

# **TEAMCENTER**

Connecting people with product and process knowledge, powering collaboration across the product lifecycle

# Teamcenter benefits



In today's highly competitive global marketplace, industry-leading companies need to develop and deliver world-class products.

Product lifecycle management (PLM) makes that happen. An enterprise PLM system drives product and process innovation by enabling your company to build the right product and build the product right.

Teamcenter® software is the world's most widely used PLM system. Teamcenter powers innovation and improves productivity by connecting people with the product and process knowledge they need to function effectively in a globally oriented product lifecycle. Teamcenter's proven digital lifecycle management solutions are built on an open PLM foundation

The benefits of Teamcenter PLM solutions are abundantly clear. You can see immediate and long term business results, including:

**Productivity.** A single source of product and process knowledge empowers team members all the time and everywhere to get more done in less time.

**Teamwork.** Instant collaboration enables your global teams and suppliers to make informed decisions faster – with greater confidence.

Manageability. Teamcenter lowers the cost of PLM ownership by eliminating costly customizations and reducing integration, upgrade and training costs.

Success. You are in good hands with the world's most widely used PLM system. The ability to deliver proven business value is the reason more people choose Teamcenter.

Teamcenter is backed by Siemens PLM Software's leadership in providing PLM solutions that enable companies to make unified, information-driven decisions at every stage in the product lifecycle.

# Where Teamcenter excels



Teamcenter's proven solutions include best practices and standards-based processes that provide a wide variety of benefits, enabling you to:

Drive productivity. You can use Teamcenter to establish a single source of product and process knowledge drawn from disparate authoring systems. People can access this common resource to quickly find needed information, reducing the time it takes individual users to search for information by up to 65 percent and providing decision makers with better lifecycle visibility.

Improve global teamwork. To reduce costs and pursue international marketing opportunities, leading companies are dispersing various operational functions globally. Teamcenter facilitates instant collaboration by enabling global teams to connect, communicate and share information on-demand. With Teamcenter, your teams can iterate more easily, communicate visually, engage suppliers earlier, accelerate overall product development by 25 percent and improve your change process by up to 30 percent.

Take control of your lifecycle. You cannot leverage your product lifecycle as a business asset without visibility into your entire lifecycle. Teamcenter is the only PLM system on the market that offers solutions from portfolio planning through product development, manufacturing, servicel sustainment and retirement. Teamcenter's end-to-end solutions enable you to better understand the impact of change and automate common functional processes across your lifecycle.

# Speed your return-on-investment.

Teamcenter's easy-to-configure service oriented architecture (SOA) reduces the high cost of implementation. You can minimize deployment costs with out-of-the-box applications that don't require costly customization. Teamcenter integrations with best-of-breed domain applications, including Microsoft Office and leading CAD/CAM tools, leverage your existing technology investment and user skills and facilitate a lower cost of ownership.

Choose the PLM leader. Teamcenter has repeatedly delivered quantifiable business results in real-world, full production settings. Teamcenter's proven global leadership gives you the confidence needed for your company to fully embrace PLM.

# Systems engineering and requirements management



# **Advantages**

Mitigate new product development risk by understanding product requirements, program constraints, engineering concerns and manufacturing/supply chain issues

Combine systems level understanding with requirements understanding to make better trade-off decisions

Maximize revenue potential by ensuring you deliver the right product content at the right time to the right market

Facilitate closed loop feedback by recognizing when strategic intent is at risk and informing lifecycle stakeholders of this impending impact

You can use Teamcenter to define detailed customer and market requirements from a whole product perspective and communicate these requirements to your take-to-market teams.

Requirements management. Teamcenter enables you to define, capture, manage and leverage product requirements. You can use Teamcenter parsing tools and content management capabilities to extract key requirements from commonly used information assets. Then, you can link these requirements and manage their dissemination for wider use.

Requirements traceability. You can use Teamcenter to link your product requirements to downstream processes, providing decision makers with visibility to source information about how or why each requirement was determined. You can leverage Teamcenter's workflow and change management capabilities to version, track, manage and route requirements changes to your product teams.

Cross-domain systems definition. You can use Teamcenter to outline a product from a logical systems perspective and decompose these systems to key product requirements. You can use these connected requirements to understand how key characteristics (such as performance, maintainability and ergonomics) are affected by given requirements.

