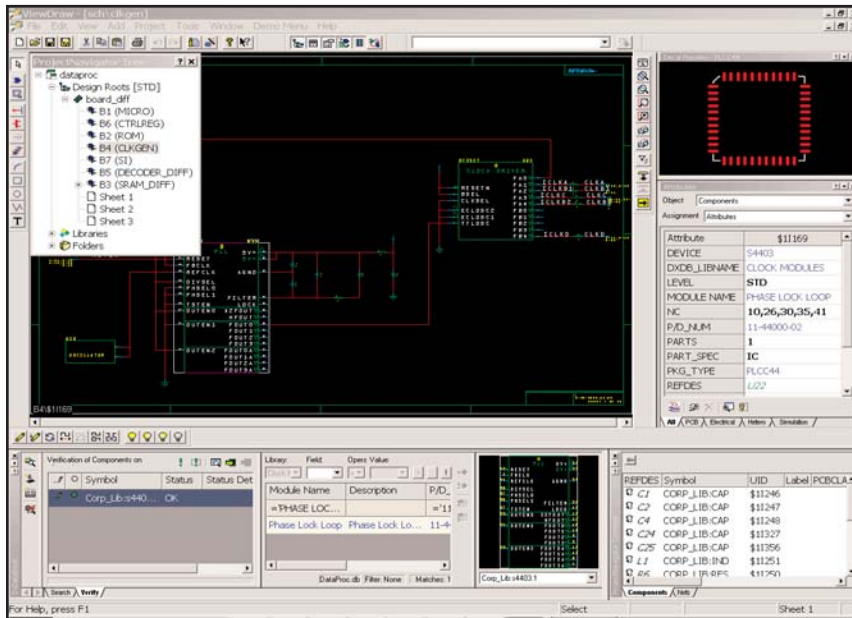


DxDesigner



The DxDesigner environment offers a complete solution for design definition

A Complete Solution

Creating competitive products involves more than just capturing a schematic and passing the design to layout. It calls for a complete “design definition” solution. Design definition means managing libraries for optimal part selection, such that only the lowest cost and shortest lead-time parts are used in the design. Design definition means reusing sections of designs to reduce development time and improve reliability. It means performing simulation and signal integrity analysis to ensure that the design will function properly and can be manufactured. It also means applying constraints early in the process so that fewer design iterations are required.

The DxDesigner™ environment provides a complete design definition solution that carries you smoothly through all facets of the development process. With DxDesigner, you get a robust core of tools to which you can add a variety of options for circuit simulation, part information management, signal integrity planning and analysis, and project management.

Because DxDesigner is based on industry standards such as Windows® automation, VB scripting, and ASCII, you can work the way you want to and get the capabilities you need. For example, the menus can have your own look and feel, you can execute functions unique to your needs, and you can generate the outputs you need.

- Feature-rich design capture environment
- Enables true hierarchical schematics
- ORCAD® Capture and PADS Logic schematic and library translation
- Allows you to easily include all data needed for volume production
- Support for gate level and HDL design for PCBs and FPGAs
- Easily manages attributes and constraints (layout rules)
- Rapidly view and navigate through your entire design
- Integrated library browser with automatic net creation and naming
- Find intended parts easily with optional Component Information Management system
- Powerful design variant management option
- Integration with four types of simulation: digital, analog, mixed A/D, and HDL
- Integration with signal integrity analysis
- Interfaces to PADS Layout and most other PCB layout packages

The Power of Design Reuse

Design reuse is a powerful methodology for reducing development cost and time while increasing functionality and reliability. It also increases design quality by building on the success of your previous work.

DxDesigner was created with design reuse in mind. For example, you can incorporate a library of reuse modules into your standard libraries. These modules may come from another design – such as a power-on circuit, or they can be duplicated within the same design – as with multi-channel interface circuits or memory blocks.

Another aspect of design reuse is variant management. Design variants eliminate or substitute components, allowing basic designs to be reused across many products. With variant management, companies can simplify their design and manufacturing processes, reduce inventory, and increase quality. DxVariantManager™ is an option that automates the variant process, eliminating the tedious, error-prone paperwork often associated with design reuse. Its color-coded spreadsheet and integration with component information management ensure that your variant documents are created rapidly.

The Superiority of Constraint-Based Design

Using constraints early in the design process can significantly increase your chances of first-time success. With constraints, you can prevent the production of boards that don't meet performance, high-speed, or manufacturing requirements.

Until now, managing constraints across numerous nets was really painful, especially when changes were needed. DxDesigner solves this problem with an intuitive spreadsheet that allows you to easily manage physical and electrical constraints. Bi-directional communications integrate your constraints directly with PCB layout and signal integrity analysis. Constraints include clearance, tolerance, layer information, matched length, min/max length, and more.

The Quality of Component Information Management

The benefits of component information management are almost too numerous to list – but they can be summarized in one word: Quality. Accurate management of component

information leads to quality in many ways – quality BOMs, quality schematics, quality simulations, and quality netlists.

Using DxDesigner in conjunction with the DxDataBook™ option quickly puts you on the track to higher-quality designs because its component management capabilities are easy to set up and because they work with standard databases. That means you can use the data that you already have, and that data can come from multiple sources. Rather than being organized in linear libraries that are difficult to search, DxDesigner lets you organize your data in relational databases, so they are easier to manage going forward.

For example, with DxDesigner you can rapidly learn if a part is already in the database, make sure that the engineering and manufacturing data agree, propagate changes to multiple parts, and reduce the number of symbols you need to maintain. The database(s) can be organized however you like and can contain any parts you wish to include, including reuse modules. The ability to connect with standard databases also makes it easy to connect your engineering department with other departments in the enterprise, such as purchasing and manufacturing. And, it's easy for engineers to use since they work from within the DxDesigner environment.

Once a schematic is in process, or being brought back into the process, the Verify capability ensures that the component data are up to date. It checks every attribute on every part to ensure an exact match against the central database. If a problem is found, DxDataBook helps you find the intended part and place it in your design.

DxDesigner Options

DxDesigner can be configured to support your specific design needs. It is based on ViewDraw®, one of the most widely used and easy-to-learn schematic capture tools in the industry. Add-on components include DxDataBook for centralized library access, DxPDF™ for the creation of intelligent PDFs that enable anyone to view and search your schematic, DxVariantManager for variant design definition, DxDataManager™ for design file management, and interfaces for robust integration with popular PCB layout tools such as PADS Layout.

Visit our website at www.mentor.com/pads

Copyright © 2004 Mentor Graphics Corporation. All rights reserved. Mentor Graphics, PADS, PADS Layout and ViewDraw are registered trademarks and DxDataManager, DxPDF, DxDataBook, DxVariantManager are trademarks 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

