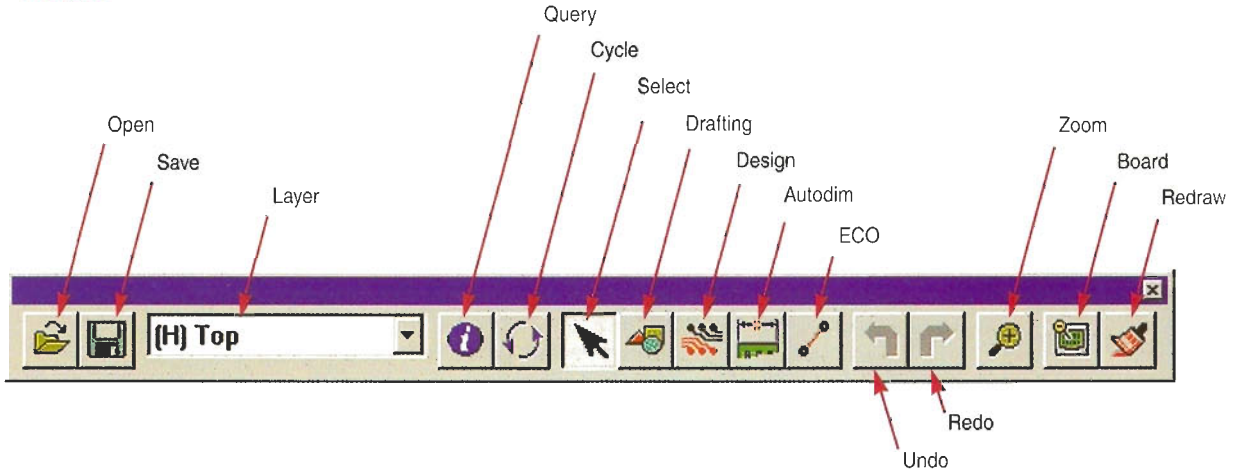


PowerPCB

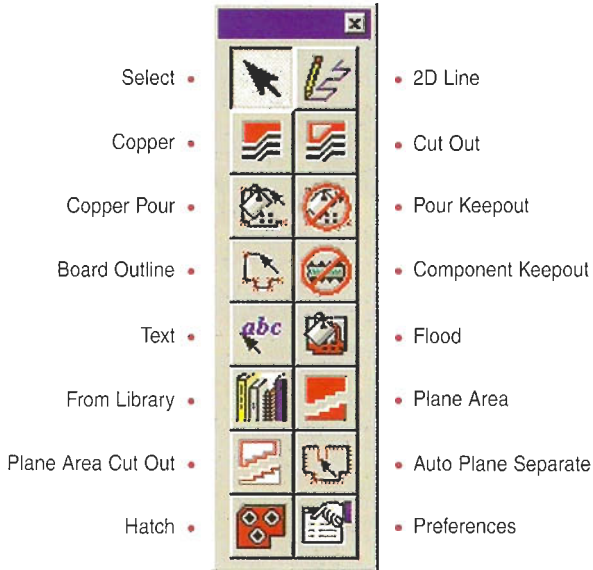
Quick Reference Card

Quick Reference Card

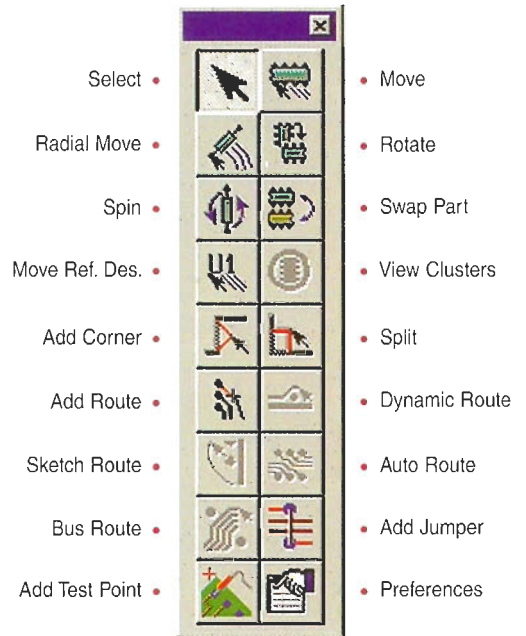
Toolbar













Drafting Toolbox





















Design Toolbox



