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Teamcenter 8

Bill Boswell
Senior Director
Teamcenter Marketing

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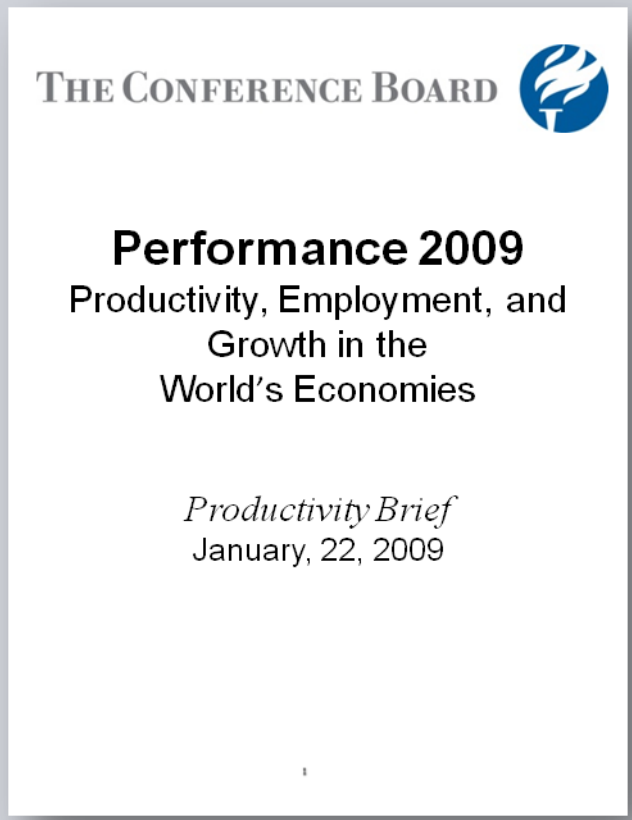
Innovation Remains Critical for Productivity Recovery

World productivity growth slowed by more than a full percentage point in 2008.

Global productivity growth is likely to drop to 1.8 percent in 2009.

…"any attempt to get back to the structural **growth** trend **will come from increased productivity** through **investment in new capital and innovation** -- not just cost cutting of the current resource base."



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Innovation and Productivity
Top Product Development Strategies

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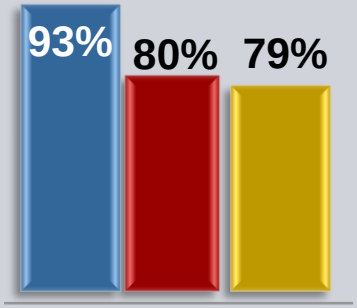
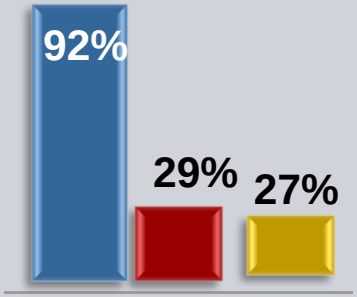
Best-in-Class Companies Lead The Way

Aberdeen Group
A Harte-Hanks Company

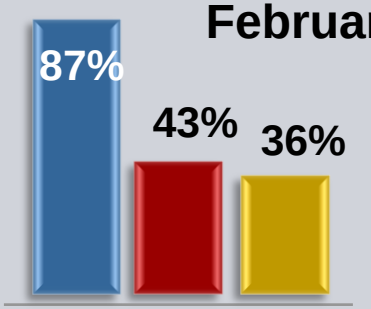
February 2009



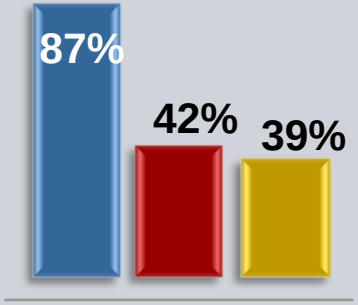
Align to Customer Needs



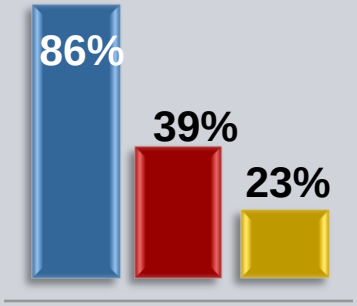
Collaborate Across Departments



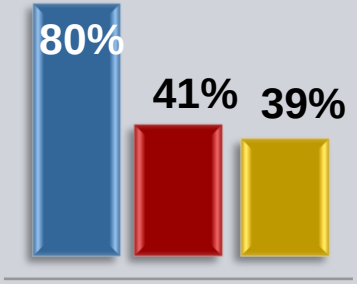
Track and Manage Projects



React Quickly to Product Issues



Streamline Product Development



Develop Earlier or Concurrently

Best in class Average Laggard

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Source AberdeenGroup. Top Five Principals for Product Development Success, February 2009

Teamcenter
The world's most widely used PLM system

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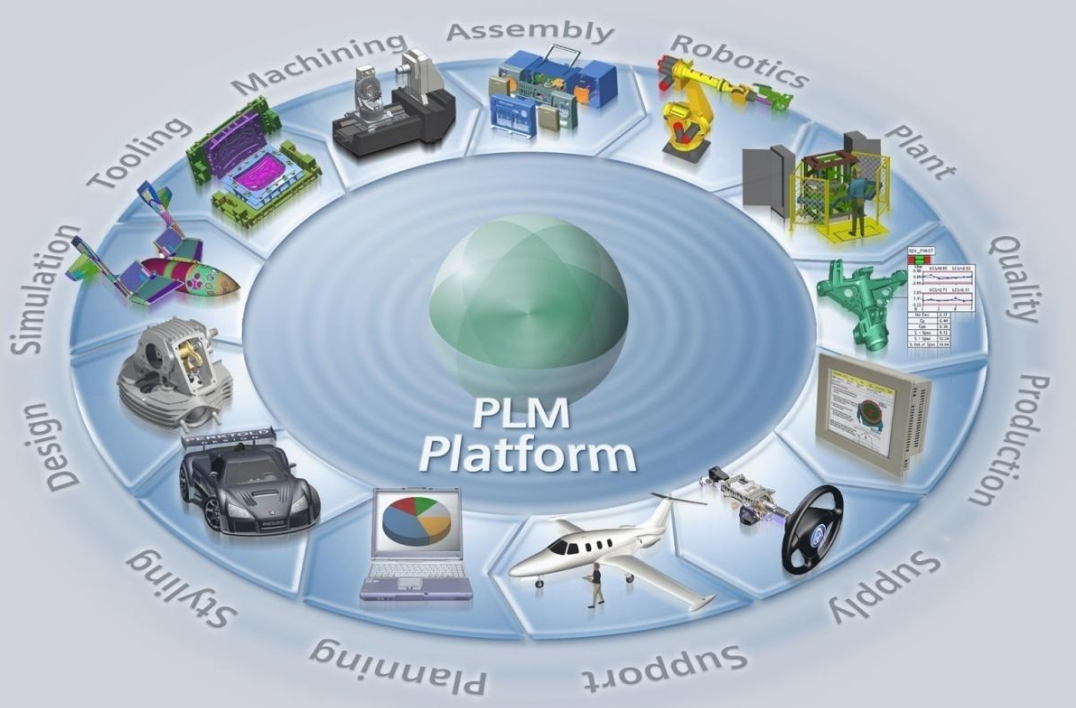

Drive Productivity:
Single Source of Product and Process Knowledge

Improve Teamwork:
Instant Collaboration

Take Control:
Powering End-to-end PLM

Speed ROI:
Lowering Cost of Ownership

Choose the Leader:
Proven Global Leadership

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Individual Productivity
with Teamcenter 8

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Find information fast in the context you need

Teamcenter inside your tools and processes

Instant collaboration for improved teamwork

http://www.istockphoto.com/file_closeup//2967161-look-deferent.php?id=2967161

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Individual Productivity
with *Microsoft Outlook Integration*

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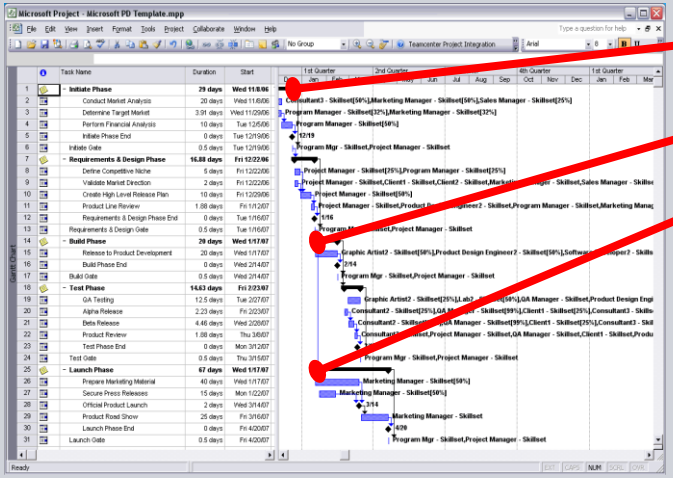
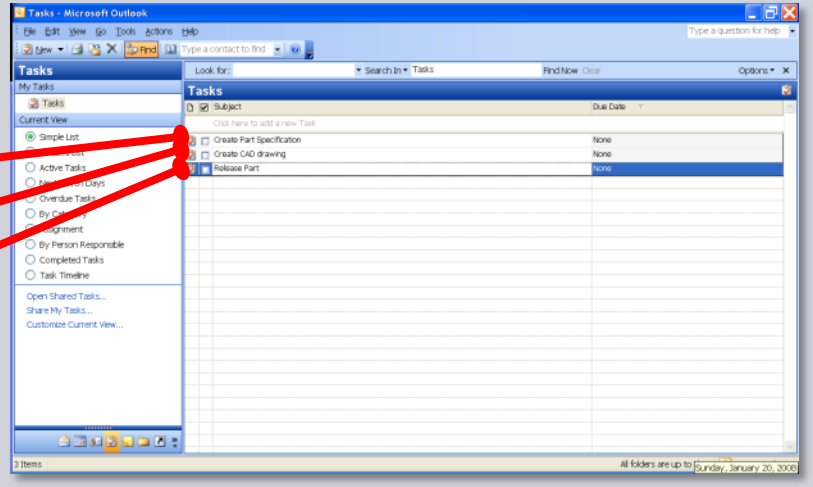
- Browse & Search within Teamcenter
- Insert data from Teamcenter to Outlook New message window
- Save an email to Teamcenter
- Synchronize the Teamcenter Inbox into Outlook as Tasks
- Track and manage Teamcenter tasks in Microsoft Outlook
- Perform signoff on tasks