Extended application and systems integration. Teamcenter's open framework links critical systems, such as Matlab/ Simulink, Rhapsody and Sparx, into your PLM environment. You can use Teamcenter's "live" integration with Microsoft Office (Excel, Word and Visio) to interact with data in familiar formats in the context of requirements and as a general user interface to all Teamcenter-managed information.

# Portfolio, program and project management



#### **Advantages**

Select a portfolio mix that aligns with your company's business strategy

Improve user productivity by incorporating Microsoft Office into your PLM environment

Coordinate resources across your projects and drive execution of your product teams' interrelated activities with unified goals, gates, timelines and targets

Provide stakeholders with total visibility into your most up-to-date program information, including rolled-up performance metrics, process metrics, custom strategyspecific KPI and risk analysis metrics

You can use Teamcenter to improve the performance of your new product development initiatives. Teamcenter's portfolio management capabilities enable you to align your product portfolio with your business strategy and select the right portfolio mix for maximizing the return on your product investments.

Teamcenter's program and project management capabilities enable you to drive the operational execution of your programs and projects so they deliver the business results you expect. By combining these capabilities together, you can use Teamcenter to perform:

Portfolio management. You can use Teamcenter to define a portfolio strategy through the use of weighted strategy objectives, scoring models and performance criteria. Teamcenter's portfolio analysis capabilities allow you to quickly evaluate and compare project alternatives and select a portfolio mix that matches your strategic intent. Teamcenter provides visibility to

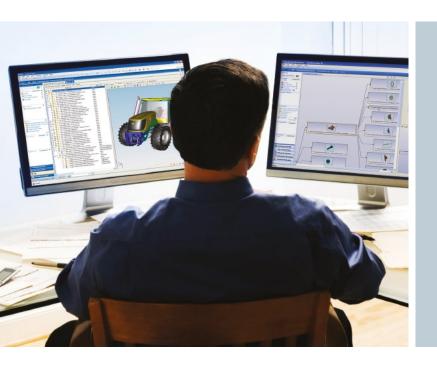
resources and schedules so you can see their impact on current projects during the portfolio planning process.

# Program and project management.

Teamcenter enables product teams to plan your programs in terms of their schedules, work tasks, dependencies, milestones, baselines and constraints and then execute your projects in accordance with these trackable expectations.

Resource, financial and business performance management. Teamcenter allows you to fully understand the workload demands on your teams and the risks that given projects face from shortfalls. You can also associate bill rates with given team resources to exercise both detailed and summary cost controls.

# Engineering process management



# **Advantages**

Provide a single source of engineering knowledge to support your global design teams

Capture workflow and best practices to develop common standards and processes

Make your design process more collaborative and faster by facilitating the continuous aggregation of your design changes

Eliminate time and cost of data translations, design reviews and data validation when working with multiple CAD systems

Teamcenter's capabilities for engineering process management<sup>1</sup> provide a secure environment for capturing and managing information from multiple MCAD, CAM, CAE and ECAD systems.

**Design management.** Teamcenter enables you to bring product design and engineering data from multiple sources and sites into a single source of engineering knowledge. As a result, your teams can easily find, modify, share and collaborate on product design while maximizing part, process and information re-use.

Engineering change and process management. You can use Teamcenter to establish revisions and intermediate version controls over your engineering data. Teamcenter provides preconfigured standards-based processes to initiate, review/approve and execute engineering change.

Design validation. Teamcenter enables you to establish hierarchical product structures that can be decomposed into manageable design and engineering tasks. Teamcenter accelerates your design validation process by enabling you to aggregate design changes continuously. Extended teams can develop and visualize digital mockups based on configured product structures, as well as collaboratively review alternatives. Teamcenter's unique context management capability enables engineers to create, save and re-use the same context repeatedly as they evaluate design impacts.

Siemens PLM Software also provides Teamcenter Express, which is a preconfigured, easy-to-use and easy-to-deploy collaborative product data management solution (cPDM) designed to meet the requirements of small to mid-sized manufacturing companies.