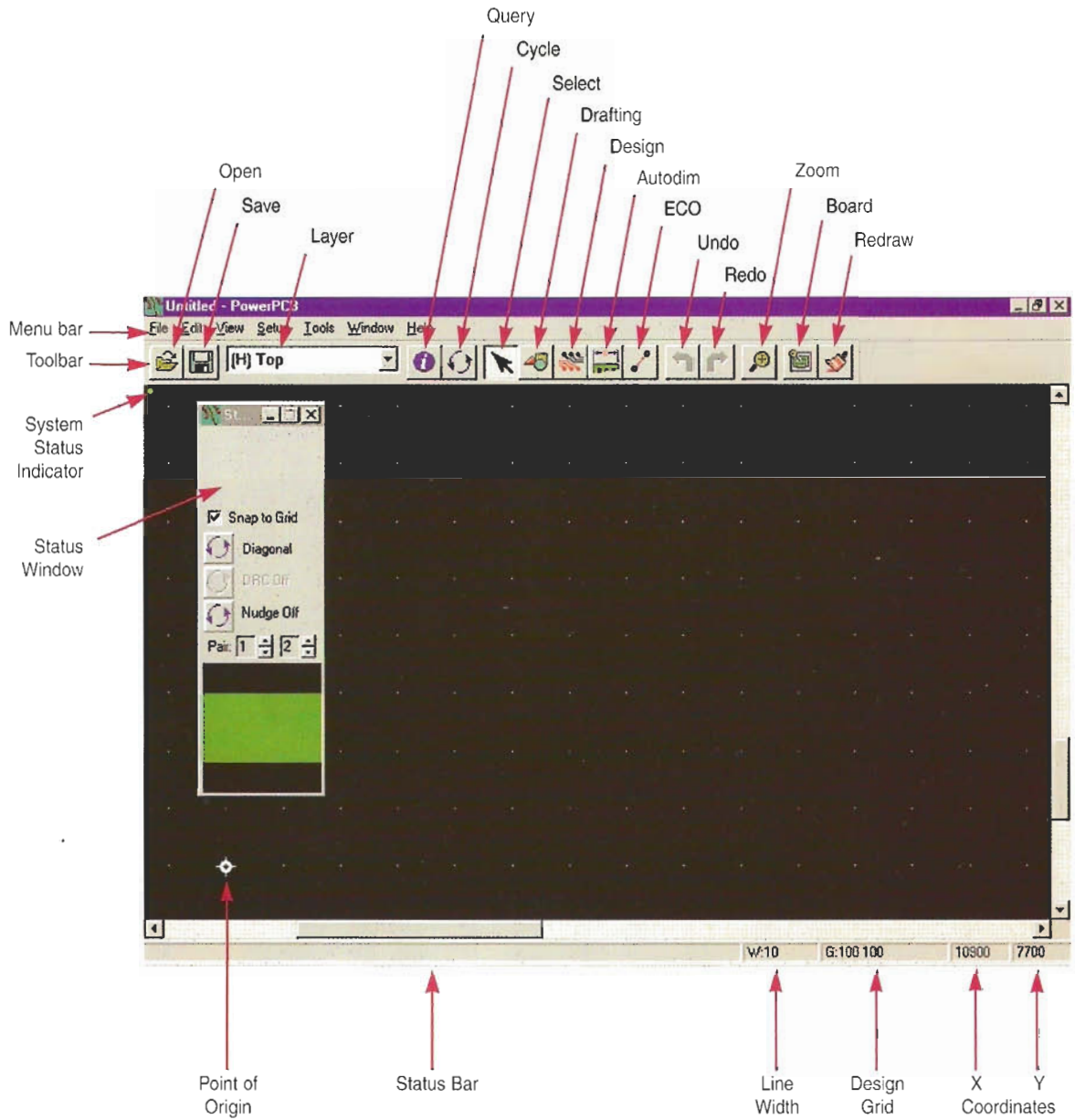
Autodimensioning Toolbox

| | | | |
|--------------|---|---|---------------|
| Select • |  |  | • Auto |
| Horizontal • |  |  | • Vertical |
| Aligned • |  |  | • Rotated |
| Angular • |  |  | • Arc |
| Leader • |  |  | • Preferences |

