

Siemens PLM Software

ECAD parts library management

Enterprise-wide management of ECAD parts libraries

Benefits

- Facilitates enterprise-wide ECAD parts library management
- Ensures data consistency across multiple ECAD tools
- Improves re-use of approved parts
- Facilitates a transparent, secure and collaborative process for parts introduction and modification
- Manages part obsolescence policies and procedures
- Eliminates part and data duplication
- Reduces cost and cycle time of your environmental compliance process
- Enforces procurement from approved vendors

Summary

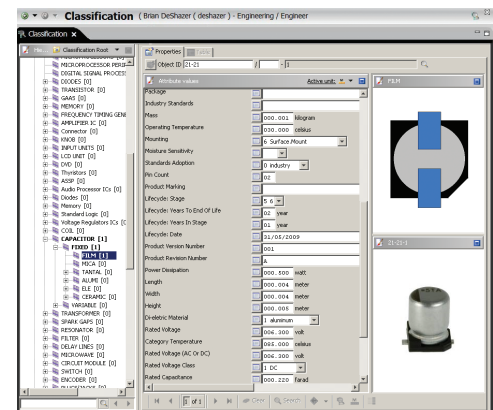
Teamcenter® software's ECAD parts library management solution provides enterprise-wide management for ECAD parts data, including attributes and relationships with vendor and compliance. Teamcenter enables companies using multiple ECAD tools to leverage a single library, control library access and manage part change and approval processes.

Enterprise-wide ECAD parts library management

With today's shortened innovation cycles, environmental requirements and decentralized product development, enterprise management of your ECAD parts library has become a critical success factor. The Teamcenter library management capabilities provide you with the ability to manage the logical and physical data in your ECAD parts library, as well as their attributes and relationships.

With Teamcenter, you can manage electronic component data and control user access to this information. In Teamcenter, part library management can become part

of a structured workflow that you manage and control through your change management processes. By managing parts data in Teamcenter, product manufacturers can reduce part duplication, prevent use of obsolete or unapproved parts, assign compliance data and focus procurement from approved vendors.



Using Teamcenter Part Library Management you can easily search, find and update ECAD parts and their attributes.

ECAD parts library management

Business challenges

- Managing consistency of ECAD part data across multiple tools and multiple design locations
- Eliminating the use of unapproved or obsolete parts
- Controlling library access, part introduction and change processes
- Identifying and using preferred parts
- Reducing part duplication and cost
- Managing vendor part data and relationships
- Ensuring environmental compliance

Single, secure location for multi-ECAD environments

In today's globally distributed design and supplier environments, companies frequently have multiple ECAD tools, each with its own parts library.

Maintaining multiple parts libraries not only results in data inconsistency but also inhibits organizational efficiency. By using Teamcenter, your design teams can consolidate all of this disparate information into a single secure location, making it available for use across multiple ECAD tools.

To ensure that accurate and consistent information is available throughout your organization, Teamcenter library data can be synchronized with each individual ECAD tool's local library.

Structured workflows and change processes

The parts in your ECAD parts library are constantly undergoing change. To prevent design teams from using unapproved, obsolete or out-of-date parts, you need to control access to the library and establish specific processes and procedures for incorporating changes.

Through Teamcenter, every facet of your entire library management access and update processes can be controlled using structured workflows and change management procedures. To ensure information consistency, you can use Teamcenter to grant write access permissions to specific users or library administrators. As parts are added or attributes modified, you can apply structured review and approval processes.

To make certain that design teams use only the most current data, library administrators can establish specific synchronization schedules and processes. The Teamcenter synchronization process automatically identifies any new or updated parts that need to be exported to local libraries. The library administrator can browse the modified parts and verify that the local EDA libraries are updated.

Classification and search

Design engineers and library administrators spend large amounts of time searching for parts spread across multiple ECAD libraries and then comparing their attribute data. Engineers can use the Teamcenter classification capabilities to quickly identify and select the "right" part from the beginning of the design process, while also ensuring the use of "preferred" parts.

The Teamcenter intuitive classification and search capabilities are based on a RosettaNet standard. These capabilities enable you to rapidly identify and compare parts data. After data is imported into Teamcenter, all ECAD parts are automatically classified in targeted libraries or catalogs through classification and attribute mapping tables. You can configure library and catalog formats and apply customizable classification schemes at your discretion.

The Teamcenter advanced library management, classification and attribute search capabilities improve your ability to organize and manage your parts data.

The screenshot shows the 'Classification' tool interface. On the left, a 'Hierarchy' pane displays a tree structure of 'ECAD Component Libraries' including Altium, Capacitor, Ceramic, Axial Lead, Dipped, Disc, Tubular, Electrolytic, Resistor, ADW, Allegro, Orcad, PADS, Resource Management, and Rosetta Net. The main area shows a 'Table' with columns for 'Object ID', 'Object Name', 'Description', 'Value', and 'Tolerance'. The table lists various capacitor parts with their specifications.

