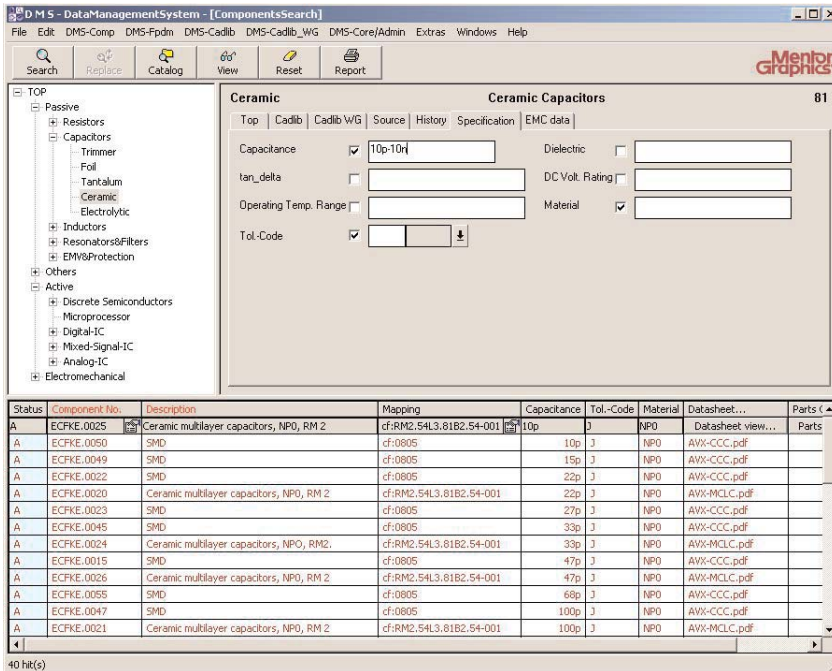


Data Management Systems

Design Data Management
Powered by DataFusion
D A T A S H E E T



DMS is the only solution on the market that integrates the electronic design chain with the supply chain on the designer's desktop.

Major product benefits:

- Easy access to all critical information significantly reduces research time.
- Integration of component information with ECAD Libraries and Design Bills of Materials eliminates costly design and manufacturing errors.
- Direct integration with Expedition and Board Station products seamlessly integrates DMS with the design process.
- Provides global access to design teams across multiple sites facilitating enterprise-wide collaboration.
- Standardized interfaces to supply chain and business systems ensure complete, accurate and timely exchange of design data.

The Complete Design Data Management Solution

Mentor Graphics Data Management System (DMS), powered by DataFusion™ technology, delivers significant productivity gains to Mentor Graphics customers by managing information that is critical to the electronic design process. ECAD library and design Bill of Materials (BOM), combined with powerful search, where-used and cross-referencing capabilities, allows DMS to significantly reduce product costs, improve quality and shorten time-to-market.

DMS Suite of Products

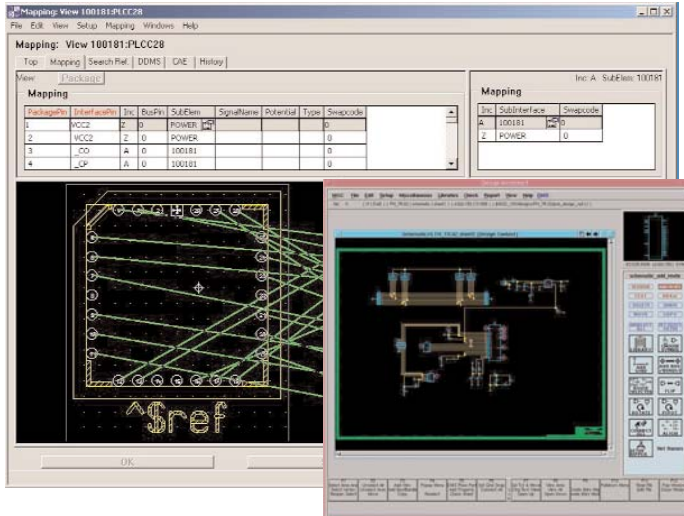
DMS is available for both the Expedition™ and Board Station® products in a Workgroup or Enterprise configuration. The DMS Workgroup environment forms the foundation for a complete data management solution by installing a standard data model and functionality suite that incorporates the following capabilities:

- Component information, supplier and quality management based on IEC standards for component data
- Board Station and Expedition ECAD library management based on IEEE/ANSI standards
- Design BOM Release Management
- Direct interface inside Design Architect® and/or Design Capture™

The DMS Enterprise environment extends the capabilities of DMS Workgroup by providing the global enterprise customer with custom design process automation, enterprise and supply chain integration and multi-site collaboration.

