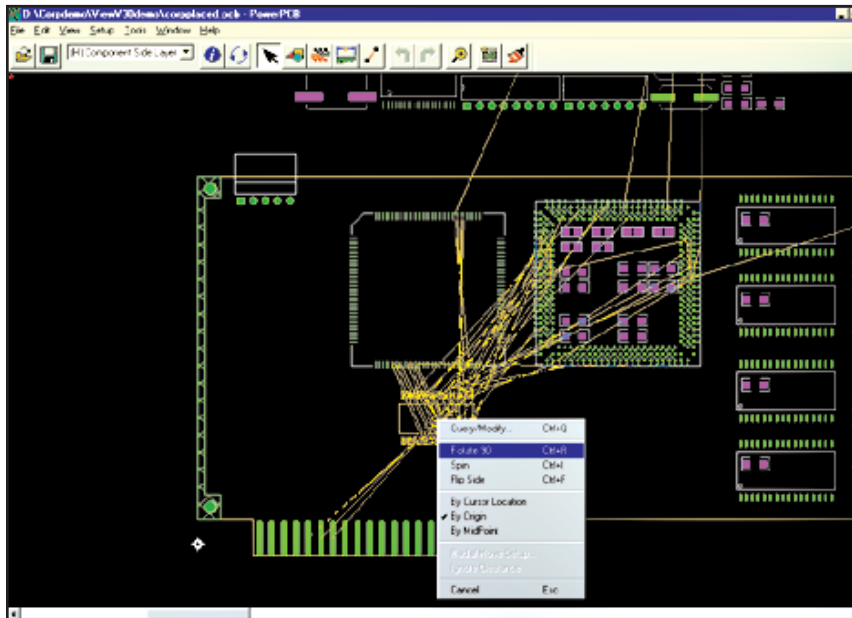


Critical Place and Route



By adding CPR to PADS® Layout, you can specify critical layout factors for design success

Major product features

Bridges the gap between circuit design and PCB layout

Defines, verifies, and enforces essential design rules upfront

Clearly monitors and maintains key layout requirements

Eliminates revisions by creating error-free layouts

Overview

Many EDA systems exhibit a weak link between design concept and physical layout. As a result, critical errors are found only after the layout has been completed, resulting in difficult, time-consuming editing and expensive delays. Critical Place and Route (CPR) is an add-on to PADS Layout that promotes a tight working relationship between circuit design and layout, thus reducing time-to-market and saving on costly revision expenses.

Improved Communication

CPR makes it easy for the engineer to directly specify layout factors most critical to a design's success. These requirements are passed directly to the layout engineer, thus improving communication remarkably.

Specifications Automatically Enforced

The critical specifications for the design's manufacturability are automatically enforced. This ensures design quality and integrity upfront and throughout the process. Placement and routing functionality enables early detection of critical layout factors.

With Critical Place and Route, you can:

- Specify emitter coupled logic (ECL) scheduling
 - Fix key part locations
 - Route crucial interconnects
- Define essential design rules to ensure layout correctness

The schematic can be linked with a preliminary layout for rapid placement and routing, design querying, signal checking, and engineering change order (ECO) processing. By specifying critical layout requirements early in the process, development time is drastically decreased.

Key Features Enhance Productivity

CPR incorporates robust, productivity-enhancing functionality with cross-probing and library module features. Key CPR features include: multi-level undo/redo, save and recall, view and layout displays, placement editing, library editing, route editing, design verification, cut, copy and paste, fast circuit rules, and more.

Design and Layout Work as a Team

CPR keeps design and layout working as a team to automatically streamline design processes and improve design quality.

CPR improves the design process by enabling you to:

- Run place-and-route from the design environment
- Cross-probe between the schematics and the preliminary layout
- Accept engineering change orders
- Automatically edit the schematic and layout in unison
- Define crucial layout areas using 0.1" part rotation, double-sided component placement, arced and curved routing, and blind and buried via controls
- Create high-density, error-free layouts with sophisticated design rule checking

PADS Layout Options

- Advanced Packaging Toolkit
- Advanced Rule Set (ARS)
- Analog Toolkit
- Assembly Variants
- Cluster Placement
- Database Viewer
- DFF Audit
- DFT Audit
- PADS Router interactive route editor)
- PADS RouterHSD
- IDF Link
- Physical Design Reuse (PDR)

Visit our website at www.mentor.com/pads

Copyright © 2004 Mentor Graphics Corporation. All rights reserved. PADS is a registered trademark of Mentor Graphics Corporation. All other trademarks mentioned in this document are trademarks of their respective owners.

Corporate Headquarters
Mentor Graphics Corporation
8005 SW Boeckman Road
Wilsonville, OR 97070-7777
Phone: 503.685.7000
Fax: 503.685.1204

Systems Design Division
Mentor Graphics Corporation
1811 Pike Road
Longmont, CO 80501
Phone: 720.494.1000
Sales: 888.482.3322
Email: pads_info@mentor.com

