad 2	Pans workspace down one line.
Keypad 3	Zooms out at pointer.
Keypad 4	Pans workspace left one line.
Keypad 5	Pans workspace to board center.
Keypad 6	Pans workspace right one line.
Keypad 7	Zooms to board. Fits the board outline into the workspace.
Keypad 8	Pans workspace up one line.
Keypad 9	Zooms in at pointer.
Click	<ul style="list-style-type: none"> <li>• Select object.</li> <li>• Zooms in at pointer (zoom mode).</li> <li>• Adds corner (interactive routing).</li> <li>• Complete (interactive routing, when pointer is near a valid completion point).</li> </ul>
Click+ cancel drag	Cancel area selection.
Double -click	<ul style="list-style-type: none"> <li>• Properties for current object.</li> <li>• Complete, interactive routing, when pointer is near a valid completion point.</li> <li>• Ends accordion, interactive routing.</li> </ul>
Click+	Complete area selection.

end drag	
Click+ start drag	Starts area selection.
Middle- click	Centers view (do not move pointer).
Middle- click drag	Zooms area in or out. Drag pointer up to zoom in. Drag pointer down to zoom out.
PageDown	Zooms out at pointer.
PageUp	Zooms in at pointer.
Right-click	<ul style="list-style-type: none"> <li>• Opens shortcut menu.</li> <li>• Zooms out at pointer, zoom mode.</li> </ul>
Spacebar	<ul style="list-style-type: none"> <li>• Select object.</li> <li>• Zooms in at pointer, zoom mode.</li> <li>• Adds corner, interactive routing.</li> </ul>
Tab	<ul style="list-style-type: none"> <li>• Selects adjacent objects in a cycle.</li> <li>• Rotates component, component move mode.</li> <li>• Shows the length of the alternate trace in the differential pair. Use this with the trace length monitor to check the length of each member of the differential pair.</li> <li>• Switches trace, route separately mode.</li> </ul>
Wheel backward	Pans workspace down one line.
Wheel forward	Pans workspace up one line.
Alt+A	Adds arc, interactive routing.
Alt+Arrow down	Changes current layer to next layer in list.
Alt+Arrow up	Changes current layer to previous layer in list.
Alt+D	Opens DRC Settings dialog box.
Alt+Enter	Opens Properties dialog box for selected object or, if no object is selected, for the design.
Alt+G	Snap to routing grid on or off.
Alt+I	Inverts arc, interactive routing.
Alt+click	Highlighting on or off.
Alt+ click+drag	Highlights objects in the enclosed area.
Alt+ middle-click	Pans the board area below the pointer to the center of the workspace.
Alt+N	Next view appears in the view buffer.
Alt+P	Previous view appears in the view buffer.
Alt+R	Adds arc of radius, interactive routing. Set the radius with the RAD shortcut.
Alt+S	Zooms to selection.

Alt+wheel backward	Changes current layer to next in list.
Alt+wheel forward	Changes current layer to previous in list.
Alt+X	Explains last DRC error (component move mode).
Ctrl+A	Selects all board objects.
Ctrl+B	Zoom to board. Fits the board outline into the workspace.
Ctrl+D	Redraw.
Ctrl+E	Move component.
Ctrl+F	Full screen toggle.
Ctrl+H	Highlights object.
Ctrl+I	Spins component.
Ctrl+L	Length monitor on or off.
Ctrl+M	Runs length minimization.
Ctrl+N	New file.
Ctrl+O	Open file.
Ctrl+P	Print file.
Ctrl+Q	Opens Properties dialog box.
Ctrl+R	Rotates component 90 degrees.
Ctrl+S	Save file.
Ctrl+U	Removes highlighting from object.
Ctrl+V	Paste.
Ctrl+W	Zoom mode on or off.
Ctrl+X	Cut.
Ctrl+Y	Redo.
Ctrl+Z	Undo.
Ctrl+Enter	Opens the Options dialog box.
Ctrl+click	<ul style="list-style-type: none"> <li>• Toggles object selection.</li> <li>• End, interactive routing.</li> </ul>
Ctrl+PageDown	Resets length monitor to zero, interactive routing.
Ctrl+Tab	Cycles through the via pair patterns, differential pair routing.
Ctrl+wheel backward	Zooms out at pointer.
Ctrl+wheel forward	Zooms in at pointer.
Ctrl+Alt+A	Automatic pan display on or off.
Ctrl+Alt+C	Opens the Display tab of the Options dialog box.
Ctrl+Alt+D	Opens the Options dialog box.
Ctrl+Alt+E	Zooms to extents. Fits all objects in the design into the workspace.
Ctrl+Alt+F	Full screen mode toggle.
Ctrl+Alt+G	Opens the Options dialog box.
Ctrl+Alt+N	View nets.
Ctrl+Alt+P	Previous view in the view buffer.
Ctrl+Alt+S	Zooms to selection. Fits the selected objects into the workspace.
Ctrl+Alt+wheel backward	Pans workspace down one pixel.

Ctrl+Alt+wheel forward	Pans workspace up one pixel.
Shift+A	Accordion beginning, interactive routing mode.
Shift+C	Checks clearance.
Shift+D	Dynamics mode on or off, interactive routing.
Shift+E	Toggles the display of the estimated length (Et) in the length monitor between pin pair length and net length.
Shift+F	Flips component.
Shift+G	Guard bands on or off.
Shift+I	Runs database integrity test.
Shift+P	Projects objects.
Shift+R	Switches rules.
Shift+S	Stretch, interactive routing mode.
Shift+U	Unprotects objects.
Shift+X	Split pair around obstacle, routing differential pairs.
Shift+Z	Routes separately, routing differential pairs.
Shift+click	Adds via, interactive routing.
Shift+middle-click	Dynamic pan.
Shift+wheel back	Pans workspace right one line.
Shift+wheel forward	Pans workspace left one line.
Shift+Alt+wheel backward	Pans workspace right one pixel.
Shift+Alt+wheel forward	Pans workspace left one pixel.