metric	Object ID	Object Name	Description	Value	Tolerance
	AL1_C4_1/C	Vishay 1nF Ceramic Axial Lead Capacitor	Vishay Ce...	1nF	15
	AL1_C4_10/A	Vishay 1.8nF Ceramic Axial Lead Capacitor	Vishay Ce...	1.8nF	20
	AL1_C4_11/A	Vishay 2nF Ceramic Axial Lead Capacitor	Vishay Ce...	2nF	20
	AL1_C4_12/A	Vishay 1nF Ceramic Axial Lead Capacitor	Vishay Ce...	1nF	20
	AL1_C4_13/A	Vishay 2.2nF Ceramic Axial Lead Capacitor	Vishay Ce...	2.2nF	20
	AL1_C4_1337/A	AVX 820pF Ceramic Axial Lead Capacitor	AVX Cera...	820pF	12
	AL1_C4_14/A	Vishay 2.5nF Ceramic Axial Lead Capacitor	Vishay Ce...	2.5nF	20
	AL1_C4_15/A	Vishay 3nF Ceramic Axial Lead Capacitor	Vishay Ce...	3nF	20
	AL1_C4_16/A	Vishay 3.3nF Ceramic Axial Lead Capacitor	Vishay Ce...	3.3nF	20
	AL1_C4_17/A	Vishay 470pF Ceramic Axial Lead Capacitor	Vishay Ce...	470pF	20
	AL1_C4_174/A	Taiyo Yuden 820pF Ceramic Axial Lead Capacitor	Taiyo Yud...	820pF	10
	AL1_C4_18/A	Vishay 680pF Ceramic Axial Lead Capacitor	Vishay Ce...	680pF	20
	AL1_C4_19/A	Vishay 820pF Ceramic Axial Lead Capacitor	Vishay Ce...	820pF	12
	AL1_C4_2/A	Vishay 220pF Ceramic Axial Lead Capacitor	Vishay Ce...	220pF	20
	AL1_C4_20/A	Vishay 470pF Ceramic Axial Lead Capacitor	Vishay Ce...	470pF	20
	AL1_C4_21/A	Vishay 1.5nF Ceramic Axial Lead Capacitor	Vishay Ce...	1.5nF	20
	AL1_C4_22/A	Vishay 3.9nF Ceramic Axial Lead Capacitor	Vishay Ce...	3.9nF	20
	AL1_C4_23/A	Vishay 1.5nF Ceramic Axial Lead Capacitor	Vishay Ce...	1.5nF	20
	AL1_C4_24/A	Vishay 3.3nF Ceramic Axial Lead Capacitor	Vishay Ce...	3.3nF	20
	AL1_C4_25/A	Vishay 4.7nF Ceramic Axial Lead Capacitor	Vishay Ce...	4.7nF	20
	AL1_C4_26/A	Vishay 1.5nF Ceramic Axial Lead Capacitor	Vishay Ce...	1.5nF	20
	AL1_C4_27/A	Vishay 2.2nF Ceramic Axial Lead Capacitor	Vishay Ce...	2.2nF	20
	AL1_C4_28/A	Vishay 3.3nF Ceramic Axial Lead Capacitor	Vishay Ce...	3.3nF	20
	AL1_C4_29/A	Vishay 4.7nF Ceramic Axial Lead Capacitor	Vishay Ce...	4.7nF	20
	AL1_C4_3/A	Vishay 680pF Ceramic Axial Lead Capacitor	Vishay Ce...	680pF	20

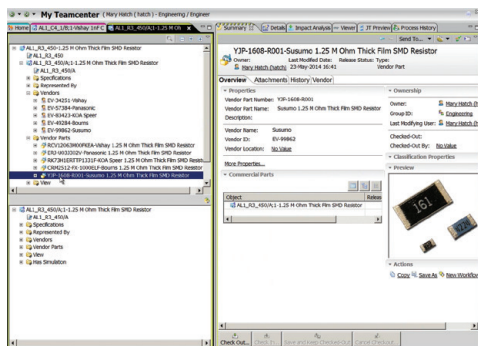
Using Teamcenter Part Library Management you can easily search and identify duplicate parts that might be candidates for elimination.

As a result, you can reduce part duplication and eliminate the use of obsolete or unapproved parts. These capabilities also enable you to provide better information downstream, including to your sourcing, manufacturing and environmental compliance validation processes.

Vendor and commercial part management

Commercial parts, which are supplied by multiple vendors, constitute the physical foundation for most companies' parts library. To facilitate cost effective electronics supply and assembly, Teamcenter provides robust capabilities for managing your commercial part vendors and their respective data.

Library administrators use the Teamcenter "vendor management" wizards to capture, manage and track all of the vital information that defines each vendor's location and points-of-contact. Since the same commercial part often is supplied by multiple vendors, Teamcenter library administrators can define relationships between each commercial part, the vendors that supply this part and whether or not the vendor in question is the "preferred" vendor. This information is especially useful when creating assembly bid packages for contract manufacturers.



Manage and track all of the vital information that defines each part vendor's location and points-of-contact.

To provide engineers with detailed design information, Teamcenter is able to attach the manufacturer's documentation to each part. This documentation can include data-sheets with performance parameters (such as setup-and-hold or clock-to-Q times) or the materials declaration forms for environmental compliance.

Facilitating environmental compliance

Environmental compliance standards are constantly being updated. Tracking, modifying and maintaining all of the substance information for every part across multiple standalone ECAD libraries can be time consuming and error prone. Since the Teamcenter parts library management solution is the single source of compliance data, this ensures that all of the parts in each of your ECAD tool local libraries reflect the latest company information.

Teamcenter part library management enables you to store and associate vendors and parts to IPC-1752 material declaration forms. You can then extract this information and use it in conjunction with the Teamcenter substance compliance capabilities to verify and investigate environmental compliance. You can analyze an individual part, a product BOM, group of BOMs or an entire library. Then, you can browse part compliance status reports and open the associated IPC-1752 material declaration form to investigate the cause of a compliance failure.

Configuration

Contact your Siemens PLM Software account representative for supported ECAD tools and configurations.

Features

- Integration with multiple ECAD tool libraries
- Manage part attributes and relationships
- Structured library access and part change processes
- Advanced RosettaNet and customizable classification and search capabilities
- Establish vendor and commercial part relationships
- Link environmental compliance data to parts
- Library and bill-of-material compare and grading (option)

Contact

Siemens PLM Software
 Americas +1 314 264 8499
 Europe +44 (0) 1276 413200
 Asia-Pacific +852 2230 3308

www.siemens.com/plm

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