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Individual Productivity

with Live Microsoft Office Integrations to Teamcenter

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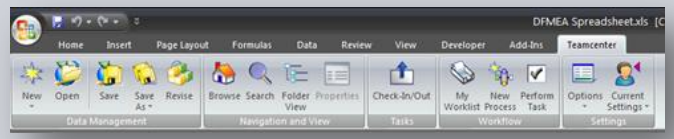

- Access Teamcenter from within Microsoft Office
- Edit data in Microsoft Office with live changes in Teamcenter
- Insert data from Teamcenter into Word, Excel, or PowerPoint

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Individual Productivity
with Teamcenter 8 inside your ECAD tools and processes

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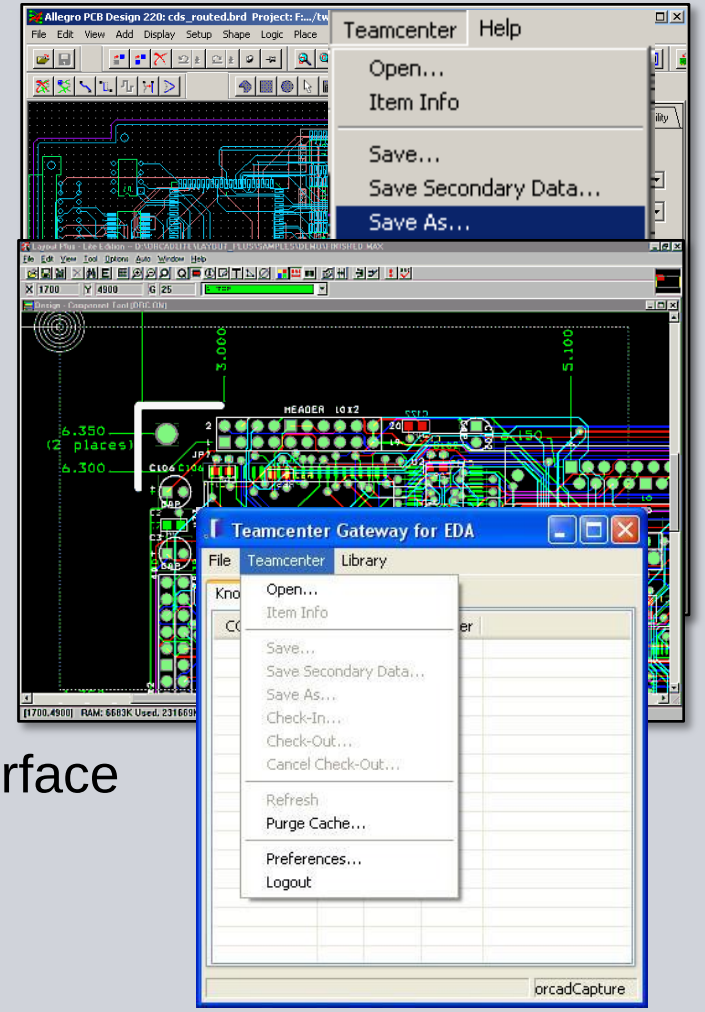
Integration with popular ECAD logic capture and physical layout tools

Embedded integrations
- ECAD tool user interface
- Cadence: Allegro, OrCAD
- Mentor: Board Station, PADS, Expedition
- Intercept: Pantheon
- Altium: Designer

Gateway-based EDA integrations
- Window-base, menu driven application interface
- Custom tool integration



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Individual Productivity
with Teamcenter 8 inside your Software tools and processes

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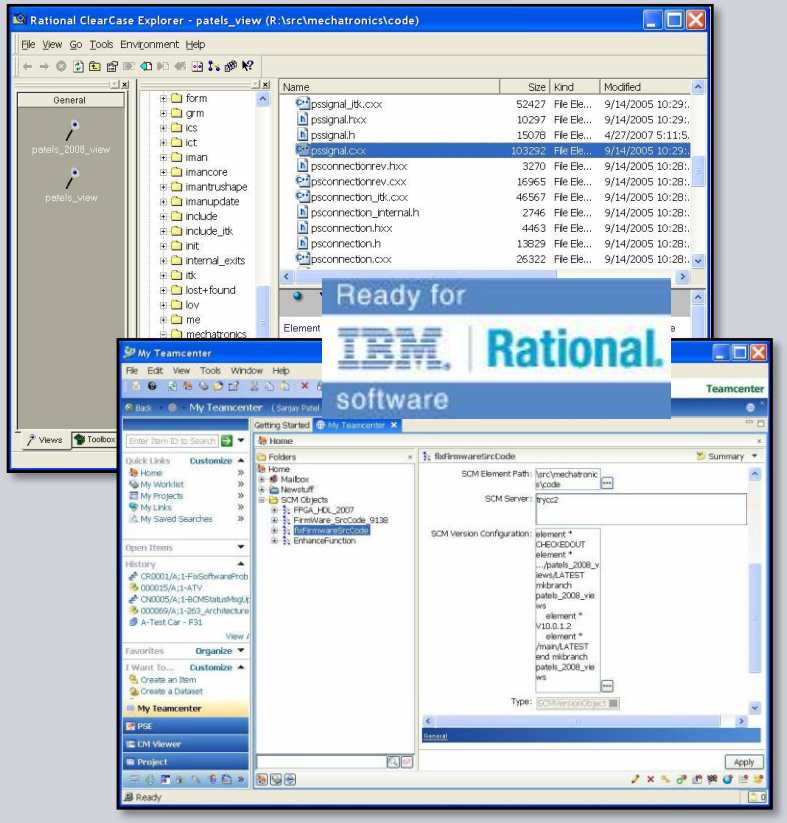
Software Engineering → *Software Components* → *Modeling* → *Software Design* → *SW Component Management* → *Analysis & Flash*

Accelerate software development and improve its quality

- Tie product requirements to software projects
- Establish structured software development workflows
- Develop source code in a native development environment
- Access ClearCase metadata in PLM
- Manage software as part of your product configuration



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Teamcenter 8 Integration for NX

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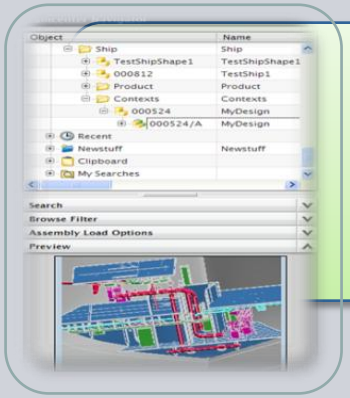


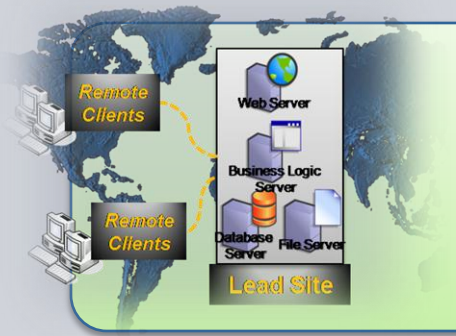
Teamcenter Inside NX

- Live PLM access for item browsing, product status information, searching, check-in/out, where-used/referenced

Single Source of All Product Data from Design to Manufacturing

Visualization and Validation

- Visualize Assembly-level design data inside of Teamcenter
- Associate Teamcenter Requirements to NX expressions



4-Tier Client Performance

- Global design teams with real-time access to centrally managed data at latencies up to 250ms

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Teamcenter 8 Integration for CATIA

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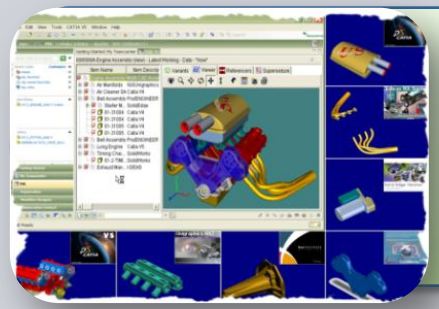
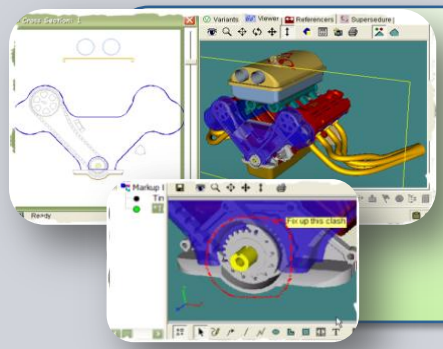
Whole Product Lifecycle Management for CATIA



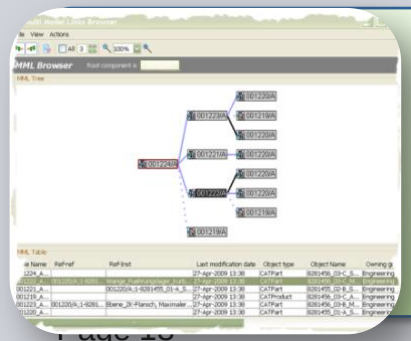
Single Source

- Enables concurrent CATIA V4/V5 and In-Context Multi-CAD Design Management



Consistent Visualization

- Leverages Teamcenter Consistent Visualization enabling Multi-CAD Digital Mockup and Validation



V5 Relational Design and Global deployment

- Collaboration, Configuration, Change, Visualization, Manufacturing, Multi-Tier Deployment and Supply Chain Integration

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Teamcenter 8
Integration for Pro/E