ECO Toolbox

| | | | |
|--------------------------|---|---|---------------------|
| Select • |  |  | • Add Connection |
| Add Route • |  |  | • Add Component |
| Rename Net • |  |  | • Rename Component |
| Change Component • |  |  | • Delete Connection |
| Delete Net • |  |  | • Delete Component |
| Swap Pin • |  |  | • Swap Gate |
| Setup Rules • |  |  | • Auto Renumber |
| Auto Swap Pin • |  |  | • Auto Swap Gate |
| Auto Terminator Assign • |  |  | • Preferences |

GUI View



Modeless Commands

| | | | |
|--------|---|----------|--|
| Note: | (X,Y) = coordinates; (s) = text; (n) = number. | OH | Outline with high resolution (default). Displays all objects with their true shape. |
| ? | Show this help topic. | OL | Outline with low resolution. Displays round and oval pads with squared corners. |
| AA | Any angle. | PL<n><n> | Paired Layer command. Where <n> can be layer numbers or layer names (ex. PL 1 2 or PL top bottom). |
| AD | Diagonal angle. | PO | Pour outline on/off. |
| AO | Orthogonal angle. | Q | Quick Measure command. Quick Measure snaps to the design grid when Grid Snap is on. Measurements are gridless when Grid Snap is off. (see ** below) |
| C | Complementary format. Type C and press Enter change the display to a complementary format to view thermals and anti-pads on plane layers. Type C a second time and press Enter to restore the normal noncomplementary view. | QL | Quick Length. Area select the routes items you want to measure; such as route segments, nets, or pin-pairs. Type QL and press Enter. A report of the route item lengths for routed, unrouted, and total length appears in the default text editor. |
| D | Displays current level last. | R<n> | Minimum display width to <n>; for example, R50. |
| DO | Drills outline on/off. | RE<n> | Multiple redo command (1-100), <n> is optional. (ex. RE2) RE will redo 1 time. |
| DRI | Ignore Clearance. | S<n><n> | Search absolute at <n> <n>; for example S1000 1000. |
| DRO | Turn off DRC Mode. | S<s> | Search for refdes/pin <s>; for example SU1.1 or SU1. |
| DRP | DRC Prevent. | SH | Toggles Shove mode on/off. |
| DRW | DRC Warn. | Spacebar | Activates a left mouse button click (to add corners, select items, complete etc.) at the current cursor location. |
| E | Toggle between end via and end no via modes. | SPD | Displays generated plane data for split/mixed planes. This command controls an option in the Split/Mixed Plane tab of the Preferences dialog box. |
| F<s> | View file <s>. (ex. F c:\windows\powerpcb.ini). | SPI | Displays plane thermal indicators. This command controls an option in the Split/Mixed Plane tab of the Preferences dialog box. |
| G<xx> | Grid global setting. (Sets the Design and Via grids simultaneously; for example G25, G8.3 or G16-2/3, G25 25.) | SPO | Displays plane polygon outlines for split/mixed planes. This command controls an option in the Split/Mixed Plane tab of the Preferences dialog box. |
| GD<xx> | Dot grid setting; for example GD8-1/3, GD25 25, or GD100. | SR<n><n> | Search relative X and Y, for example SR-200 100. |
| GP | Polar grid on and off. Use the polar grid for Radial Move and circular component arrays. | SRX<n> | Search relative X, for example SRX300. |
| GR<xx> | Design grid setting; for example, GR8-1/3, GR25 25, G25. | SRY<n> | Search relative Y, for example SRY400. |
| GV<xx> | Via grid setting; for example GV8-1/3, GV25 25, or GV25. | SS<s> | Search and Select by reference designator, for example SSU10. Use the SS modeless command to select components by name. In Object mode, SS selects the component and places the cursor at the component location. In Move Verb mode, the selected component is moved to the current cursor location. |
| HC | Circle shape draw mode. | SX<n> | Absolute move to <n>, current Y; for example SX300. |
| HH | Path shape draw mode. | | |
| HP | Polygon shape draw mode. | | |
| HR | Rectangle shape draw mode. | | |
| I | Runs Database Integrity Test. | | |
| L<n> | Changes current layer to <n>. <n> can be a number or name, for example (L2) or (L top). | | |
| N<s> | Highlights net <s>, for example NGND. | | |
| O<r> | Displays a transparent outline of pads and traces. Traces are displayed at their true width, to the limits of the global preference Minimum Displayed Width. The Resolution <r> options let you change the display resolution for faster redraws of very large dense designs. | | |

