



Board Architect defines and manages design variants.

#### Major product benefits:

- Synchronize changes to schematics while concurrently developing the PCB layout
- Support design reuse and variant design methodologies
- Reuse portions of PCB designs with physical hierarchy to preserve intellectual property and enable team design
- Fully compatible with current Library Management System (LMS)
- Automatically assign part numbers and reference designators while developing the design
- Create schematic documentation including signal cross-reference, parts location index, connector tables, spare sheets and power/ground tables
- Generate bill-of-materials, components, or net files directly from the schematic to drive a variety of analysis tools

The Mentor Graphics® Board Architect™ tool is the robust and innovative design capture system that allows engineers and PCB designers to develop products faster and substantially reduce product cost.

#### Unique Design Interpretation

Board Architect's unique design interpreter, the PCB-Gen™ tool, evaluates every sheet of the schematic design, including complex hierarchy, and dynamically builds a PCB design database as the schematic is developed.

PCB-Gen evaluates designs using either standard PCB catalogs or the catalog files from the Mentor Graphics LMS. As new symbol instances are added to the schematic, PCB-Gen assigns part numbers, gate associations, reference designators and pin numbers. With the PCB-Gen Catalog Manager, complete control over which libraries to load is gained, and the evaluation order is established.

#### Maximum Impact When Developing Designs

Maintain the highest degree of flexibility in design development while using Board Architect to locate every geometry that is required to move from the schematic directly into the Board Station® PCB layout tool.

#### Easily Evaluate Hierarchical Designs

Use Board Architect's Schematic Release Package (SRP) to evaluate designs and create schematic documents that make even the most complex, hierarchical designs easy to understand. Quickly traverse signals across multiple sheets and numerous levels of hierarchy, as SRP completely cross-references all signals found in the design.

While maintaining the simplicity and readability of a flat schematic, Board Architect provides maximum

functionality for managing hierarchical designs. SRP generates a part location index to quickly guide designers to a specific part, in a specific zone, on a specific sheet.

### Drastically Reduce Valuable Design Time

Engineers and PCB designers can work concurrently on a single design database, using the Board Architect methodology menu, which guides them through a sophisticated concurrent board process.

### Streamline the Design Process and Improve Productivity

With Board Architect, engineers can create Engineering Change Orders (ECOs) as a result of simulation and analysis, while PCB designers develop the board layout. Additionally, design teams can automatically and interactively resolve any conflicts caused by the concurrent efforts, quickly ensuring the desired results.

### Design Reuse

Board Architect and Board Station work together to facilitate the reuse of both logical and physical design data. Critical and certified design sections can be reused to preserve the integrity of your design, ultimately reduce system cost and improving system reliability.

### Variants

Another reuse feature available within Board Architect is variant design, saving designers valuable time by eliminating the need for data re-entry. The Function Managed Variants feature enables design reuse at the functional level, rather than at the component level. This is key to specifying product options, allowing for quick reconfiguration of the design.



Use concurrent engineering to resolve design conflicts.

### System Requirements

Mentor Graphics recommends the following minimum requirements for optimal system performance.

#### Windows

Processor: Pentium processor

OS: Windows NT®

Memory: Minimum 128 MB RAM (256 recommended)

#### UNIX

Sun: 128 MB RAM

Solaris 2.6 and 2.7

HP: 128 MB RAM

HP-UX 10.2

To learn more about how Board Architect can help improve your system design process, call Mentor Graphics to schedule a complete product demonstration, or visit our website at [www.mentor.com/pcb](http://www.mentor.com/pcb) for latest product news.

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