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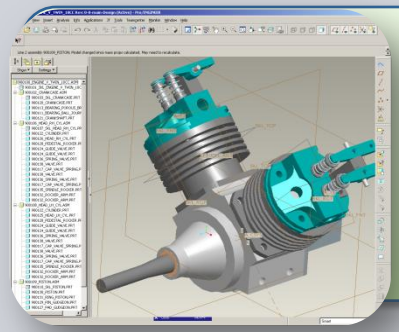
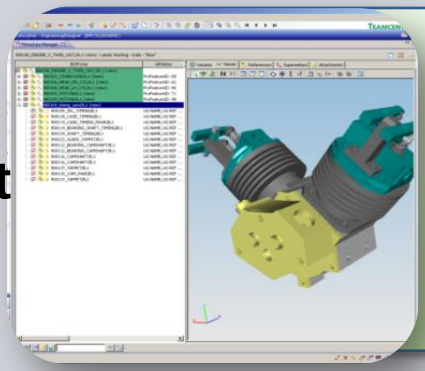


Single Source

- Leveraging Teamcenter access and change control for workgroup collaboration with a single source of product data

Architected for large assembly management for globally distributed design groups



Consistent Visualization

- JT translation and import to enable Design in Context for MultiCAD assemblies
- Visualize and load simplified large assembly structures

Optimized for deployment

- Support High latency, low bandwidth networks – to support globally distributed design centers linked to a common database

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Individual Productivity

Instant collaboration with Teamcenter 8

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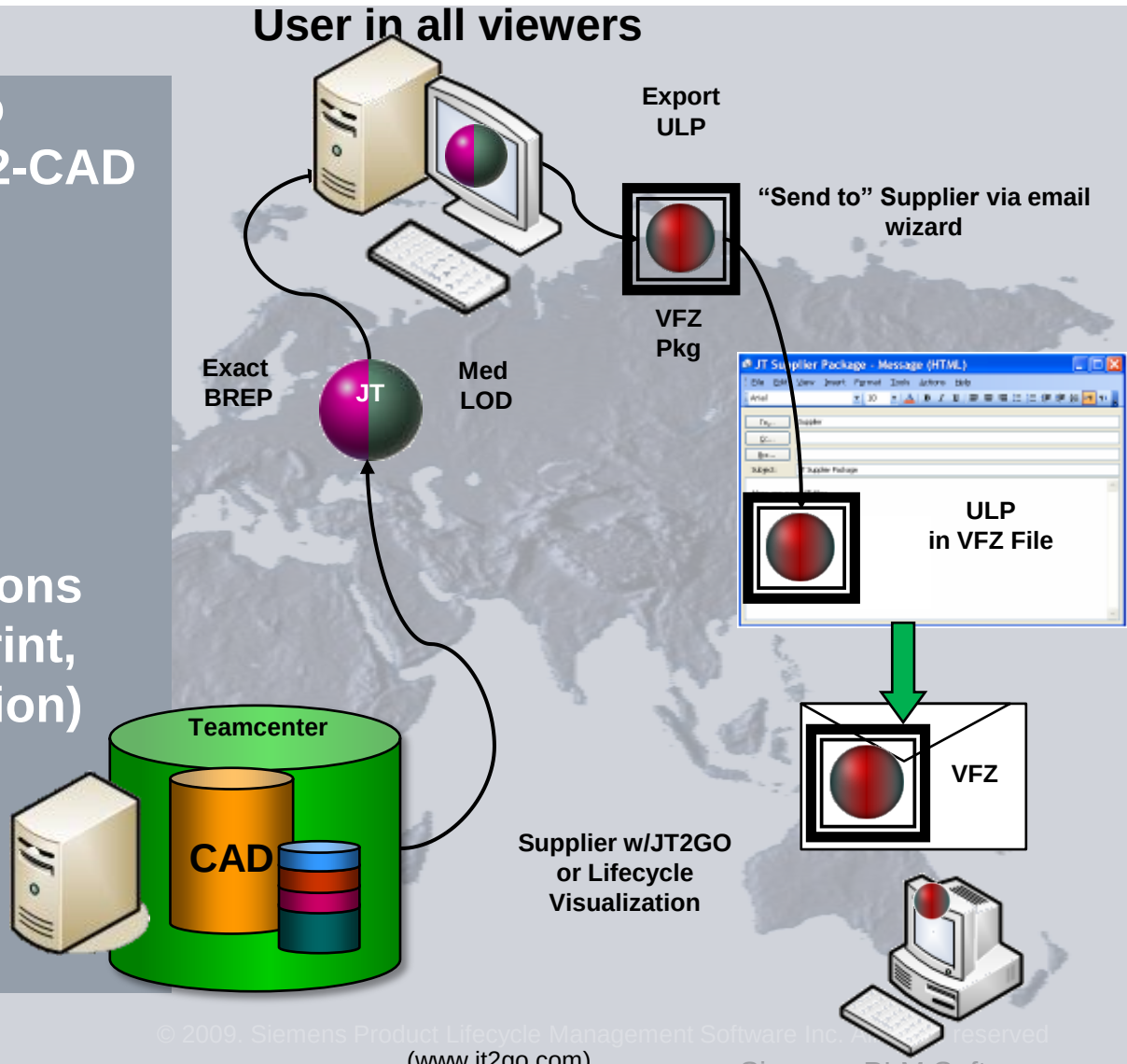
Easily extend 3D data to suppliers without CAD-2-CAD translation

Lightweight, portable packages to minimize bandwidth loading

Control permission options (Save, Copy, Markup, Print, Forward, Measure, Section) without sacrificing intellectual property



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Individual Productivity

JT Ultra-Lightweight-Precise (ULP) Component

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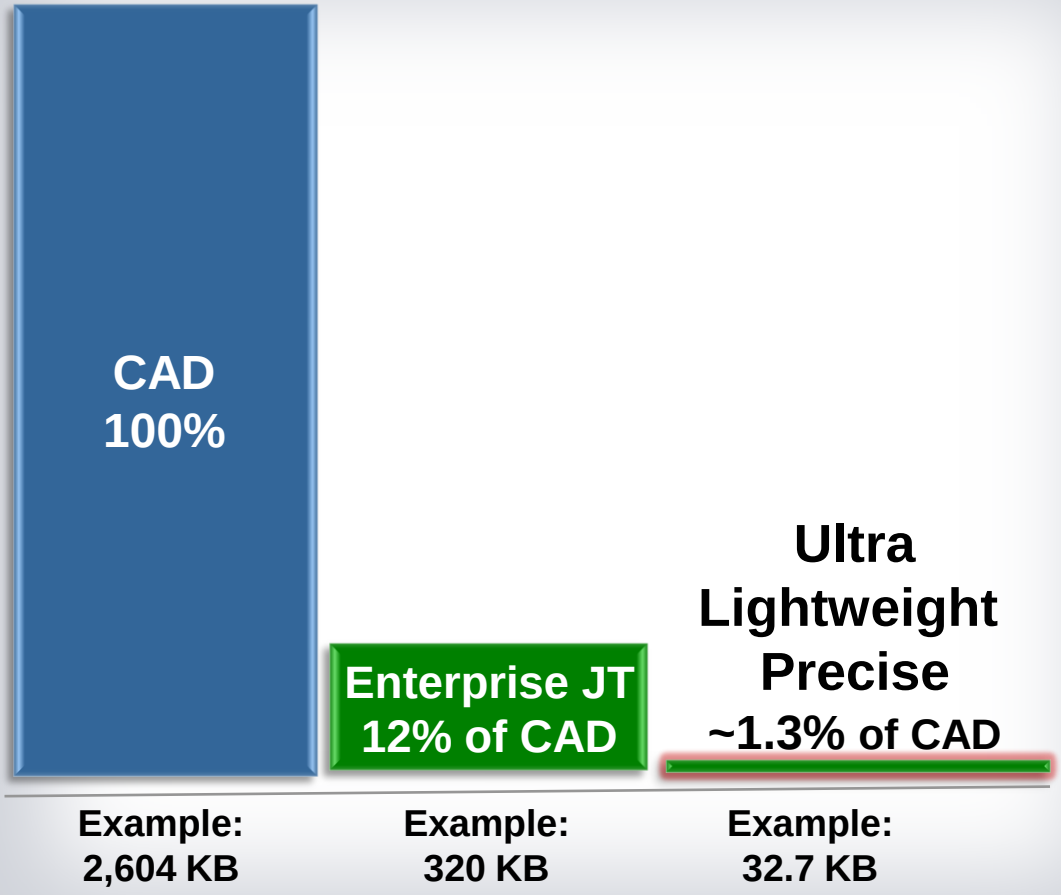

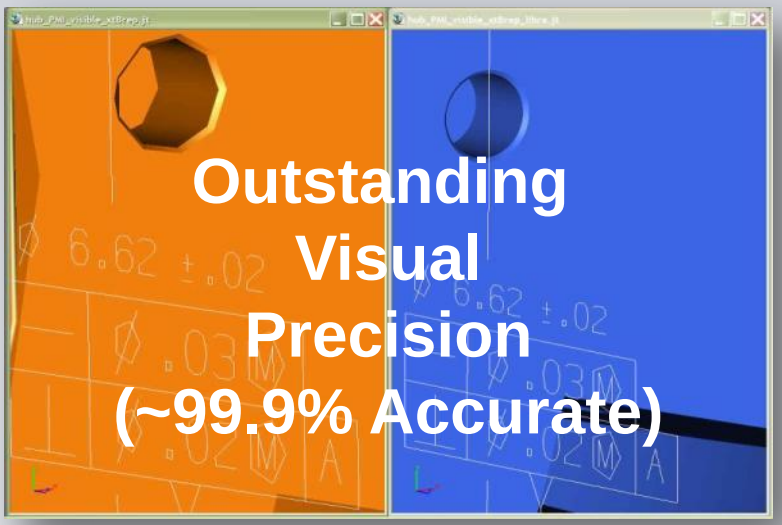

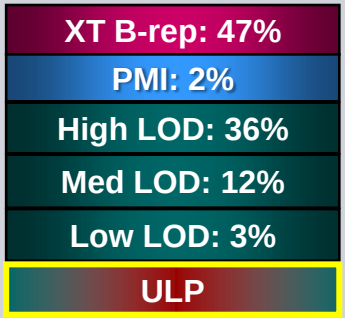

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Application Productivity
with Teamcenter 8

