Facilitating collaborative product data management (cPDM)

Teamcenter Express ensures on-time, on-budget design-through-manufacturing delivery
Business challenges

Today’s market leaders compete on the basis of:
• Time-to-market
• Product cost
• Innovative content
• Product quality

To succeed in today’s economy you have to outperform your competitors at several levels.

But how do you accomplish this when the product lifecycle for planning, designing, manufacturing and supporting your product offerings is more complex than ever?

How do you optimize your product lifecycle when your extended enterprise may include your own geographically dispersed operations, as well as the diverse operations of your suppliers, business allies and trusted customers? By improving your new product development, manufacturing planning, engineering change and collaboration capabilities.

Siemens PLM Software believes that all stages of your product lifecycle are key to the success of your product portfolio.

The early product lifecycle stages such as product design and design validation determine well over half of your development costs. Your design decisions also invariably impact the downstream stages of your product lifecycle.

To optimize these lifecycle stages, Siemens PLM Software provides Teamcenter® Express – the best-in-class collaborative product data management (cPDM) solution for improving everyday engineering tasks and processes for design-through-manufacturing.

Teamcenter Express enables you to:
• Decrease the time your engineers spend searching for data
• Implement a single source of shared data and common processes across different departments
• Provide better design data visibility to your product development, manufacturing planning and shop floor users
• Consistently and efficiently perform design reviews with both internal staff and external customers and suppliers
• Increase your re-use of common parts and manufacturing processes
• Improve your management of multiple programs and projects
• Minimize IT support requirements and achieve low total cost of ownership

In essence, Teamcenter Express enables you to transform your product development and manufacturing lifecycles from unconnected processes that are limited by isolated information silos to an integrated product lifecycle process that meets the needs of today’s dynamic manufacturing environment.
Introducing Teamcenter Express

Who is Teamcenter Express designed for?

Teamcenter Express addresses the needs of small and mid-size manufacturing organizations that need to:

• Improve the efficiency of design, manufacturing planning and engineering change processes
• Manage multiple programs and projects and optimize engineering resources
• Facilitate more efficient collaboration between departments and with external suppliers and customers
• Migrate from a 2D to a 3D CAD environment
• Accommodate a rapid explosion of engineering data
• Use NX™ software, Solid Edge® software or non-Siemens PLM Software CAD systems including Pro/E, Catia, SolidWorks, Inventor or AutoCAD
• Maximize the re-use of proven components
• Use Microsoft Windows and associated Microsoft products for a common user environment, enabling standard support procedures to be followed

What benefits can I expect from implementing Teamcenter Express?

Teamcenter Express helps small and mid-size manufacturing organizations transform their process of innovation by applying preconfigured best practices to everyday engineering tasks and processes. Organizations using Teamcenter Express benefit by:

• Reducing time spent searching for data and ensuring the correct revision of data is used by manufacturing
• Increasing design commonality and re-use of proven components
• Consistently and efficiently executing key processes such as release to manufacturing and engineering change
• Optimizing engineering resources and identifying potential bottlenecks across multiple projects
• Transitioning more successfully from 2D CAD to 3D CAD
• Maximizing supply chain efficiency through improved collaboration with suppliers and customers
• Managing data from multiple CAD systems in a single, integrated environment resulting in more efficient and consistent working practices
Teamcenter Express provides the robust capabilities that your design and manufacturing teams need to maximize the efficiency of the product development, manufacturing planning and other supporting engineering processes. These capabilities enable you to deliver new and more innovative products faster than your competition and participate in supply chains, while minimizing your costs and improving organizational productivity.

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<thead>
<tr>
<th>Capabilities</th>
<th>Benefits</th>
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<tr>
<td>Complete search and retrieval</td>
<td>Enables users to quickly locate component, part and product information and present it in both graphic and textual formats</td>
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<td>Managed check-in/check-out</td>
<td>Protects the integrity of your engineering product information by “locking out” work in progress</td>
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<td>Revision/version control</td>
<td>Manages information changes in your dynamic environment</td>
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<td>Comprehensive Microsoft Office integration</td>
<td>Enables Microsoft Office (Word, Excel and Outlook) to directly access the Teamcenter Express database to facilitate best-in-class integration with the user’s desktop</td>
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<td>Multi-CAD support</td>
<td>Enables data from multiple CAD systems to be integrated into a single product structure that can be viewed and managed as a complete assembly</td>
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<td>Embedded visualization</td>
<td>Enables users to dynamically view, analyze and markup 2D and 3D virtual products and documents, including design data created in multiple CAD systems</td>
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<td>Engineering change management</td>
<td>Facilitates consistent and efficient engineering change processes</td>
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<td>Design review support</td>
<td>Provides a managed environment for conducting design reviews across multiple departments while enabling the participation of external suppliers and customers</td>
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<td>Advanced security</td>
<td>Protects mission-critical product information by applying best-practice access control</td>
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Teamcenter Express delivers low cost of ownership

- **Accelerated time-to-value from a comprehensive cPDM solution.** Teamcenter Express has been preconfigured to rapidly support the needs of mid-sized companies, including their requirements for product structure management, BOM creation and editing and workflow process management.
- **Minimal IT resources required for initial implementation and ongoing maintenance.** Teamcenter Express is built on Microsoft standards such as Windows Server, Vista and SQL Server.
- **Fast learning curve with minimal training.** Teamcenter Express includes specially developed process-oriented training materials, including a self-paced training guide, that show users how to complete typical work processes in the most efficient manner.
- **Preconfigured industry best-practice workflows.** Workflows for the key design release and engineering change order processes are preconfigured in Teamcenter Express.