# Bill of materials management



# Advantages

Rapidly and precisely deliver the right product content to market by managing BOM changes across your product suite

Optimize speed-to -market and facilitate better crossdiscipline coordination by synchronizing upstream and downstream BOMs

Improve individual and team productivity by enabling users to work in consistent contexts that provide a common scope to their product data

Document physical (as-built) products for regulatory compliance and product verification

Teamcenter's bill of materials (BOM) management capabilities help you manage complexity by providing total visibility into your product definition and how it evolves across the product lifecycle.

Product configuration and enterprise BOM management. You can use Teamcenter to leverage commonality across your product offerings and facilitate your re-use initiatives. You can use Teamcenter's BOM markup and review capabilities to see the real-time effect of design changes for any applied context or configuration selection.

Teamcenter also offers a special automotive and transportation OEM solution to manage complex BOM information. This solution enhances BOM management with business BOM globalization and BOM-driven digital mockup.

Process-specific data structure and data management. Teamcenter supports traditional BOM management such as releasing parts to production and capturing the physical product BOM — as well as extended BOM management for requirements definition, simulation, manufacturing, sourcing and other lifecycle activities.

# Lifecycle representation management.

Teamcenter enables you to audit your product information and provide visual feedback so you can easily see what information is complete and what is still in progress. Teamcenter's where-used/where-referenced and rollup/compare tools ensure that design impact is fully understood.

**Context management.** Individual users can work with an appropriate scope or "view" of the product configuration based on time, maturity or feature-based criteria unique to their function.

# Compliance management



# **Advantages**

Integrate compliance as a comprehensive strategic initiative rather than as a reporting activity

Reduce the risks of non-compliance by establishing regulatory processes across your entire product lifecycle

Enforce regulatory control by fully documenting your compliance requirements, establishing ownership, tracking accountability and auditing compliance

Ensure executive awareness by integrating compliancerelated status into dashboard summaries, system audits, worst-case analyses and/or risk assessment reports

Teamcenter enforces compliance management as an integrated part of a comprehensive PLM strategy. You can use Teamcenter to capture compliance requirements early, incorporate these requirements into your development processes and track accountability for regulatory compliance.

Environmental compliance. Teamcenter facilitates compliance with Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), End-of-Life Vehicle (ELV), Restriction on the Use of Hazardous Substances (RoHS) and Waste Electrical and Electronic Equipment (WEEE) directives.

Medical device compliance. Teamcenter ensures traceability in accordance with the regulatory requirements for the medical devices industry based on U.S. Food and Drug Administration regulations 21 CFR Part 11 (Electronic Records and Electronic Signature) and 21 CFR Part 820 (Quality System) regulations.

**Export control.** Teamcenter's authorized data access (ADA) capabilities control the export of regulated information and intellectual property (IP) protection based on specifications from the U.S. International Traffic in Arms Regulations (ITAR) set forth by the U.S. Department of State (Office of Defense Trade Controls).

Document and records management. You can use Teamcenter's document and records management capabilities to establish a compliance-related data lifecycle management solution that meets the requirements of the U.S. Department of Defense 5015.2 standard. Teamcenter enables you to define what data you need for regulatory compliance, its format and its retention requirements.

# Content and document management



# **Advantages**

Improve productivity by leveraging SGML/XML to rapidly publish multiple product variant documents

Improve product launch success by synchronizing deliverables developed by product development and documentation teams in a single PLM environment

Reduce documentation costs by maximizing the re-use of content components and supporting multiple delivery formats

Improve user productivity by incorporating Microsoft Office into your PLM environment

Teamcenter's integrated content and document management solutions enable you to manage documentation development/ support in the same PLM environment you use to manage product development.

Teamcenter manages documents as deliverables that can be easily scheduled into your product launches, published for diverse markets in diverse formats and re-used for multiple purposes.

# Structured content management.

Teamcenter enables authors to split their documents into re-usable components that are big enough to justify continued management yet small enough to be re-used in multiple instances. Teamcenter manages structured content created with SGML/XML authoring tools within your PLM environment and supports industry standards such as \$1000D and DITA.

### Tightly integrated graphics content.

Teamcenter tightly links parts or assemblies (e.g., CAD data) in your product definition to illustrations in your product documents. Accordingly, if a definition change occurs, Teamcenter automatically updates the linked illustration in your product document, showing where the illustration appears and giving authorized users the opportunity to evaluate that change and reject or accept it.