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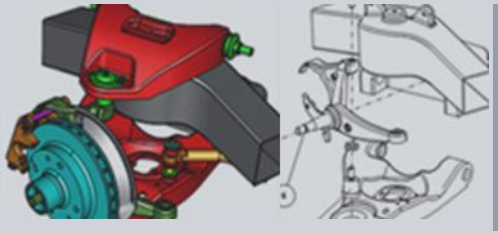
End-to-end PLM solutions for Industry

Turn on application solutions when ready



Content and Document Management

Formula, Package, and Brand Management

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Application Productivity
with Teamcenter 8

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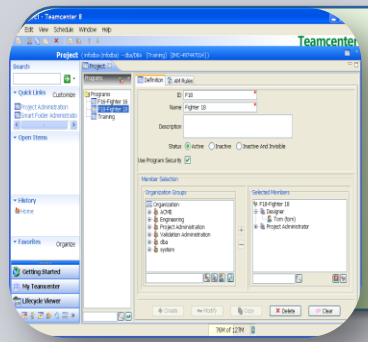
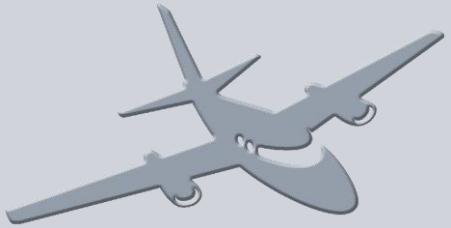
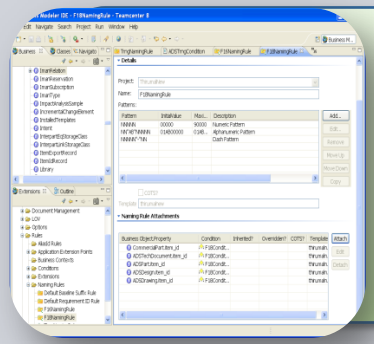


Program Context

- Guarantee data is created and managed in the appropriate program and organizational (cage code) context

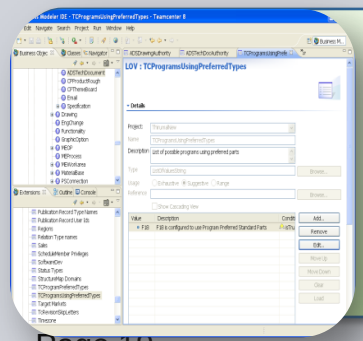


Use Programs to Manage Data and Access (security) more Efficiently



Program Configuration

- Configure each program to operate in either a part centric or document centric mode
- Define item naming & revisioning conventions (patterns/numbering)



Program Preferred Parts

- Define standard parts
- On a program basis, restrict usage of standard parts to only those that are preferred/approved

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Teamcenter 8
Consumer Packaged Goods

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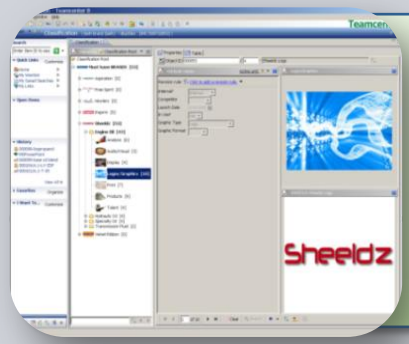
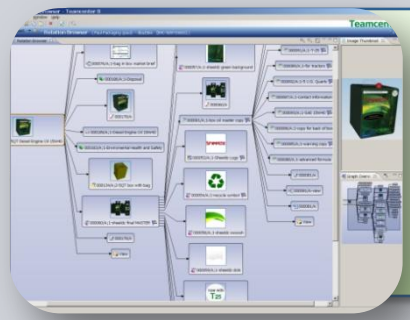


Brand Information

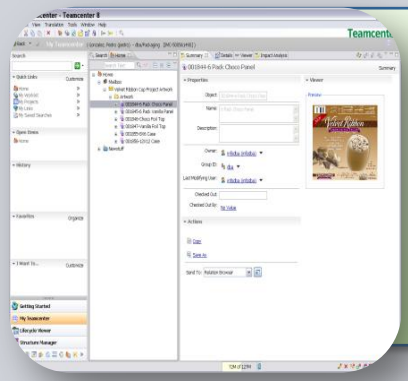
- Define a brand hierarchy
- Create and reuse brand assets
- Associate trade items with finished products

Link discrete and formulated product development with packaging, artwork & brand management



Specifications

- Define specifications in many forms; structured data, configured data, documents, reports, items and properties including formula/recipe information



Packaging and Artwork

- Capture marketing requirements (coarse or fine grain)
- Manage all package and artwork components in a single source/unified environment

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Teamcenter 8
Softlines, Footwear & Accessories

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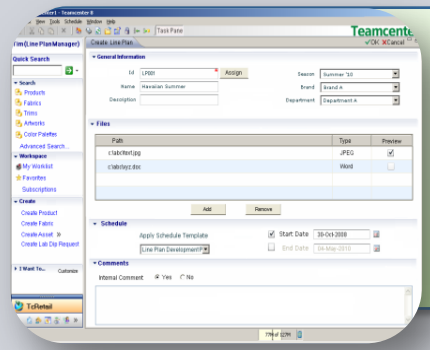
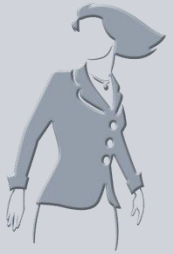
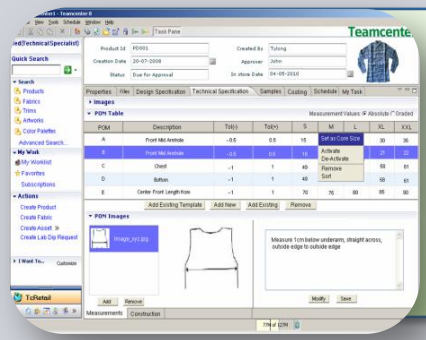


Line Planning

- Create a line plan using a schedule template and assign start/end dates
- Associate styles to items in line plans for easy access to line plan details

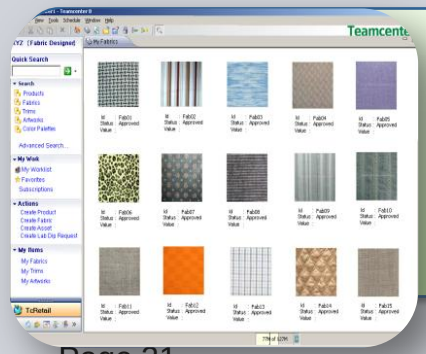


On-trend, on-time product development



Style Management

- Define color palette per season
- Specify grade rules per POM and construction details
- Manage samples and fit evaluation for multiple vendors



Asset Management

- Develop fabrics in parallel with styles
- Manage lab dip process with mills
- Classify and manage trim libraries
- Support new trim requests

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Medical Devices

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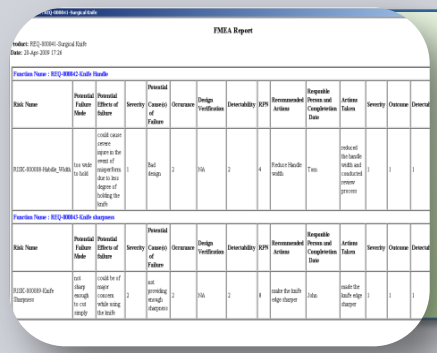
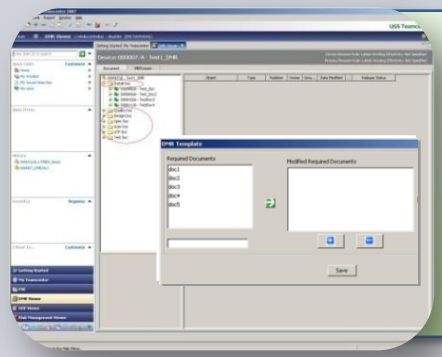

FMEA Report

Risk Management

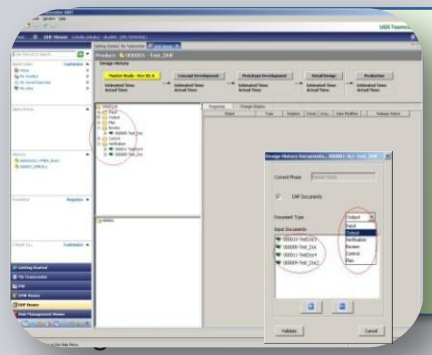
- Identify product functions
- Use the Failure Mode and Effect Analysis (FMEA) solution to mitigate product risks

Design, manufacture, and market safer and more reliable products



Device Master Record

- Organize DMR documents in folders based on document category
- Easily configure the required set of documents in the “DMR Checker”



Design History File

- Classify documents in terms of industry standards and organize them in corresponding folders

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Teamcenter 8
High-Tech and Electronics

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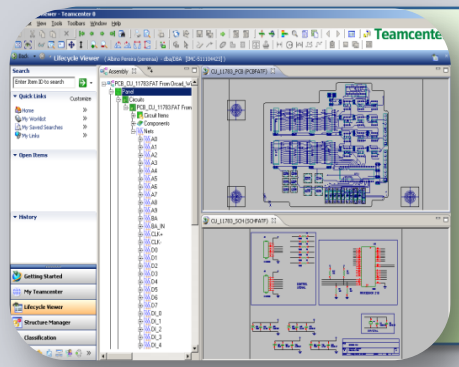
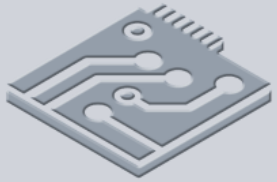
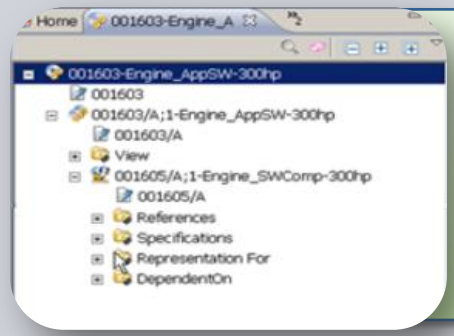


Electronics Design Lifecycle

- Synchronize product data with EDA
- Consolidate disparate design information
- Visual verification and collaboration
- BOM verification and versions comparison
- PDX Data Exchange

