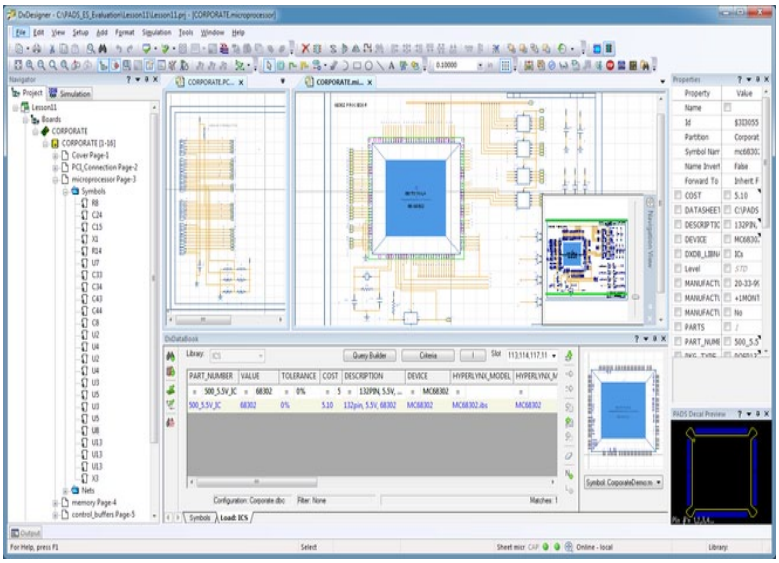
DxDesigner
for PADS and non-Mentor PCB designs

System Design

D A T A S H E E T



DxDesigner· the complete solution for systems design definition·

MAJOR BENEFITS:

- Intelligent hierarchical support for design reuse
- Powerful search/edit capability through hierarchy
- Integrated library browser for intuitive parts management
- Integrated variant management for simplified design variant support
- Integrated InterConnect Editor (ICE) for table-based design of high-pin-count components like FPGAs, connectors, and backplane designs
- Integrated digital, analog, and mixed-signal design and simulation support
- Support for most popular PCB layout packages

DxDesigner — A Complete Solution

Creating competitive products is more than capturing a schematic and passing the design to layout. Libraries must be managed so that the optimal parts with the lowest cost and shortest lead-time are used in the design. Sections of designs must be reused to reduce development time and improve reliability. Simulation and signal integrity analysis must be performed to ensure that the design will function properly and can be manufactured. Constraints must be applied early in the process so that fewer design iterations are required. Finally, the design data must be distributed and integrated with purchasing and manufacturing operations so that a complete product can be produced with the fewest errors in the least amount of time.

The DxDesigner® tool provides a complete solution for design creation, definition, and reuse. It provides everything needed for circuit design and simulation, component selection, library management, and signal integrity planning in a concurrent design environment.

Design Reuse

Design reuse is a powerful methodology for reducing development costs and time while increasing product functionality and reliability. DxDesigner has many features that were created with design reuse in mind. Sophisticated hierarchy supports the ability to import data from one project to a new project or design. A complete cross-referencing tool can cross-reference nets across hierarchical blocks, and can even identify the sheet number in the drawing package where a particular block is defined. An intuitive design navigator simplifies the search for parts and nets in a hierarchical design, making this design methodology practical and effective.

Design variants can also be defined in DxDesigner. A component (or block) can be uninstalled or substituted for another component while maintaining the integrity of a user-specified characteristic such as the PCB footprint. This flexibility allows multiple variants to be produced from a single base design. If changes are made, all the variants inherit the changes, thus reducing the required rework and maintenance of design data.

All of these features combine to make design reuse accessible to any project team.

Integration with the Organization

In order to optimize a product development cycle, design data must be integrated with the rest of the corporate enterprise. DxDesigner has the ability to publish schematics, library data, and other design data through a web server, so any user with the appropriate permissions can gain access to this information using a web browser. DxDesigner can be integrated with other corporate operations, such as PLM systems, through a customizable bill-of-materials, searchable PDF schematics, and archives of design data. It also supports a centralized, Internet-based library so that only one version of the corporate library needs to be maintained.

Constraint-Based Design

In order to build successful products the first time, designs must be constrained early in the design process. This prevents the production of designs using parts that cannot be sourced or are cost-prohibitive, or the production of boards that do not meet performance or manufacturing requirements.

DxDesigner provides designers with the status of all component data so that they can choose the right part. It can also verify an entire design against the corporate database to ensure that all data are consistent and correct.

Powerful Features for High Productivity

DxDesigner includes many additional features that lead to higher design productivity. Specialized pins for block input and output, power and ground, and on- and off-sheet connectors are automatically added. Borders with user-customizable annotations are also automatically added to new schematics. Tool tips provide users with design information without requiring them to zoom, pan, or open dialogs. Finally, an open-object model provides complete access to DxDesigner data and commands through standard VBScript or JScript languages, allowing for extensive customization.

DxDesigner Components

DxDesigner can be configured several ways to support your specific design needs. Additional components include DxDataBook™ for centralized library access, DxPDF™ for creating PDF documentation, Variant Manager for variant design definition, and PCB interfaces to support additional PCB layout systems.

Minimum Hardware Requirements

- 1 GHz Processor
- 2 GB RAM

Minimum OS Requirements

- Microsoft Windows 7, 32- and 64-bit, Windows Vista 32- and 64-bit (Ultimate, Business and Enterprise Editions), or Windows XP Professional (SP2 and SP3) – 32-bit only
- Windows Server 2003 (Standard Edition) 32- and 64-bit, Windows 2008 (Standard or Enterprise) 32-bit, and Windows Server 2008 R2 (Standard or Enterprise Edition) 64-bit.

For the latest product information, call us or visit: www.mentor.com/pads

©2012 Mentor Graphics Corporation, all rights reserved. This document contains information that is proprietary to Mentor Graphics Corporation and may be duplicated in whole or in part by the original recipient for internal business purposes only, provided that this entire notice appears in all copies. In accepting this document, the recipient agrees to make every reasonable effort to prevent unauthorized use of this information. All trademarks mentioned in this document are the 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

Sales and Product Information
Phone: 800.547.3000
sales_info@mentor.com

Silicon Valley
Mentor Graphics Corporation
46871 Bayside Parkway
Fremont, CA 94538 USA
Phone: 510.354.7400
Fax: 510.354.7467

North American Support Center
Phone: 800.547.4303

Europe
Mentor Graphics Deutschland GmbH
Arnulfstrasse 201
80634 Munich
Germany
Phone: +49.89.57096.0
Fax: +49.89.57096.400

Pacific Rim
Mentor Graphics (Taiwan)
Room 1001, 10F
International Trade Building
No. 333, Section 1, Keelung Road
Taipei, Taiwan, ROC
Phone: 886.2.87252000
Fax: 886.2.27576027

Japan
Mentor Graphics Japan Co., Ltd.
Gotenyama Garden
7-35, Kita-Shinagawa 4-chome
Shinagawa-Ku, Tokyo 140-0001
Japan
Phone: +81.3.5488.3033
Fax: +81.3.5488.3004

09_12 LVG 1030920-w