The Power of DataFusion

Our unique DataFusion technology combines object-oriented methods in a relational database, providing an integrated environment. Companies can now have total control over component information, component supplier information, ECAD libraries, design data and BOM release management that spans multiple design teams and sites.



DMS ensures complete data consistency, accuracy and availability throughout the design enterprise.

Universal DMS Capabilities

Powerful search and select capabilities make the DMS suite of products easy to use. Finding and using component data no longer requires extensive research time — time that could be spent on the actual design. Geared for the design engineer, the following capabilities offer extensive flexibility:

- Intelligent units of measure allow designers to specify parameters in their preferred units, regardless of how they are stored by performing on-the-fly unit conversion
- The ability to search on, and view, any characteristic allows designers to access only the data that is relevant to the design
- Full range and boolean search capabilities quickly, and easily, eliminate data outside of the desired specifications
- DataFusion technology links data types together, enabling valuable, where-used and cross-referencing capabilities between component information, ECAD libraries and design BOMs
- Flexible release and revision control capabilities can either simply track changes in work-in-process design data, or manage releases with full version control

Component Information Management

DMS manages key component information, enabling designers to make the right decisions regarding component selection. All information necessary to the design process is available at the designer's mouse click. A complete set of electrical characteristics, datasheets, application notes; as

well as, life-cycle status, and the quality, reliability, cost and component availability are readily accessible. This enhances design quality and functionality, and also enables the designers to meet critical business design goals (based on component availability, price and quality).

With DataFusion technology, the components are linked to the ECAD library. When the designer chooses a component, the proper ECAD library element is also chosen.

ECAD Library Management

The quality of a library is critical to the quality of a design and the design process, and ultimately affects the quality of the final product. Even a 99% quality metric means that, on the average, one out of one hundred parts may not comply. Extremely high quality metrics must be applied to the ECAD library, and the only way to achieve these metrics is to actively manage the library and its creation process.

DMS offers full Expedition and Board Station library management functionality, with the ability to control the ECAD part life cycle from creation, through release and obsolescence.

All necessary ECAD views, including symbols, footprints and pad-stacks, are stored and accessible through DMS with full release and version control management. By controlling the part life cycle in a typed environment, DMS enhances the quality of the library to the highest standards.

Board Station and Expedition access library data through a DMS managed cache. This enables the controlled distribution of libraries across multiple sites.

Specific capabilities of ECAD library management include:

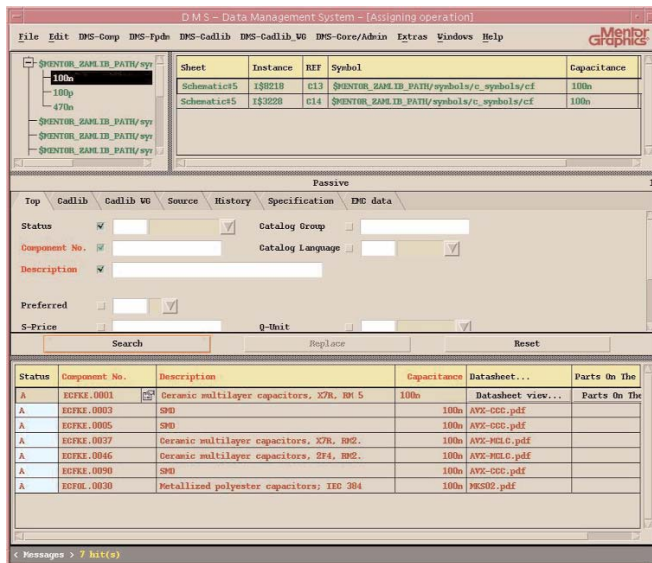
- Support for generic parts with refinement to the full component definition allows the designer to make the component choices at the appropriate time
- Version control ensures the most up-to-date part is used
- Check sheet and audit controls alert the designer to component and library changes
- Update and replace with history tracking gives the designer the ability to appropriately manage change