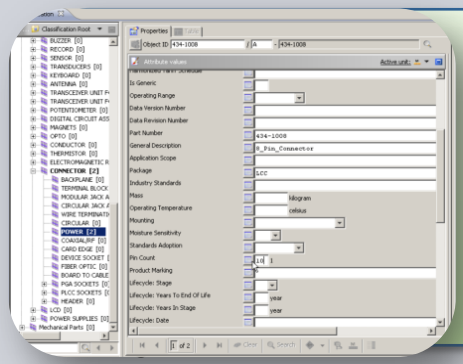


Streamlining Electronics Design and Development



Software Lifecycle Management

- Manage functional units, packages and software deliveries
- Software change and configuration management at Product level



Electronic Part Lifecycle Management

- Part information into one single source
- Enable selecting the right part at design time
- Environmental Compliance
- Part Supplier Management

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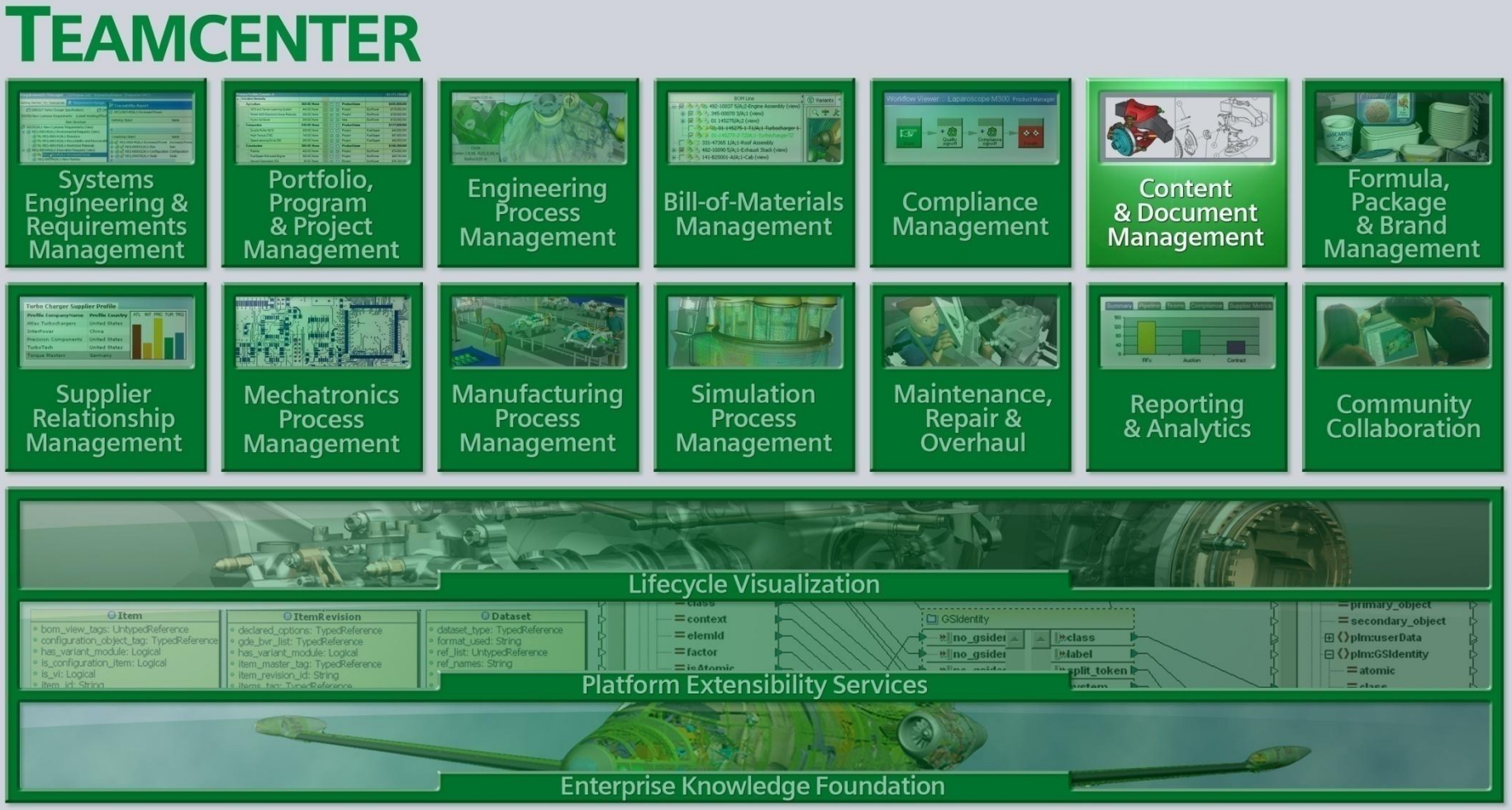
Content & Document Management



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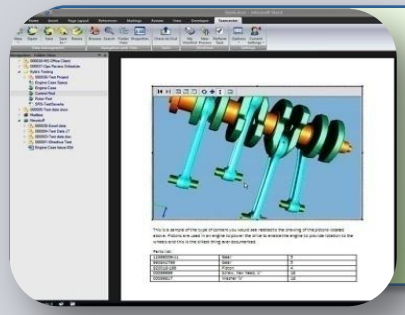
Teamcenter 8
Content and Document Management

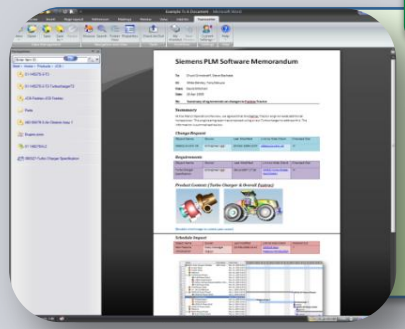
SIEMENS



Document Management

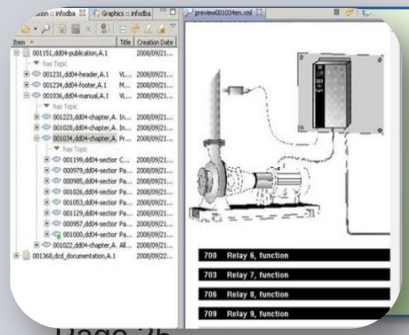
- Managed Document templates for standard document creation and formatting

Automated and Optimized Document & Content Management



Microsoft Office 2007 Integration

- Teamcenter user interface available in Office applications
- Data managed in Teamcenter can be inserted in office formats



Content Management

- Generate SGML/XML –based Technical publications
- Supporting S1000D Specifications

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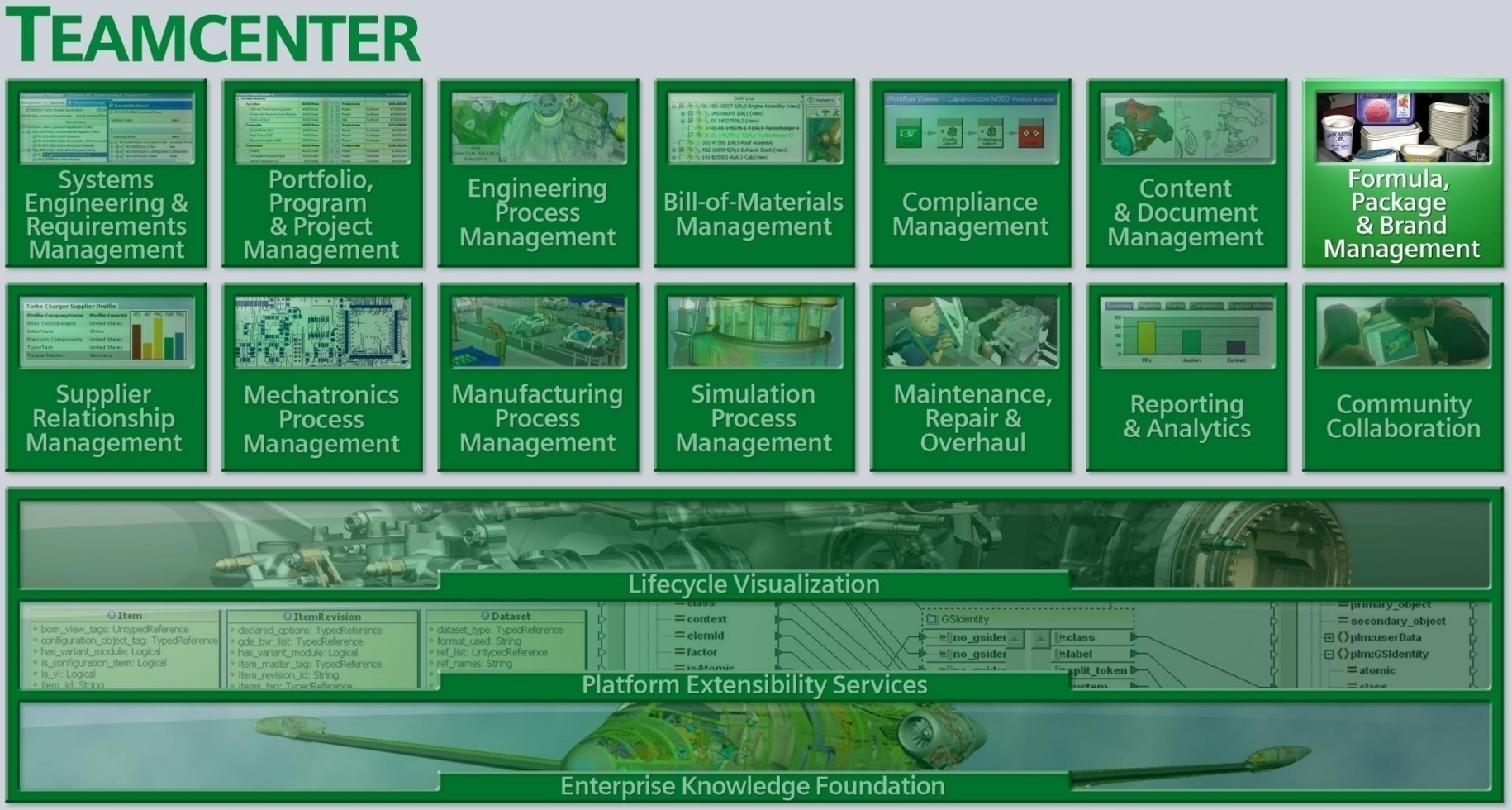
Formula, Package & Brand Management