| | |
|---------|--|
| SY<n> | Absolute move to <n> current X; for example SY400. |
| T | Toggle Transparent Mode. |
| UN<n> | Multiple undo command (1-100), <n> is optional. (ex. UN2) UN will undo 1 time. |
| V<name> | Selects via type, for example V standard via. |
| VA | Automatic via selection. |
| VP | Use partial via. |
| VT | Use through hole via. |
| W<n> | Changes width to <n>; for example W5. |
| X | Text outline on/off. |

** To use Quick Measure to measure a distance:

1. Set Grid Snap on or off.
2. Place the cursor at the location to measure from.
3. Type Q and press Enter.
4. Move the cursor to the location(s) to measure to. Attached the cursor is a continually updated readout for the X distance, the Y distance, and the delta distance.
5. Click the right mouse button and click Cancel to finish.

Shortcut Keys

Control Shortcut Keys

| | |
|--------|---------------------|
| Ctrl-A | Save as |
| Ctrl-B | View board |
| Ctrl-C | Copy |
| Ctrl-D | Redraw |
| Ctrl-E | Move |
| Ctrl-F | Flip selected |
| Ctrl-G | Create union |
| Ctrl-H | Highlight |
| Ctrl-I | Spin selected |
| Ctrl-J | Route loop |
| Ctrl-K | Create cluster |
| Ctrl-L | Align component |
| Ctrl-M | Length minimization |
| Ctrl-N | New file |
| Ctrl-O | Open file |
| Ctrl-P | Not in use |
| Ctrl-Q | Query/Modify |
| Ctrl-R | Rotate selected |
| Ctrl-S | Save |
| Ctrl-T | Not in use |

| | |
|----------------|--|
| Ctrl-U | Unhighlight |
| Ctrl-V | Paste |
| Ctrl-W | View zoom mode |
| Ctrl-X | Cut |
| Ctrl-Y | Stretch |
| Ctrl-Z | Undo |
| Ctrl-Alt-C | Display colors setup |
| Ctrl-Alt-D | Design tab of Preferences dialog box |
| Ctrl-Alt-E | View extents |
| Ctrl-Alt-F | Selection filter |
| Ctrl-Alt-G | Global tab in the Preferences dialog box |
| Ctrl-Alt-J | Add jumper |
| Ctrl-Alt-M | Toggle menu bar |
| Ctrl-Alt-N | View nets |
| Ctrl-Alt-P | View previous |
| Ctrl-Alt-S | Status Window |
| Ctrl-Alt-T | Teardrop tab in the Preferences dialog box |
| Ctrl-BackSpace | Redo |
| Ctrl-PageDown | Reset delta coordinates to measure from current position |
| Ctrl-Shift-P | Record prompt windows toggle (macros) |

Function Key Shortcuts

| | |
|-----|---|
| F1 | Open on-line help |
| F2 | Add route |
| F3 | Dynamic route |
| F4 | Toggle layer pair |
| F5 | Select pin pair |
| F6 | Select net |
| F7 | AutoRoute selected |
| F8 | Mouse move compression (macros) |
| F9 | Absolute/Relative coordinates toggle (macros) |
| F10 | End recording (macros) |

Other Key Shortcuts

| | |
|-----------|---|
| BackSpace | Remove last route corner |
| Esc | Cancel command |
| M | Opens pop-up for current mode (right mouse button). |
| Spacebar | Left mouse click |
| Tab | Cycle pick |