### Automated documentation processes.

Documentation teams can leverage Teamcenter's workflow capabilities to optimize their changes processes and trigger audiencespecific publication processes.

### Advanced Microsoft Office support.

Teamcenter provides easily configurable templates that publication teams can use to create documents that meet your content and format requirements. Auto-rendering and review/markup tools are available to facilitate faster and more efficient cycle times.

# Formula, package and brand management



# **Advantages**

Improve productivity by leveraging a comprehensive global collaboration environment that unifies formula, packaging, artwork, and brand data and processes with the rest of your enterprise

Drive on-time delivery by synchronizing the development and execution of your formulated and discrete products – and leveraging their associated packaging and brand information

Eliminate costly recalls by embedding requirements and regulatory information across your lifecycle processes

Dramatically reduce development and sourcing costs by standardizing and re-using packaging and artwork components

Teamcenter's formula, package and brand management solution manages formulated products, packaging, artwork and brand information as part of a unified PLM platform.

By unifying discrete and formulated product information with packaging and brand information, you can realize gains in speed, productivity, cost efficiency, and compliance.

### Brand knowledge management.

Teamcenter manages information about a brand, its characteristics, communications, related analyses and assets as part of the unified PLM platform.

Formula management. Teamcenter manages complete formula information as part of the unified PLM platform. Teamcenter facilitates multi-level recipe management, allowing you to manage country, plant and regional variations.

### Packaging and artwork management.

You can manage all packaging and artwork knowledge within a unified PLM platform. Packaging requirements and regulatory information can be captured and incorporated into your product development process.

### Global specification management.

Teamcenter enables you to represent specifications as intelligent, configurable relationships between objects. This allows you to leverage every element in a specification across the entire product and production lifecycle.

# Supplier relationship management



# **Advantages**

Automate supplier integration and manage supply chain design/process data at a granular level

Align Teamcenter-driven sourcing data with the BOM to provide insight into supplier cost impact on the final product

Provide comprehensive supplier information access, enabling all stakeholders to quickly find, qualify and monitor suppliers while facilitating better component purchasing decisions and supplier analytics

Leverage buying power by understanding enterprise spend at the item level and using a repeatable process for rationalizing and reporting spend information

Teamcenter's supplier relationship management (SRM) solution integrates your extended enterprise and its suppliers and their associated information across all stages of the product development process. Teamcenter connects procurement and suppliers more closely with design teams, earlier in the process to help maintain and improve the levels of quality, service, and innovation.

RFx with data exchange. Teamcenter's request-for-BOM collaboration capabilities facilitate event-driven exchange of item-related Teamcenter information.

Teamcenter's request-for-business information capabilities streamline and standardize the data collection processes associated with issuing RFIs, RFPs and RFQs, while enabling you to collect detailed product information such as cost breakdowns.

**Supplier management.** Teamcenter enables you to record and categorize numerous supplier capabilities and leverage this information in your efforts to find, select and

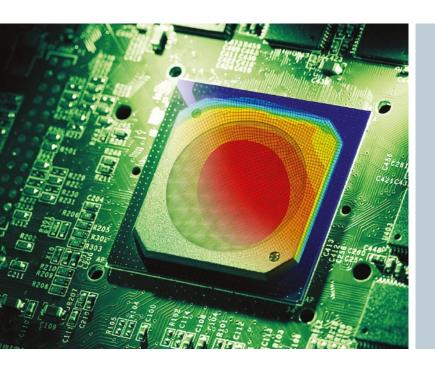
monitor potential supply sources. Teamcenter integrates data from multiple sources for use in quality, risk and performance scorecards.

# Spend management and analytics.

Teamcenter consolidates purchasing data into common spend categories and hierarchies so that you can track and analyze spend activities, assess supply risks, and identify saving opportunities.

Internet negotiation management (reverse auction). Procurement teams can leverage Teamcenter to bring the negotiation process online for virtually all goods and services. Online auctions provide a valuable tool for facilitating price transparency and analysis.