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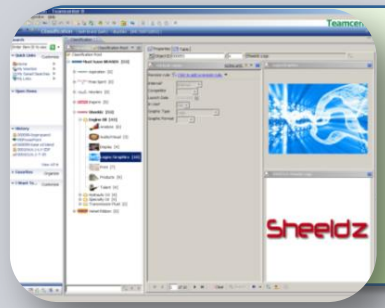
Teamcenter 8
Formula, Package and Brand Management

SIEMENS



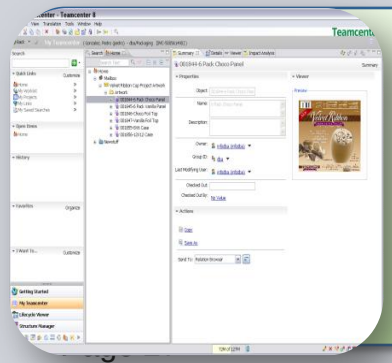
Brand Information

- Define a brand hierarchy
- Create and reuse brand assets
- Associate trade items (GTINs) with finished products

Link discrete and formulated product development with packaging, artwork & brand management

Specifications

- Define specifications in many forms; structured data, configured data, documents, reports, items and properties including formula/recipe information



Packaging and Artwork

- Capture marketing requirements (coarse or fine grain)
- Manage all package and artwork components in a single source/unified environment

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IT Productivity
with Teamcenter 8

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Proven, scalable, open PLM platform

Platform Extensibility Services

IBM DB2, WebSphere, and Tivoli support

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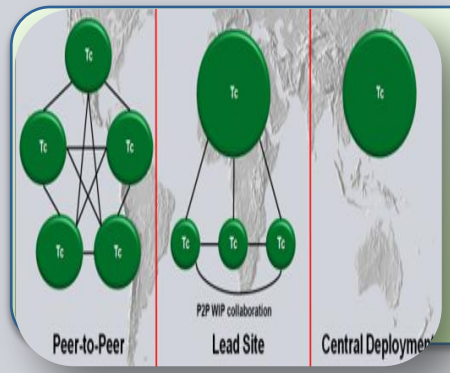
Teamcenter 8
Platform Investments

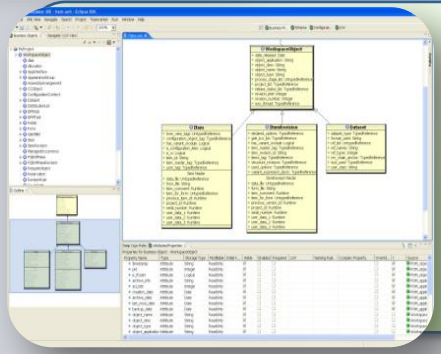
SIEMENS

Platform Improvements



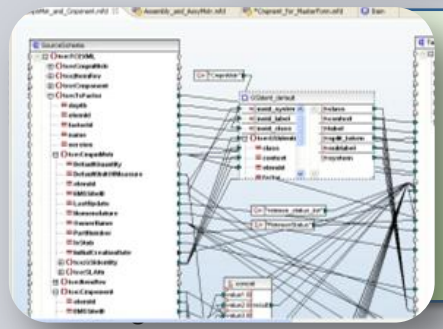
- "Store and Forward" file storage supports "LAN" speeds for save, central administration
- Client support for up to 250-300ms latency enabling global deployments

End to End Extensibility



- Extend server by creating new SOA Services (WSDL and multi-language bindings)
- BMIDE supports customer specific extension points
- Client extensibility leveraging Eclipse plug-in architecture

PLM Data Model Coverage



- Core data model extended to support more Industry Solutions (MRO, A&D)
- Mapping Engine 50X performance gain
- Upgrade for graphic Mapper Designer

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IT Productivity
with Teamcenter 8 Platform Extensibility Services

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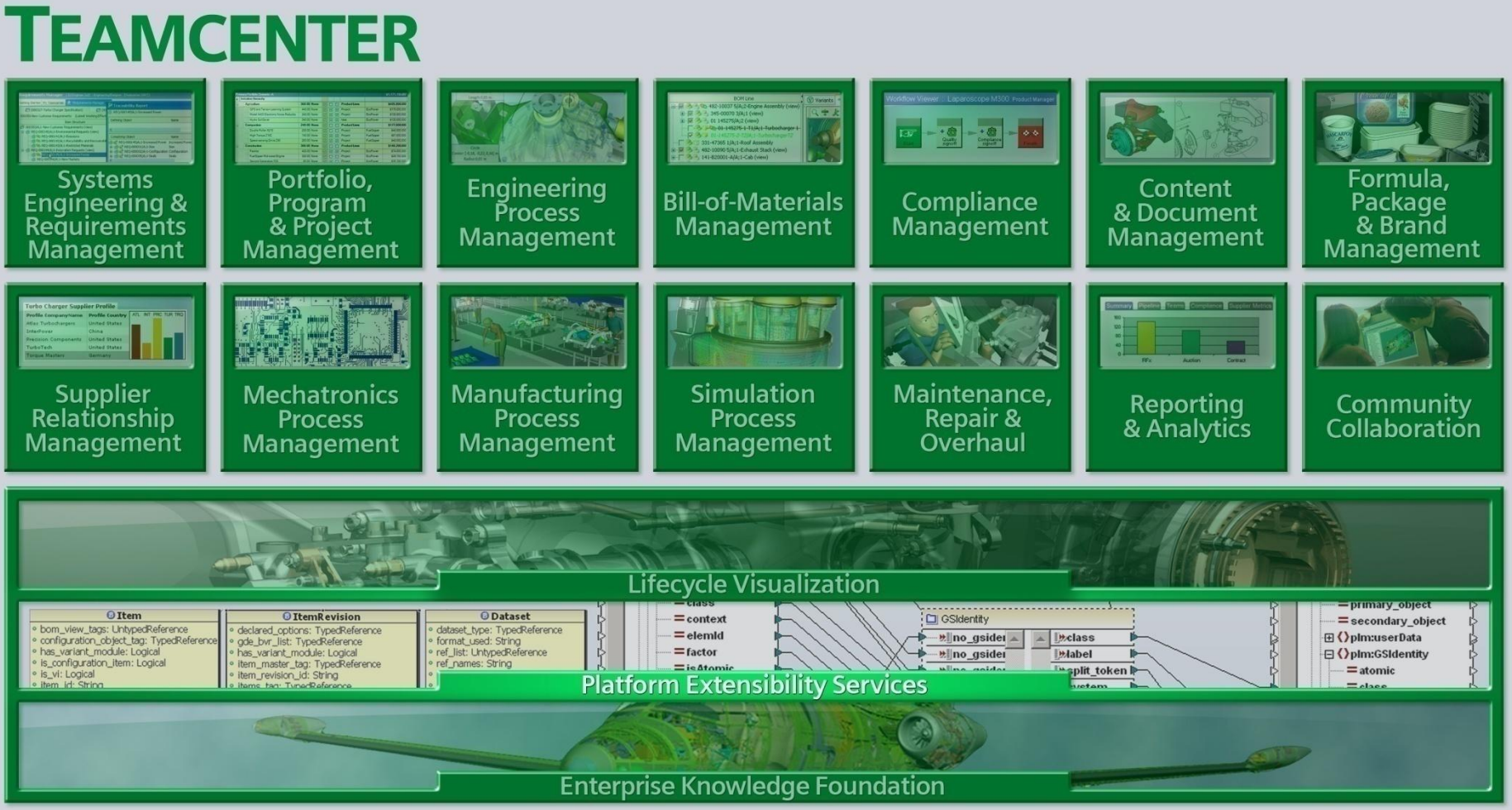

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IT Productivity
with Teamcenter 8

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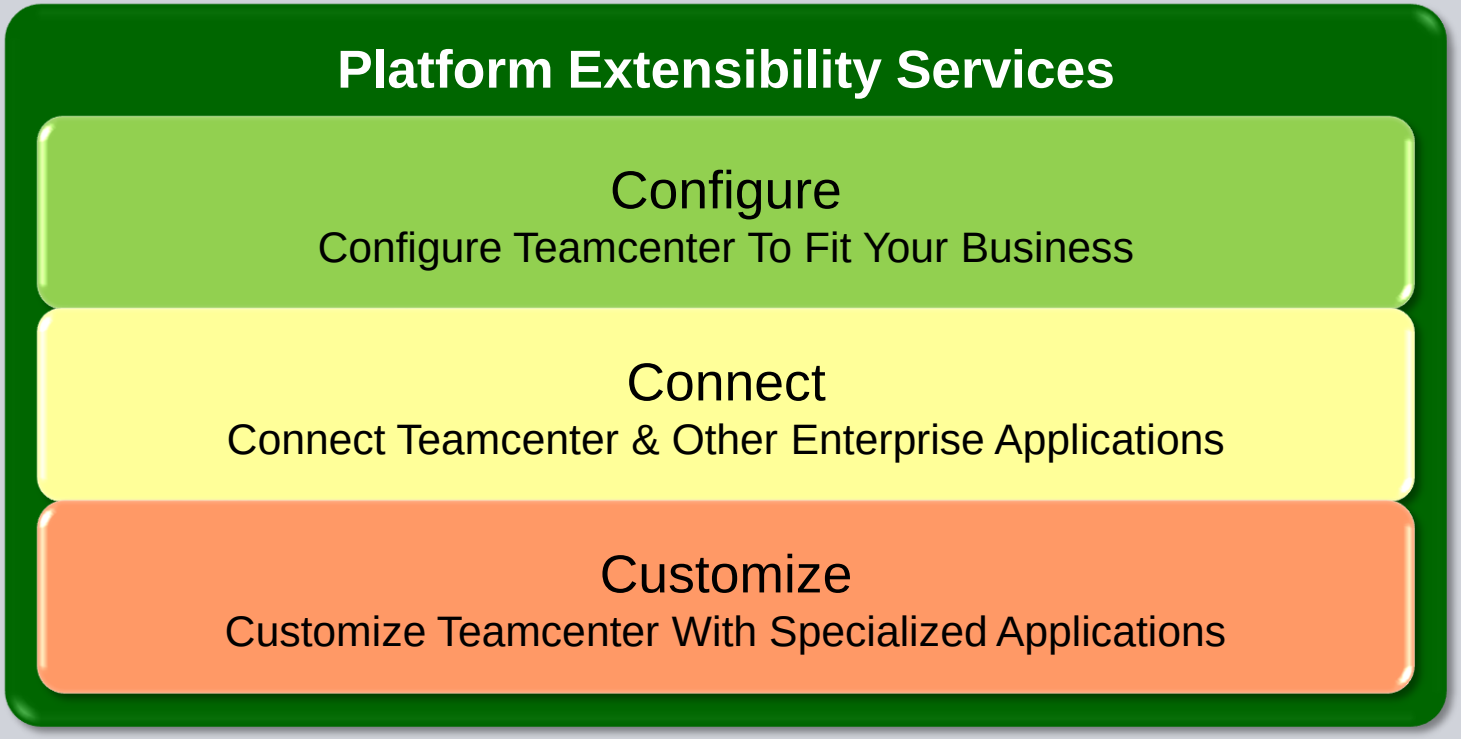

