Document management

Solving the document dilemma with PLM

Benefits

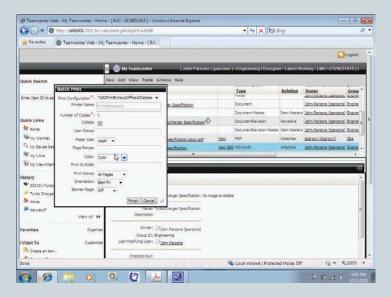
- Improve productivity by establishing standards for document authoring/ collaboration and enabling key information (including document content and properties) to be exchanged and directly leveraged with Teamcenter
- Accelerate time-to-market by leveraging CAD and Microsoft Office tools to rapidly author/produce documents directly to and from Teamcenter
- Improve compliance by using templates to ensure that documents conform to required structure and content
- Improve product launch success by leveraging a single source of product knowledge that facilitates concurrent engineering and aligned launch activity
- Reduce document confusion by leveraging a single source for secure document authoring, review and access
- Improve accuracy by linking all engineering and document teams
- Improve quality by enabling product and document changes to be planned and verified

Summary

Teamcenter® software's document management solution enables knowledge workers using applications from CAD to Microsoft Office and everything in between to directly participate and contribute to the product lifecycle. Authors of spreadsheets, documents, presentations, diagrams and projects can interact with your product lifecycle management (PLM) environment from within their application of choice. Their involvement in this environment facilitates their contributions and enables supporting documents to be managed alongside engineering and manufacturing product information. Authors can use that product information within their documents and participate in multiple product-related processes. Teamcenter's document management capabilities facilitate the standardization and management of documents and document processes, thereby enabling greater productivity and reduced cycle time in the product lifecycle.

Business challenges

Ideally, documents that support product development efforts should be developed in concert with your product development processes. Unfortunately, all too often, document authors create and manage their work in environments with no connection to their product data. As a result, documents are



TEAMCENTER



Document management

Features

Microsoft Office interface

- Managed bi-directional data exchange between Teamcenter and Office documents
- Standardized template usage based on document types
- Embedded Office-centric
 Teamcenter interface
- Synchronization of MS
 Outlook tasks with PLM tasks

Full repository management

- Access and security management by document types, states, user roles, groups and individuals
- Animated and ad hoc workflow
- Change management of versions (releases) and sequences (interim edits)

Search capability

- Support for derived document relationships (where-used)
- Full metadata and full text search
- Saved and ad hoc queries Editing
- Ability to easily search and add JT™ format and other graphic conventions directly into your documentation
- Mark-up management for simultaneous reviews
- Configurable lifecycle states to control release at different document stages

Ease of use

- Embedded Teamcenter tab in MS Office applications
- Automatic rendering to PDF and other neutral formats
- Batch printing with watermarks and stamps
- Graphic workflow development and viewing

often out of sync with product information and progress in an uncontrolled manner that may not support your product schedules and processes.

Misaligned and serial processes can cause companies to miss product launches due to incomplete or improper documentation, poor labeling or incorrect regulatory filings. In some cases, it is not the lack of documents that is the problem but an overabundance of documents that impedes progress as questions concerning accuracy, current status and redundancy frequently occur.

Teamcenter's document management functionality

In today's fast paced global economy, documents critical to product development, such as product plans, trade studies, regulatory filings and marketing materials, are generated by engineers and nonengineering knowledge workers alike. Ensuring that these documents are captured, conform to required formats, meet project deadlines and use the latest product information is hard to accomplish outside of a PLM system. Teamcenter enables you to incorporate document management capabilities into your product development environment so you can:

- Establish standards for document input and collaboration
- Enable knowledge workers to participate and contribute directly to product processes
- Leverage up-to-date product information across all authoring processes
- Automate and optimize publication and distribution