# Mechatronics process management



# **Advantages**

Manage your mechatronics development processes in one cohesive and integrated environment, improving productivity and enabling otherwise disparate disciplines to work together more effectively

Facilitate earlier and better decision making by enabling teams to understand the entire electro-mechanical product and how customer and product requirements relate to their component designs

Enable individual disciplines to more clearly understand how their development efforts impact the product's roadmap and its related cost, scheduling and quality constraints

Teamcenter's capabilities for mechatronics process management establish a rich environment where multiple disciplines can work together to develop electro-mechanical products comprised of mechanical, electronic and control system (electrical interconnect) technologies.

Each engineering discipline works in its own development environment using tools-of-choice to design their components. By combining your current tools with other Teamcenter-provided applications, you can transform disconnected tools and processes into an integrated design solution that enables you to lower costs and improve quality while increasing design productivity.

Integrated data and product structure management. Teamcenter's data, document, record and content management capabilities enable you to integrate all critical mechatronics information.

### Integrated change and process

management. You can use Teamcenter to implement best practice workflows that enable cross-discipline teams to understand change impact, manage review/approval processes and execute approved product changes.

### Visualization and collaboration.

Teamcenter's digital mockup, analysis and markup capabilities let cross-discipline teams collaboratively investigate and validate a wide range of performance and quality issues at the integrated product level.

# Mechatronics requirements associativity.

You can use Teamcenter to define, search, visualize and navigate relationships, interactions and dependencies between data elements across domains, resulting in lower costs, improved scheduling and higher quality.

# Manufacturing process management



# **Advantages**

Enable product and manufacturing teams to work in parallel, reducing planning time by 40 to 50 percent

Increase productivity and support lean manufacturing and design-for-manufacturing initiatives

Synchronize BOM and BOP activities to enable teams to better understand product change

Teamcenter's capabilities for manufacturing process management enable you to manage manufacturing data and process, resource and plant knowledge in the same PLM environment that you use for product development. By leveraging these capabilities, engineering and manufacturing teams are able to collaborate and become more efficient across the product lifecycle.

#### Single source of manufacturing

knowledge. Teamcenter provides a single source of manufacturing knowledge that enables you to rationalize and leverage your engineering assets and synchronize your manufacturing deliverables in a parallel workflow.

#### Advanced BOM/BOP management.

Teamcenter associatively relates essential bill of material (BOM) information with your manufacturing bill of process (BOP). You can leverage Teamcenter's configuration management capabilities to represent the physical decompositions of all activities related to manufacturing assembly.

### Production and shop floor management.

Teamcenter's tight integration with Tecnomatix® software enables your PLM environment to leverage manufacturing and production data through a complete suite of digital manufacturing solutions. Teamcenter's open service oriented architecture (SOA) integrates CAM, ERP and MES systems-of-choice into your PLM environment. Teamcenter provides standardized process templates and automated work instructions to simplify the transfer of planning information to your shop floor.

# Manufacturing resource visibility. With

Teamcenter, you can classify multiple manufacturing resources (tooling, fixtures, machinery and robots) and establish best practice processes to manage their use. Integrated tools enable you to mock up, visualize, analyze and optimize plant layout and material flow.

# Simulation process management



# **Advantages**

Speed up simulation by enabling simulation teams to easily find and re-use data, create the right models/ assemblies and rapidly react to design changes

Leverage simulation to improve your products by integrating CAE into a wider product development context and enabling product teams to interactively visualize simulation results without requiring the use of expert tools

Minimize implementation cost/risk with a common/secure data management infrastructure for your globally distributed engineering teams and an open standardsbased platform

Teamcenter's capabilities for simulation process management are specifically designed for engineers and analysts. By using Teamcenter's simulation-specific data, workflow and process management capabilities in a complete digital product development environment, global engineering teams can be more effective.

Simulation data, assembly and change management. Teamcenter can be configured solely for managing CAE data or for managing simulation data in context with product data. Teamcenter enables you to easily find and re-use the right data for simulation work, including requirements, designs, existing models and results from earlier simulations. When designs change, you can visually compare and rapidly update models and assemblies based on the latest design content.

Integrated simulation workflows and 3D visualizations. Teamcenter provides standard workflows to initiate, monitor, review and approve simulation work so that you can be confident that results will arrive on time. You can quickly find all simulation work related to a specific product variant or configuration. All team members can interactively visualize structural, fluid and motion results without needing to use expert tools.