Services that enable you to realize value from your Teamcenter investment quickly and cost effectively

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Configure Teamcenter To Fit Your Business

Reduce or eliminate custom software

SIEMENS

Teamcenter Business Modeler IDE (BMIDE) …

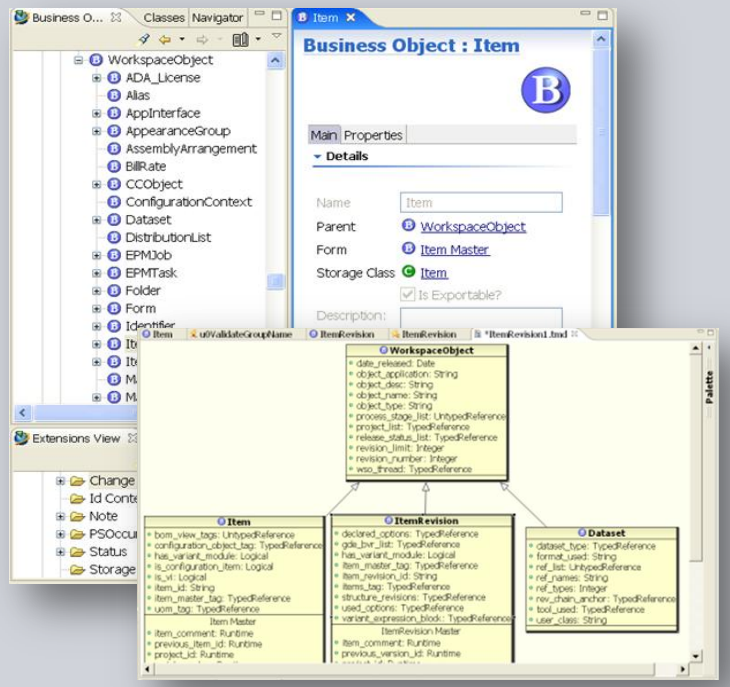
Empowers PLM process owners

- Business process oriented UI
- Wizard-based guidance & best practices
- No software development skills needed

Extensive configurability

- Specify displayed attributes & names
- Define new business objects
- Modify behavior of built-in objects
- Define business rules

Insure upgradeability and maintainability



Extend Teamcenter using the same services we use to build it

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Configure Teamcenter To Fit Your Business

Simplify deployment and maintenance

SIEMENS

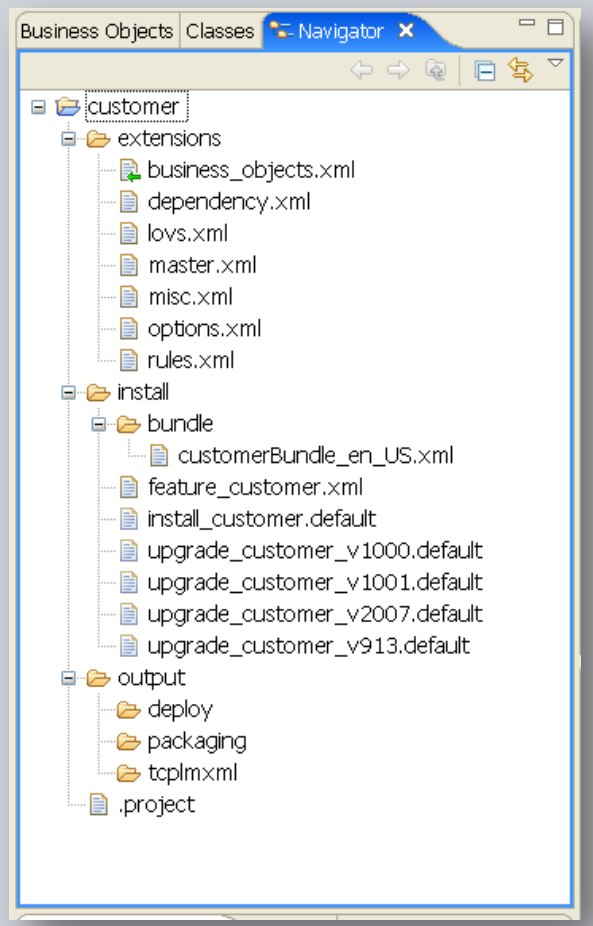
BMIDE …

Empowers IT

- IT friendly application to deploy and maintain configurations
- Eliminate need for custom software
- Easily deploy to multiple systems
- Manage upgrade deployment
- Hot deployment for testing

IT friendly templates

- Packages all configuration components
- Enforce dependency rules



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Configure Teamcenter To Fit Your Business

Simplify deployment and maintenance

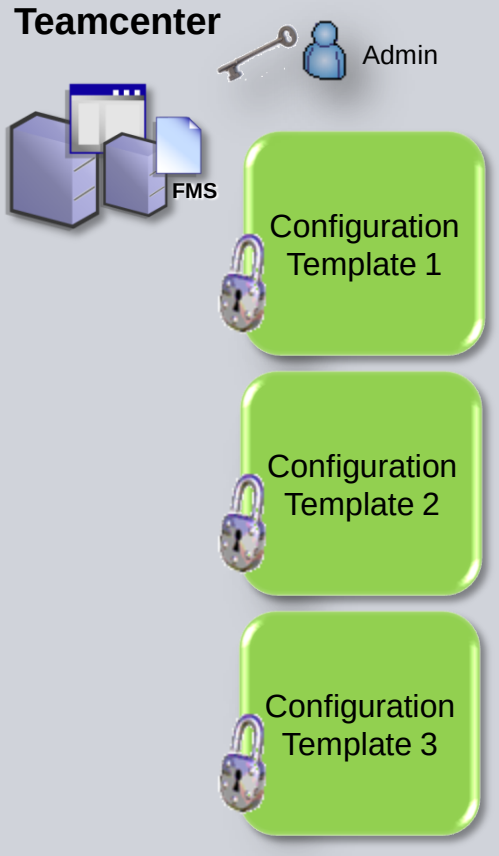
SIEMENS

Without BMIDE

- Multiple custom software and scripts making direct changes to the database
- Multiple disparate files
- Manually enforce dependency rules
- Redeploy all configuration on upgrade

With BMIDE

- No custom scripts and applications
- One deployment application
- One configuration template
- Automatically enforce dependency rules
- Automatically determine and deploy only differences on upgrade



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Configure Teamcenter To Fit Your Business

Simplify deployment and maintenance

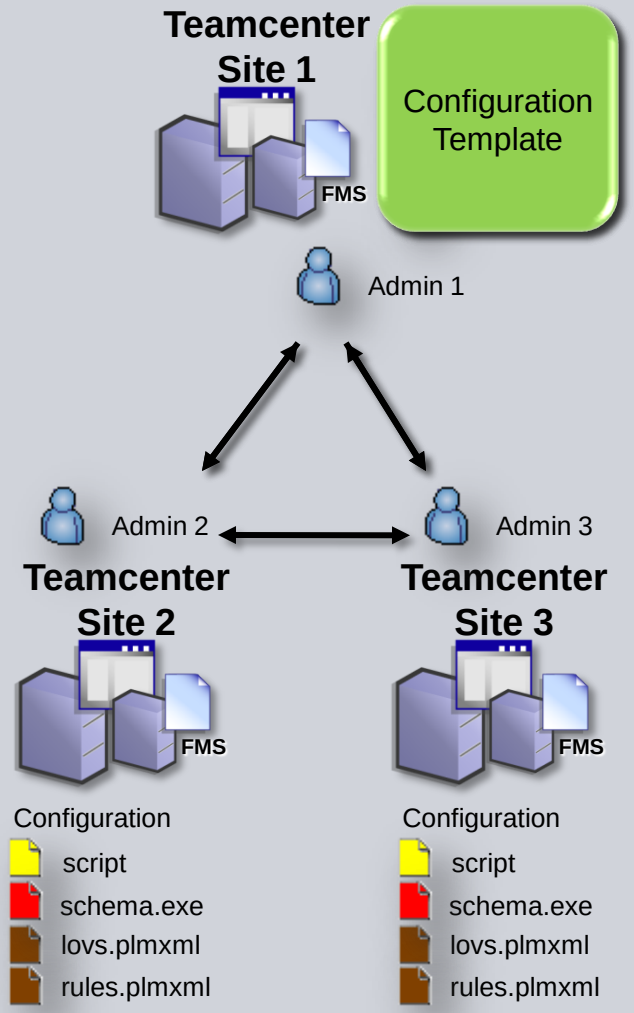
SIEMENS

Without BMIDE

- Coordination among all site administrators to manually replicate & apply configuration
  - Error prone, time consuming, tedious
  - Hard to ensure and verify that each site has the correct configuration

With BMIDE

- Central administrator can synchronously deploy configuration to multiple sites
  - Minimize errors
  - Automatic error checking
  - Easily ensure and verify that all sites are in-sync



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Connect Teamcenter & Other Enterprise Applications

