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# Tilde (~) Commands for Routing

The following commands pertain to the Interactive Router in Altium Designer.  This list is based upon version AD20.

Atium also provides an Interactive Differential Pair Router and an Interactive Multi-Routing router.  Many of the commands shown in this document are applicable to these two other routers.

The commands listed were presented in the Nine Dot Connects' Routing Webinar.  This one hour presentation can be found:  https://www.ninedotconnects.com/webinar-routing-tools

Methods to start the interactive router:

| UI | Command | Notes | Timestamp |
|---|---|---|---|
| Icon |  Interactively Route Connections | | 8:27 |
| Menu | Place >> Trace | This is a legacy holdover when the routing commands were under the Place menu. | 8:06 |
| Menu | Route >> Interactive Routing | | 7:25 |
| Short Cut | Ctrl-W | | 7:30 |
| Short Cut | 'P' , 'T' | This is a legacy holdover when the routing commands were under the Place menu. | 8:18 |
| Short Cut | 'U' , 'T' | | 7:50 |

Cursor Look/Feel during Routing

| | Command | Options | Timestamp |
|---|---|---|---|
| Cursor Style | Preferences >> PCB Editor >> General Topic:  Cursor Type | • Small 90 ('+')(Default)<br>• Large 90('+')<br>• Small 45 ('X') | |
| Panning | Preferences >> PCB Editor >> General Topic: AutoPan Options | • **Re-Center** - Recenters the cursor to the center upon approaching the edge of the layout screen<br>• **Fix Size Jump** - The number of step sizes to move the cursor during pan. | 7:10 |

| | | • **Shift Accelerate** - Accelerates the speed of the panning<br>• **Shift Decelerate** - Decelerates the of the panning<br>• **Ballistic** - The harder to press against the edge, the faster it will go<br>• **Adaptive** - Based on the pixels/sec - allows for a common speed regardless of zoom | |
|---|---|---|---|

The following are the commands that can be used within the routing command.

Tilde (~) key can only be used when the route has been started.

The properties menu can be accessed at any time during the routing command.  Press the TAB key to pause the command and access the properties panel.

| COMMAND | SHORTCUT | Tilde menu | Properties Panel | Notes | Timestamp |
|---|---|---|---|---|---|
| Help | F1 | ✓ | ✓ | | 18:13 |
| Pause Interactive Process | Tab | ✓ | As a result of using the TAB key | | 9:12, 17:50 |
| Suspend | Esc | ✓ | | | 13:07, 18:00 |
| Commit | Enter | ✓ | If entering data into a text box | | 12:50, 18:03 |
| Undo Commit | BkSp | ✓ | | | 11:50, 18:12 |
| Autocomplete Segments To Target | CTRL+Click | ✓ | | | 19:40 |
| Look Ahead Mode | 1 | ✓ | | | 20:42 |
| Toggle Elbow Side | Space | ✓ | | | 9:47 |
| Cycle Corner Style | Shift + Space | ✓ | ✓ | | 11:26 |

| COMMAND | SHORTCUT | Tilde menu | Properties Panel | Notes | Timestamp |
|---------|----------|------------|------------------|-------|-----------|
| Toggle Routing Mode | Shift + R | ✓ | ✓ | | 23:00, 25:37 |
| Toggle Loop Removal | Shift + D | ✓ | ✓ | | 28:56 |
| Show Clearance Boundaries | Ctrl + W | ✓ | ✓ | | 31:56 |
| Toggle 'Follow' Mode | Shift + F | ✓ | | | 34:05 |
| Choose Favorite Width | Shift + W | ✓ | ✓ | | 36:22 |
| Choose Favorite Via Size | Shift + V | ✓ | | | 52:18 |
| Cycle Track - Width Source | 3 | ✓ | ✓ | (Shows in preview mode) | 35:35 |
| Cycle Via - Size Source | 4 | ✓ | ✓ | (Show in preview mode) | 52:04 |
| Next Layer | Num + | ✓ | ✓ | | 39:09 |
| Next Layer | Num * | ✓ | | | 39:09 |
| Previous Layer | Num - | ✓ | ✓ | | 39:48 |
| Select Layer | Ctrl + L | ✓ | | | 40:24 |
| Switch Layer For Current Trace | L | ✓ | | Must start on an existing via. | 40:40 |
| Drop a Via | Ctrl + Shift + Mouse scroll | | | | 41:17 |
| Add Fanout Via and Suspend | Num / | ✓ | | (tilde (~) menu does not display 'Num' part of the shortcut) | 44:00 |
| Add Via (No Layer Change) | 2 | ✓ | | | 44:48 |

| COMMAND | SHORTCUT | Tilde menu | Properties Panel | Notes | Timestamp |
|---|---|---|---|---|---|
| Change Routing Transition | 6 | ✓ | | | 42:56 |
| Select Routing Transition | 8 | ✓ | | | 43:42 |
| Next Routing Target | 7 | ✓ | | | 45:19 |
| Swap to Opposite Route Point | 9 | ✓ | | | 46:55 |
| Add Accordions | Shift + A | ✓ | | | 47:48 |
| Toggle Length Gauge | Shift + G | ✓ | ✓ | | 49:18 |
| Cycle Glossing Effort | Shift + Ctrl + G | ✓ | ✓ | | 14:28, 24:33 |