Open, secure and scalable platform for simulation management. Teamcenter's scalable platform enables you to easily configure and launch CAE applications and store results in the right context. Teamcenter provides your distributed engineering teams with secure global access to all simulation data, enabling these teams and your suppliers to collaborate more effectively.

# Maintenance, repair and overhaul



# **Advantages**

Enable service organizations to plan and deliver MRO services more efficiently

Maximize the operational availability and reliability of your managed assets

Provide asset knowledge to service teams at point of need so they can understand an asset's requirements

Establish feedback loops to bring service concerns to the attention of product developers

Support preventative, condition, and reliability-based maintenance operations

Teamcenter's maintenance, repair and overhaul (MRO) solutions establish after-sales capabilities within your PLM environment. Teamcenter provides total visibility into complex products that function as capital assets.

OEMs can use Teamcenter to manage product knowledge throughout the service life of their products. Service organizations can use Teamcenter's configuration-driven MRO to plan their operations, optimize service execution and better utilize assets and part, tool and equipment inventories.

Service data management. Teamcenter provides total visibility into long-life assets, including configuration knowledge and status, as well as service event activities that can be delivered in a dashboard to support PBL/SLA contracts.

Service request management. Teamcenter enables service organizations to efficiently manage service requests in ways that improve responsiveness and increase customer satisfaction, while facilitating cost controls and service standards.

**Service planning.** Service organizations can use Teamcenter to create, manage and leverage planning information to support preventative, condition or reliability based maintenance models.

Reporting and analytics. Teamcenterenabled business intelligence allows organizations to examine operational information from services so they can discern trends in asset performance/reliability and track/analyze asset and organizational KPIs.

# Reporting and analytics



# **Advantages**

Create a basis for establishing, measuring and analyzing key performance metrics to drive better process performance

Rapidly and accurately aggregate data from multiple application sources into an enterprise information integration (EII) solution

Easily extend these capabilities to systems outside the product lifecycle by leveraging Teamcenter's open framework, flexible data input formats, application-specific APIs and JDBC support for any relational database

Reduce the total cost of ownership associated with implementing a reporting and analytics capability

Teamcenter's capabilities for reporting and analytics rapidly transform data from enterprise systems into insightful and actionable analyses for timely decisions.

# Powerful data aggregation capabilities.

You can aggregate Teamcenter-managed data while leveraging Teamcenter business rules and security models to maintain data integrity/security. You can bring in data from virtually any application while honoring that application's security and business conventions.

Rich dashboard and after-lifecycle reporting capabilities. Teamcenter enables you to generate executive, program, process and KPIs/dashboards and reports based on this aggregated data into customizable html formats for viewing and printing. You can save these reports, email them, generate them into PDFs and export them into Excel.

You can view, report and analyze Teamcenter data from multiple perspectives (e.g., by leveraging drill-up/down and drill-through data-centric and graphical views). You can optimize this data through caching and the use of data cubes that present views of the same data for multiple types of analysis, including historical performance and beforetrend analysis.

Open data framework and advanced capabilities. Users can leverage advanced features and Teamcenter's SOA-based open data framework to rapidly deploy and maintain the system's reporting and analytics capabilities, thereby minimizing your total cost of ownership.

# Community collaboration



# **Advantages**

Securely engage globally distributed team members in a rich virtual collaborative environment that combines the advantages of PLM with the familiarity of Microsoft's desktop conventions

Quickly resolve quality issues and re-use acquired knowledge to rapidly bring innovative new products to market

Leverage knowledge from your ERP, SCM and CRM systems alongside your Teamcenter-managed product knowledge

Enable team members to view, mark up and review/ approve multi-CAD designs in virtual design reviews without requiring them to have a CAD license or CAD authoring experience

Teamcenter's community collaboration capabilities establish a secure and adaptive environment where your distributed multidisciplinary teams can work together with rich product data across the entire product lifecycle – without having to learn how to use a PLM or CAD system.

With Teamcenter, you can engage your suppliers, allied partners and trusted customers in a collaborative community that facilitates concept studies, program reviews, design reviews and engineering change reviews. To support these activities, Teamcenter provides the following community collaboration capabilities.