Leverage existing and future investments

SIEMENS

Teamcenter Global Services …

Quickly assemble custom connectors

- Configurable connector building blocks
- Built on industry standards
- Optimized for Teamcenter connection

Insure upgradeability and maintainability

Extend Teamcenter using the same services we use to build it

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Customize Teamcenter With Specialized Applications

Comprehensive access

SIEMENS

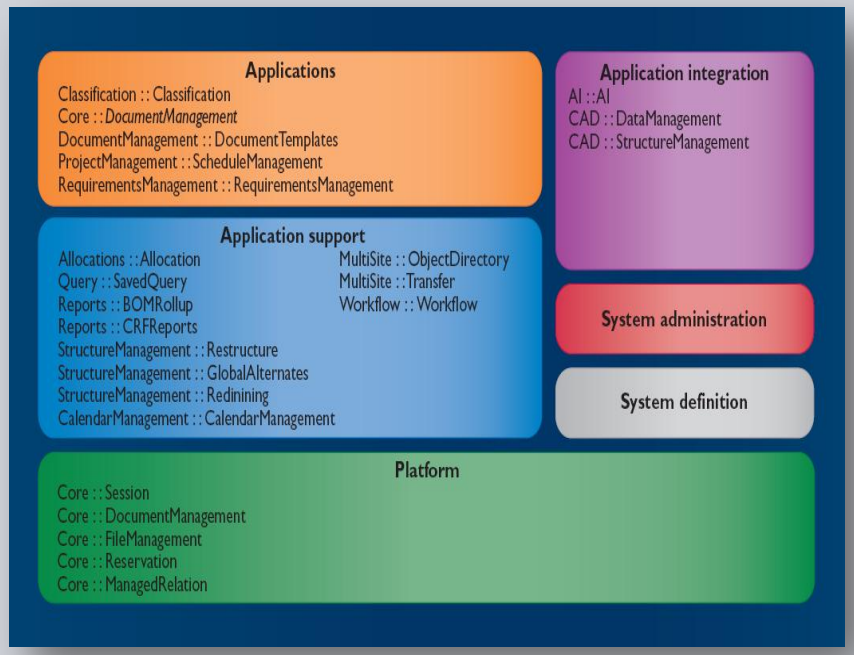
Teamcenter SOA Services …

Streamline access to Teamcenter data and capabilities

- Hundreds of SOA services on all key functional areas and growing
- Detailed documentation, examples and best practices

Client Technology Independent

- Web Services Client
- Native Application Client



Extend Teamcenter using the same services we use to build it

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Customize Teamcenter With Specialized Applications

Maintainable and upgradable extensions

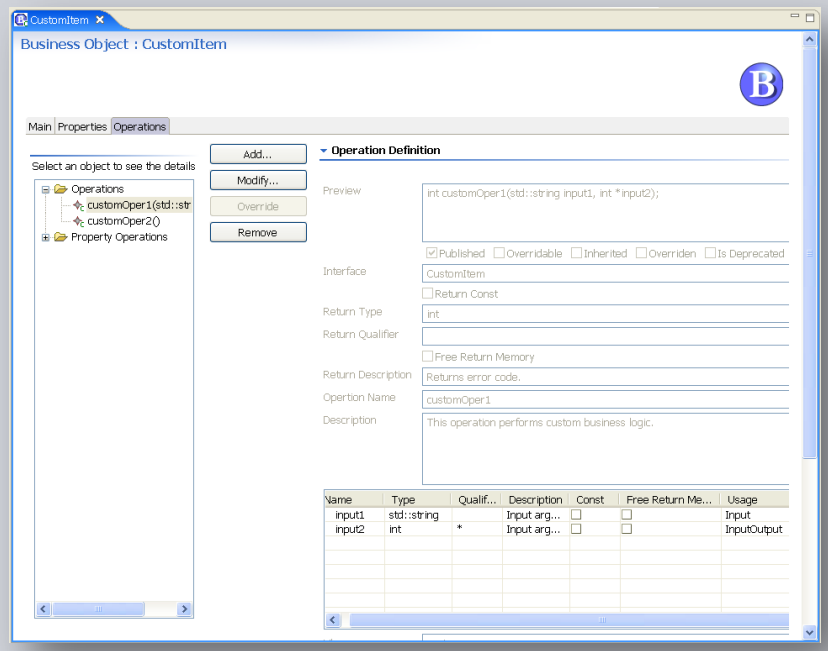
SIEMENS

Teamcenter BMIDE …

Extend data model and create new SOA services automatically

- Easy-to-use Integrated Development Environment
- Wizards providing guidance and best practices
- Automatically generates all required software framework

Insure maintainability and upgradeability



Extend Teamcenter using the same services we use to build it

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Customize Teamcenter With Specialized Applications

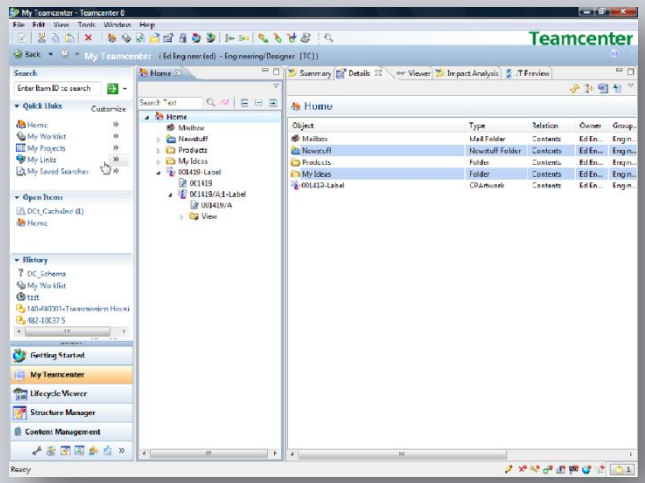
Fast and reliable

SIEMENS

Eclipse Rich Client Platform (RCP) …

Create Teamcenter plug-ins and complementary applications

- Industry standard open source platform for creating extensible rich applications
- Supports Linux, Windows, Mac OS X, UNIX and embedded platforms
- Comprehensive documentation, examples and best practices
- Large support community www.eclipse.org



Extend Teamcenter using the same services we use to build it

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IT Productivity
with Teamcenter 8 on the IBM Blue Stack

SIEMENS

IBM. WebSphere. software

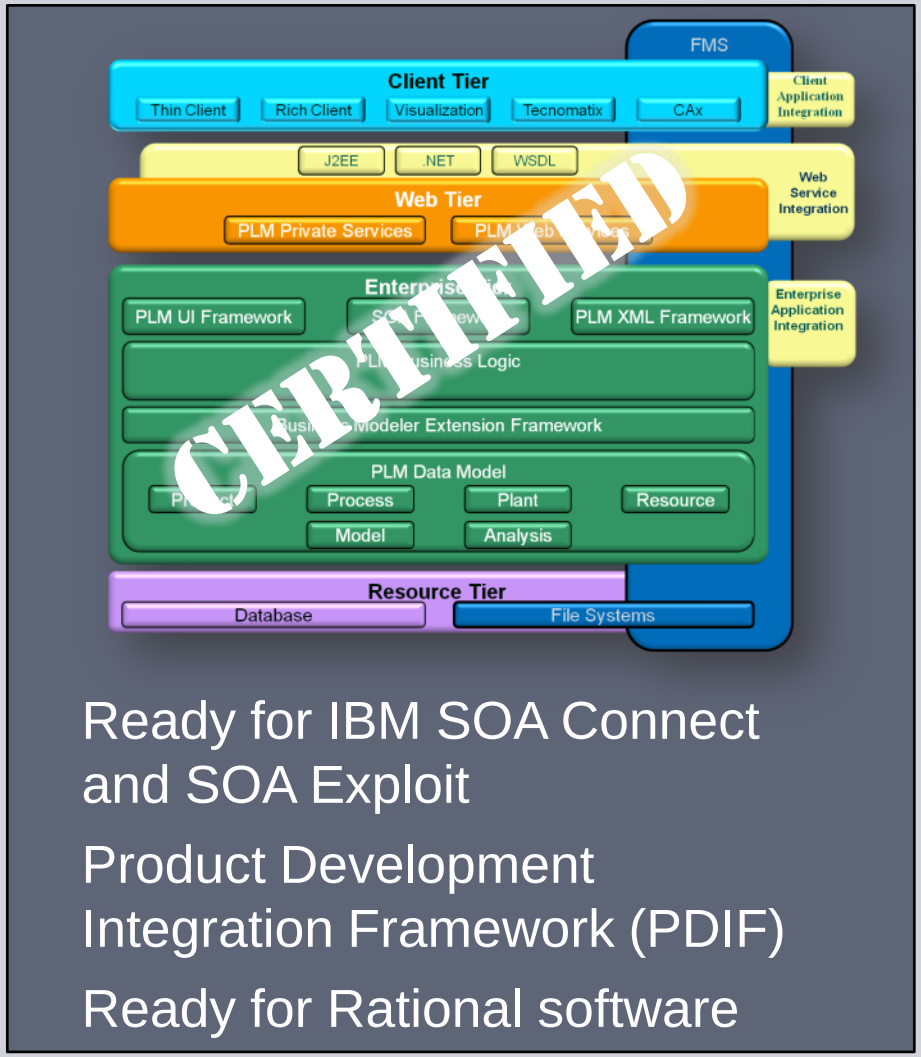
- Proven, open standards based platform for integration
- Reliable, highly available, secure and scalable environment
- Seamless integration with DB2

IBM. Information Management software

- Self-tuning memory management
- Automatic storage management
- Simple & autonomic administration
- High availability

IBM. Tivoli. software

- Secure offline data storage strategy
- Optimize storage & delivery of data
- High application availability and reduced downtime



Ready for IBM SOA Connect and SOA Exploit

Product Development Integration Framework (PDIF)

Ready for Rational software

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Innovation and Productivity
Finding balance in a complex world

SIEMENS

SPEED
Rapidly go from idea to truck in multiple markets

GLOBALIZATION
Global markets
Global partners
Global resources

OPTIMIZATION
Optimization of processes, resources, cost and quality

SUSTAINABILITY
Deliver environmentally friendly products

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Teamcenter 8 powers productivity:

Individual Productivity

Application Productivity

IT Productivity

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