Rapid deployment of your cPDM system

- **Easy software installation.** Teamcenter Express provides a specially designed installation procedure that automatically creates a Teamcenter Express SQL database instance preconfigured to industry best practices. The Teamcenter Express database, file vaults, web application, file translation services, full text search capability, license server and administrator client are all installed in a single session.
- **Preconfigured cPDM environment.** Your delivered cPDM environment will include user groups and roles and their associated access control lists, standard searches, workflow processes, standard reports, dataset types, dataset forms, BOM formats and lists of values.
- **Easy-to-use administration tools for customer-specific configuration.** A comprehensive set of administration tools enable the system administrator to configure the Teamcenter Express cPDM environment to meet customer-specific requirements.
- **Standard implementation packages.** A set of standard implementation packages enable you to quickly get your cPDM environment into production, train your user communities in key use cases, and facilitate a rapid return on your investment.

Teamcenter Express has been carefully designed to meet mid-sized manufacturing companies’ requirements for low total cost of ownership, ease of use and speedy implementation.
Additional Teamcenter Express features

**Multi-CAD support.** Mid-size companies typically need to manage data in multiple CAD formats. This may include data from customers and suppliers, legacy CAD data or data from acquired companies that use a different CAD system. Teamcenter Express provides an excellent multi-CAD capability, including integrations with the most commonly used CAD systems, as well as the ability to integrate data from multiple CAD systems into a single product structure that can be viewed and managed as a complete assembly.

**Microsoft Office integration.** Comprehensive Microsoft Office integration enables users who create Word and Excel documents to directly access the Teamcenter Express CPDM database and easily capture and manage their files. Microsoft Outlook users can view and approve Teamcenter Express workflow tasks. This best-in-class desktop integration facilitates more consistent and efficient completion of everyday tasks, greater data re-use, less errors and reduced rework.

**Preconfigured industry best-practice workflows.** Industry best-practice design release and engineering change order workflows are built in to Teamcenter Express. This enables users to quickly implement electronic design release and change processes that significantly increase engineering team efficiency.

**Product configuration and BOM creation.** Teamcenter Express includes a Product Structure Editor that automatically creates product structures from CAD assemblies; it also enables users to manipulate the product structure and generate BOM reports.

**Best-in-class visualization.** Teamcenter Express incorporates Teamcenter’s lifecycle visualization capabilities to facilitate best-in-class 2D and 3D document viewing, markup and analysis. Design and manufacturing teams can access all product configurations and product knowledge directly from the visualization module.

**Design review support.** Teamcenter Express includes unique design review capabilities that let users create a design review package containing documents and CAD files. Internal users can send this package to external users, who can leverage the freely downloadable XpresReview tool for review and markup.

**Project and program management.** An optional project and program management module provides task and project scheduling, resource management and phase gate templates, as well as import/export capabilities that enable users to exchange project plans with Microsoft Project.

**ERP integration.** Teamcenter Express provides preconfigured integrations with market-leading ERP systems. Standard workflows manage data transfer to the ERP system.

**Multi-site option.** Teamcenter Express offers a proven multi-site option to replicate data between geographically dispersed sites.
The Teamcenter advantage

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<th>Teamcenter advantage</th>
<th>Why it matters</th>
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<tr>
<td>Market-leading platform for PLM deployments</td>
<td>Teamcenter is the world’s market-leading platform for delivering PLM. Its marketplace success ensures your company that the promise of PLM and the ability to deliver proven results has been validated in real-world full-production solutions.</td>
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<td>Comprehensive portfolio of lifecycle solutions</td>
<td>Teamcenter delivers a portfolio of applications that can integrate your product lifecycle phases, participants and product knowledge into a collaborative environment that you can leverage to drive multiple business initiatives.</td>
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<td>Leadership in delivery</td>
<td>Teamcenter is backed by Siemens PLM Software leadership in delivery. We have deployed Teamcenter solutions to more than 5 million users worldwide, the largest customer base of any PLM offering.</td>
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<td>Open PLM foundation</td>
<td>Teamcenter solutions are delivered on an open PLM foundation that future-proofs your company’s investment and facilitates vendor independence. Teamcenter’s open foundation leverages widely accepted standards including Java 2 Enterprise Edition, Microsoft .NET Framework, UDDI, XML, SOAP, JSP technology and the JT™ file format. This open foundation allows Teamcenter to integrate your mission-critical ERP, CRM and SCM investments into your PLM environment, as well as rapidly accommodate new suppliers, partners, customers and other lifecycle participants.</td>
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Teamcenter Express is a configuration of Teamcenter and a key component of the Teamcenter product line, Siemens PLM Software’s comprehensive portfolio of proven digital lifecycle management solutions built on an open PLM foundation. Teamcenter is the world’s most widely deployed PLM system with over 5 million licenses and is backed by Siemens PLM Software’s leadership in delivery. Users of Teamcenter Express can easily expand the scope of their cPDM implementation by taking advantage of Teamcenter’s comprehensive portfolio of applications and its proven scalability in terms of performance and global implementation.

For more information on the Teamcenter portfolio go to www.siemens.com/plm

Don’t let the opportunity to transform your process of innovation pass you by! Contact your Siemens PLM Software sales representative or channel partner now for more information about Teamcenter Express – the world’s first collaborative product development management solution optimized for the requirements of small and mid-size manufacturing companies.
About Siemens PLM Software

Siemens PLM Software, a business unit of the Siemens Industry Automation Division, is a leading global provider of product lifecycle management (PLM) software and services with nearly 6.7 million licensed seats and 69,500 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with companies to deliver open solutions that help them turn more ideas into successful products. For more information on Siemens PLM Software products and services, visit www.siemens.com/plm.

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