Secure PLM collaboration. Your team can quickly and securely collaborate using Teamcenter data in a dynamic virtual environment where new members and other innovation sources can be easily added to contribute to the product development process.

**Virtual design reviews.** You can conduct virtual design reviews to quickly resolve quality concerns, mitigate costs and preserve acquired knowledge for re-use to avoid future issues.

Teamcenter's integrated visual collaboration capabilities, team members can view, analyze and mark up data from any CAD or document format using the CAD-neutral  $JT^{\mathbb{N}}$  format,

Visual product collaboration. With

as well as route these "visual issues" for resolution.

Synchronous and asynchronous collaboration capabilities. Team members can leverage 3D product visualizations, application sharing, digital calendars/ schedules, instant messaging, document routing/notification services, discussion boards and shared documents, folders and libraries.

# Lifecycle visualization



# **Advantages**

Enable stakeholders to clearly illustrate and understand product and process issues through unambiguous 3D

Bring all stakeholders into your processes by enabling people who do not have a CAD authoring system to engage early and often

Significantly reduce time and cost spent building physical prototypes by using digital prototypes instead

Extend your visualization backbone with process-specific add-ons, including immersive virtual reality, automated clearance analysis, virtual-human ergonomics, tolerance simulation, animation creation, quality validation and assembly path planning

Teamcenter provides your PLM environment with a consistent and scalable visualization backbone that teams can use to view your products as they evolve across their lifecycle. These lifecycle visualization capabilities enable team members to visualize product data in 2D and 3D formats, even when this data is created using diverse authoring software. Teamcenter's lifecycle visualization capabilities:

- Eliminate ambiguity that can result in errors while streamlining your PLM processes by replacing paper-based workflows
- Eliminate wasted time and travel while improving productivity by providing digital tools for virtual design reviews
- Reduce or eliminate physical prototypes and their associated costs and time demands by facilitating sophisticated digital mockups

Teamcenter's visualization capabilities are powered by open and published JT technology, the world's common 3D language for PLM collaboration, visualization and interoperability.

You can extend your PLM environment at your discretion by implementing capabilities that allow lifecycle stakeholders to use:

**Full function 2D capabilities and basic 3D visualization** for viewing into the product lifecycle

Enterprise 2D/3D view and markup capabilities for interacting with advanced product data

**Full function 2D/3D analysis** for performing virtual design reviews of multi-CAD assemblies on a collaborative basis

**Sophisticated digital mockup capabilities** for assembling a complete digital prototype and performing advanced analysis to validate form, fit and function issues

# Enterprise knowledge foundation and platform extensibility services



# **Advantages**

Rapidly and securely deploy domain and industry-specific solutions to speed your time-to-value

Reduce costs and shorten implementation schedules by quickly configuring Teamcenter without costly customizations

Leverage your investments in other enterprise applications and create enterprise-wide business processes across multiple applications

Extend Teamcenter with specialized custom applications that meet your unique PLM requirements while ensuring ease of maintenance and future upgradeability

# Enterprise knowledge foundation

Teamcenter's enterprise knowledge foundation lets your organization bring product, process, manufacturing and service information from diverse authoring applications into a single, secure source of knowledge.

Comprehensive PLM. Teamcenter manages all of the data types that define your products throughout an entire lifecycle, while facilitating advanced search, navigation, security and scalability.

**Process enablement.** Teamcenter captures and automates processes and best practices across your PLM environment with an advanced workflow engine and out-of-the-box change management capabilities.

**Foundation for deployment.** You can rapidly deploy Teancenter's end-to-end solutions from a single foundation to speed your PLM investment's time-to-value.

#### Platform extensibility services

Teamcenter's platform extensibility services enable you to realize value from your Teamcenter investment quickly and cost effectively.

**Configuration services.** Teamcenter can be easily tailored to fit your business without developing costly custom software.

Connection services. Teamcenter can be seamlessly integrated with other enterprise applications (including ERP and other Teamcenter installations) to enable enterprise-wide business processes.

**Customization services.** Teamcenter can be extended with maintainable and upgradeable custom software to meet your specialized business needs.

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### **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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