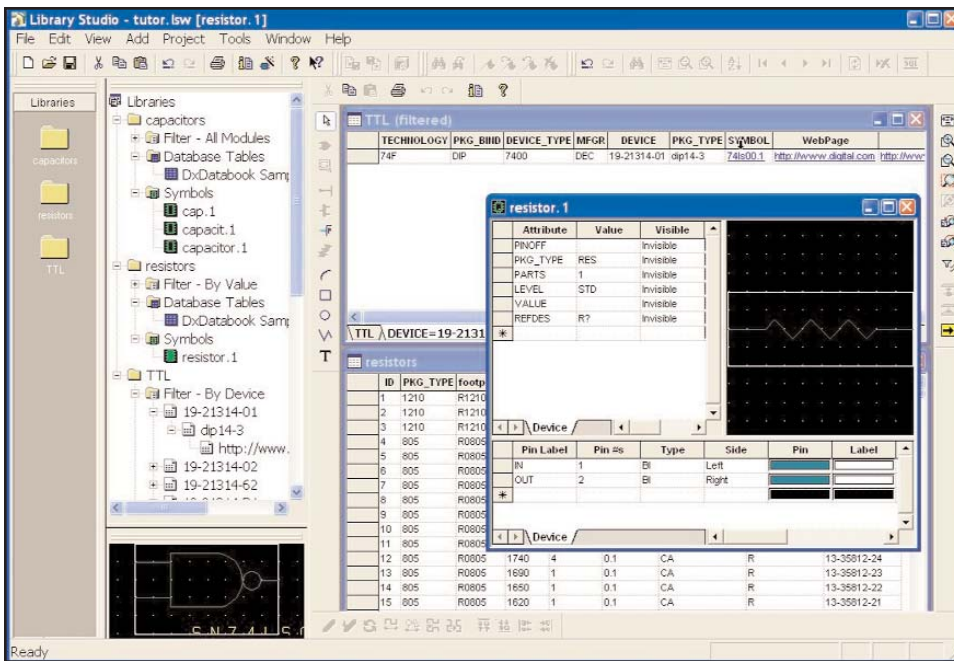


# DxLibraryStudio

## Internet-Enabled Library Management

System Design

D A T A S H E E T



### Major product features

- Provides graphical environment to manage component and design reuse data stored in variety of physical locations and database formats
- Vendor-independent approach manages data from any application to provide easy integration into the design environment
- Supports “correct by construction” library methodology according to corporate standards
- Minimizes repetitive data entry and provides data validation to maximize design productivity and library accuracy
- Simplifies task of publishing design modules in searchable format for reuse across global enterprise
- Supports open, customer-defined component data model

### Overview

DxLibraryStudio™, a member of the Design Exchange product family, provides two complementary sets of capabilities in the areas of design reuse and component library management.

### Design Reuse

DxLibraryStudio provides the capability to implement component and design module reuse, to archive design data and publish it for use across an entire enterprise in an efficient, searchable built-in format. It provides revision control for all file types, such as schematics, VHDL, Verilog and documents, which enables true distributed team-based design and reuse. Additionally, this process allows for efficient searching of and modifications to either the base or derived design data.

### Component Library Management

Most product development and manufacturing processes utilize tools that come from a variety of vendors, each dependent on component data that is extracted from a tool specific library. Unfortunately, every organization’s design and manufacturing process is different, requiring a wide variety of component data to support it. As the number of tools increase, the number of libraries that must be supported and the opportunity for component data inconsistencies and errors increase as well. Errors in library data may ultimately lead to design errors resulting in time-consuming product rework and schedule slips. DxLibraryStudio integrates state-of-the-art web-based technology to achieve cross-platform support.

DxLibraryStudio is a customizable, component data entry and management product that solves the library support problem. This is achieved by tying together all the various library

representations of components that are required by automation tools used in the design, analysis and manufacturing process. It includes standard language scripting, ODBC database connectivity, ISAPI and active server pages. These features provide a flexible environment with industry standard interfaces.

### Open Component Data Model

DxLibraryStudio can be used to simply enter and maintain DxDesigner™ library data or it can be used to support the complete range of tools used in the design and manufacturing process. A component data model defines a set of component types and the various elements of data that are required for each type while also defining the format that is needed by each tool. Using this model, library developers can enter parametric data or create files using their native editors.

DxLibraryStudio defines component data as a collection of representations, each of which serves a specific purpose in the product development processes. It also supports “out-of-the-box” ASCII file formats and can be easily customized to support other “user-specific formats”.

### Efficient Data Handling

Data redundancy can be one of the most problematic aspects of managing libraries. For example, the traditional way of storing parametric data has been to add it to the schematic symbol and store it as a separate library part. Unfortunately, this requires duplicate information for many components resulting in duplicated work, data explosion and potential errors. DxLibraryStudio minimizes redundancy by using a database to store parametric data. Another means of reducing data redundancy is through the use of global attributes where a particular component type can be assigned an attribute that applies to all components of that type.

### Library Validation

DxLibraryStudio performs validation checks that assure that all the information is correct and consistent for all tools. It provides several “out-of-the-box” Design Rule Checks (DRCs) to verify basic requirements. These DRCs can be easily customized using any active scripting language and automation interface.

### Visit our website at [www.mentor.com/pads](http://www.mentor.com/pads)

Copyright © 2004 Mentor Graphics Corporation. All rights reserved. Mentor Graphics and ViewSim are registered trademarks and DxDataBook, DxDataManager, DxLibraryStudio, and Fusion are trademarks of Mentor Graphics Corporation. All other trademarks mentioned in this document are trademarks of their respective owners.

## Component Data Management

DxLibraryStudio delivers coherent and accurate component model information that is shared by all tool users. Once a new or revised model is complete, a new library version is released to the designers using the systems release and control features. It also is integrated with DxDataManager™ to provide library data management functions that ensure the correct version of parts are being used.

### Typical Product Usage

The user launches DxLibraryStudio and opens their current “workspace” which contains information about the component libraries and design reuse modules needed in a design. The workspace is presented to the user as a hierarchical view of their libraries and the underlying data. Users can create a new library, import an existing DxDesigner symbol library by extracting symbol attributes into a database, or import an existing DxDataBook™ environment. DxLibraryStudio provides a spreadsheet view of the data for creation of a new part. After navigating to the library, the user can add a new database field by opening the ‘design view’. The data view can then be used to enter additional component information.

Editing and creation of symbols is another common task. Symbols are edited by using an integrated editor, allowing spreadsheet access to symbol data, as well as full DxDesigner functionality from within DxLibraryStudio. Additionally, new symbols can be generated from a number of sources by using the Symbol Wizard.

### Enables Internet-Based Product Development

Design Exchange is a family of Internet-enabled tools, created exclusively to support the needs of a geographically dispersed design team. Other related products are:

- DxDataBook - used to search databases across the Internet or Intranet for desired parts, or intellectual property modules, that can be used in the current design.
- DxDataManager - used to manage work-in-progress (WIP) design data across the Intranet. It supports file locking, check-in and check-out and version control. It has also been linked to a number of popular enterprise-wide Product Data Management (PDM) systems.

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](mailto:pads_info@mentor.com)