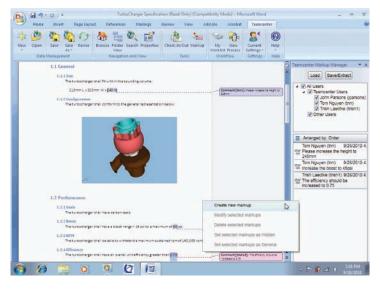
You can use Teamcenter to implement templates for standard document formats, ensuring compliance with policies and regulatory requirements. With a simple configuration, you can define document types, templates, full text indexing and document rendering requirements. This approach enables document authors to quickly create, modify and review documents in a familiar environment, thereby requiring less training to become productive. As a result, documents now can be authored in conjunction with product development to ensure correct content and alignment with your product launch processes.

Facilitating seamless product and document creation

Teamcenter addresses issues traditionally associated with document creation and management, including concerns that these processes:

- · Fail to enforce consistent authoring
- Jeopardize schedule-related deadlines
- Fail to reflect product and project changes
- Inhibit rapid document review
- Promote redundancy

Teamcenter eliminates the repetitive, error-prone processes normally associated with developing and managing documents. Instead, it enables document authors and product teams to create, manage and publish vast amounts of technical systems information in unison. You can leverage Teamcenter to automatically perform full text indexing and document rendering, thereby facilitating more effective reviews. With mark-up management, multiple reviewers can simultaneously



provide comments on documents and reduce cycle time. You also can use batch printing with stamps and watermarks to ensure proper distribution and identify documents that must printed.

Teamcenter can be leveraged to author and publish a variety of documents, including:

- Specifications
- Resource descriptions
- Marketing presentations
- Costing and estimating documents
- Trade studies
- Correspondence
- Regulatory filings

Underlying concepts

Authors can create documents based on template and boilerplate files managed in Teamcenter by document type or access rights, thereby ensuring proper format and content. In-process and completed documents can be saved to Teamcenter, indexed for searching, rendered to neutral formats for review and submitted to workflow processes aligned with product development processes.

Teamcenter lets document authors manage their work in the PLM environment directly from their Microsoft Office applications in the same way that engineers access Teamcenter from within integrated CAD applications. This approach allows authors to use Teamcenter to directly search and access product information and then include this information in documents such as MS Word documents. Excel spreadsheets. Visio diagrams and PowerPoint presentations. An advanced Teamcenter integration for Microsoft Office increases productivity because users stay in a familiar application environment while benefiting from the power of Teamcenter. Document properties and content can be exchanged with

Teamcenter to reduce the need for keystroking (typing), while providing up-to-date content in both the document and PLM envirornment. A single, secure, global source of documents reduces document confusion that would otherwise lead to product decision errors, misfiled regulatory information or poor collaboration.



Teamcenter's document management solution embeds PLM power in Microsoft Office so that you can synchronize your PLM tasks with your Outlook tasks, maintain MS Office documents with related product information and directly participate in product processes that improve schedule and budget performance.

Use cases

Including document authors in your PLM environment enables them to contribute directly to product launch processes and draw upon product content as it's needed in your documents. Teamcenter also facilitates global document collaboration without risking document redundancy as documentation teams work in consistent and more accurate product development processes that drive on-time schedules.

Automating key document processes

Teamcenter's workflow capabilities enable document teams to speed review/approval processes, optimize change processes and trigger rendering and printing processes. You can leverage Teamcenter-driven

workflows to automatically deliver the correct documents to the right people at the right time, thereby facilitating on-time schedules and process efficiency.

Document teams can use Teamcenter's change management capabilities to ensure that product changes are executed through standardized best practices and include necessary document changes. Teamcenter-driven workflows also can enforce standardized document review, approval and delivery processes.

Integrated total product development

Teamcenter's single source of product knowledge brings product engineering and document authors together in an environment where change can be captured and communicated to all product launch stakeholders. Regulatory filings can be created on the basis of current product information. Trade studies, reports and analysis-related spreadsheets can be revision controlled and linked directly to product processes and decisions to facilitate scheduling success.

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