BOM Release Management

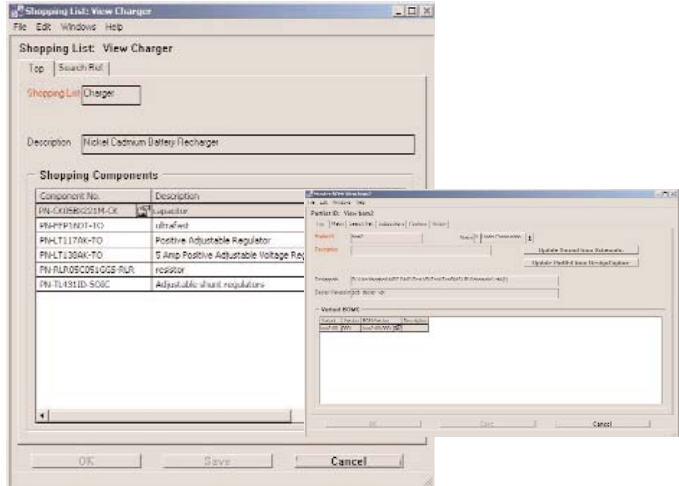
The design BOMs is one of the key documents that bridge the design process with the manufacturing process. Up-to-date BOMs ensure that manufacturing and purchasing are prepared when the design is ready for production. As setting up the manufacturing line can take weeks, purchasing must pre-order components with long lead times. Consequently, it is critical that an accurate, up-to-date design BOM be available to purchasing and manufacturing during the design phase. DMS interacts directly with the design and the design tools, to ensure that the design BOM is always up-to-date, and accessible to the organizational enterprise. Changes that may affect the design are automatically flagged, and can be easily managed by the designer.

Direct Connection Into Design Tools

DMS extends beyond the power of traditional data management solutions, by providing designers with direct access to data management functionality within their primary design environment. Critical information is readily available to the engineer without leaving the design tool. Direct instantiation from DMS, and cross-probing and highlighting between the design and DMS, ensures the accuracy and completeness of the design while using the most up-to-date information.



DMS is tightly integrated with the engineer's design environment, giving them the data they need, when they need it.



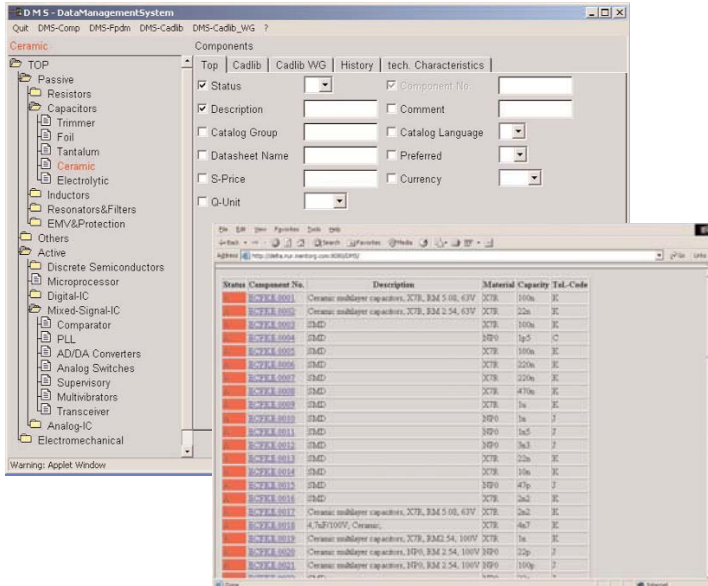
Linking manufacturing and procurement into the design chain by managing the design BOM life cycle along with the design guarantees the most complete and accurate data.

Business System Integration

DMS enables a standardized release process for design data into the manufacturing business infrastructure. Additionally, Enterprise Resource Planning (ERP) data can be retrieved and stored in DMS, providing an effortless communication framework to exchange information between engineering and the business systems. DMS offers an Application Programming Interface (API), which makes integration and customization easy and straightforward. This means that design processes can be enforced and automated.

Enterprise-Wide/Global Multi-Site Support

DMS utilizes true client-server architecture so that companies with multiple sites can access the same information. Customized replication to local networks optimizes performance over slower Wide Area Networks (WANs). A Web-based client gives universal access to data that is managed by DMS to any user with a standard web browser. Complete user account management controls access to the tool functionality and the information DMS manages, guaranteeing security across the enterprise.



DMS provides the entire design team with access to critical information across the enterprise using client/server and web based technologies

System Requirements

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

Windows

Processor: Pentium II® Processor
 O/S: Windows NT® 4.0 SP6a
 Memory: 128 MB

Unix

Processor: HP - HP9000/700 series
 Sun - UltraSPARC™ 5

To learn more about how DMS can address your design data management needs, call Mentor Graphics to schedule a complete product demonstration, or visit our website at www.mentor.com/dms for the latest product news.

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