Will you be ready with the right products when the economy recovers?
Innovation and Productivity
Global Trends

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.”

Performance 2009
Productivity, Employment, and Growth in the World’s Economies

Productivity Brief
January, 22, 2009
Innovation and Productivity
Top Product Development Strategies

Best-in-Class Companies Lead The Way

Align to Customer Needs
- Best in class: 93%
- Average: 80%
- Laggard: 79%

Collaborate Across Departments
- Best in class: 92%
- Average: 29%
- Laggard: 27%

Track and Manage Projects
- Best in class: 87%
- Average: 43%
- Laggard: 36%

React Quickly to Product Issues
- Best in class: 87%
- Average: 42%
- Laggard: 39%

Streamline Product Development
- Best in class: 86%
- Average: 39%
- Laggard: 23%

Develop Earlier or Concurrently
- Best in class: 80%
- Average: 41%
- Laggard: 39%

Source: AberdeenGroup. Top Five Principals for Product Development Success, February 2009
Teamcenter
The world’s most widely used PLM system

SIEMENS

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
Teamcenter 8 powers productivity:
Individual Productivity
Application Productivity
IT Productivity
Individual Productivity with Teamcenter 8

Find information fast in the context you need

Teamcenter inside your tools and processes

Instant collaboration for improved teamwork

Individual Productivity  
with *Microsoft Outlook Integration*

- 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
Individual Productivity
with Live Microsoft Office Integrations to Teamcenter

- 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
Individual Productivity
with Teamcenter 8 inside your ECAD tools and processes

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
Individual Productivity
with Teamcenter 8 inside your Software tools and processes

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
Teamcenter 8 Integration for NX

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

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

Single Source of All Product Data from Design to Manufacturing

4-Tier Client Performance
- Global design teams with real-time access to centrally managed data at latencies up to 250ms
Teamcenter 8
Integration 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

Whole Product Lifecycle Management for CATIA

V5 Relational Design and Global deployment
- Collaboration, Configuration, Change, Visualization, Manufacturing, Multi-Tier Deployment and Supply Chain Integration
Teamcenter 8
Integration for Pro/E

- Leveraging Teamcenter access and change control for workgroup collaboration with a single source of product data
- JT translation and import to enable Design in Context for MultiCAD assemblies
- Visualize and load simplified large assembly structures
- Support High latency, low bandwidth networks – to support globally distributed design centers linked to a common database
Individual Productivity
Instant collaboration with Teamcenter 8

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

Supplier w/JT2GO or Lifecycle Visualization

ULP in VFZ File

“Send to” Supplier via email wizard
Individual Productivity

JT Ultra-Lightweight-Precise (ULP) Component

Outstanding Visual Precision (~99.9% Accurate)

Ultra Lightweight Precise
~1.3% of CAD

Example:
2,604 KB

Example:
320 KB

Example:
32.7 KB

XT B-rep: 47%
PMI: 2%
High LOD: 36%
Med LOD: 12%
Low LOD: 3%

ULP

Enterprise JT
12% of CAD
Application Productivity with Teamcenter 8

End-to-end PLM solutions for Industry

Turn on application solutions when ready

Content and Document Management

Formula, Package, and Brand Management
Application Productivity with Teamcenter 8

TEAMCENTER

Systems Engineering & Requirements Management
Portfolio, Program & Project Management
Engineering Process Management
Bill-of-Materials Management
Compliance Management
Content & Document Management
Formula, Package & Brand Management
Supplier Relationship Management
Mechatronics Process Management
Manufacturing Process Management
Simulation Process Management
Maintenance, Repair & Overhaul
Reporting & Analytics
Community Collaboration

Lifecyle Visualization
Platform Extensibility Services
Enterprise Knowledge Foundation

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

- Guarantee data is created and managed in the appropriate program and organizational (cage code) context
- Configure each program to operate in either a part centric or document centric mode
- Define item naming & revisioning conventions (patterns/numbering)
- Define standard parts
- On a program basis, restrict usage of standard parts to only those that are preferred/approved
Teamcenter 8
Consumer Packaged Goods

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

**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

Link discrete and formulated product development with packaging, artwork & brand management
Teamcenter 8
Softlines, Footwear & Accessories

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

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

On-trend, on-time product development

Asset Management
- Develop fabrics in parallel with styles
- Manage lab dip process with mills
- Classify and manage trim libraries
- Support new trim requests
Teamcenter 8
Medical Devices

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

**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

**Design, manufacture, and market safer and more reliable products**
Teamcenter 8
High-Tech and Electronics

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
Teamcenter 8
Content and Document Management

**Document Management**
- Managed Document templates for standard document creation and formatting

**Automated and Optimized Document & Content Management**

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

**Microsoft Office 2007 Integration**
- Teamcenter user interface available in Office applications
- Data managed in Teamcenter can be inserted in office formats
Formula, Package & Brand Management

TEAMCENTER

Systems Engineering & Requirements Management
Portfolio, Program & Project Management
Engineering Process Management
Bill-of-Materials Management
Compliance Management
Content & Document Management
Formula, Package & Brand Management
Supplier Relationship Management
Mechatronics Process Management
Manufacturing Process Management
Simulation Process Management
Maintenance, Repair & Overhaul
Reporting & Analytics
Community Collaboration

Lifecycle Visualization
Platform Extensibility Services
Enterprise Knowledge Foundation

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Teamcenter 8
Formula, Package and Brand Management

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

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

Link discrete and formulated product development with packaging, artwork & brand management.
IT Productivity
with Teamcenter 8

Proven, scalable, open PLM platform

Platform Extensibility Services

IBM DB2, WebSphere, and Tivoli support
Teamcenter 8
Platform Investments

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
IT Productivity with Teamcenter 8 Platform Extensibility Services
Platform Extensibility Services

Configure
Configure Teamcenter To Fit Your Business

Connect
Connect Teamcenter & Other Enterprise Applications

Customize
Customize Teamcenter With Specialized Applications

Services that enable you to realize value from your Teamcenter investment quickly and cost effectively
Configure Teamcenter To Fit Your Business
Reduce or eliminate custom software

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
Configure Teamcenter To Fit Your Business
Simplify deployment and maintenance

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
Configure Teamcenter To Fit Your Business
Simplify deployment and maintenance

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
Configure Teamcenter To Fit Your Business
Simplify deployment and maintenance

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
Connect Teamcenter & Other Enterprise Applications
Leverage existing and future investments

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
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
Customize Teamcenter With Specialized Applications
Maintainable and upgradable extensions

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
Customize Teamcenter With Specialized Applications
Fast and reliable

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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Siemens PLM Software
IT Productivity
with Teamcenter 8 on the IBM Blue Stack

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

IBM. **WebSphere.** software
- Self-tuning memory management
- Automatic storage management
- Simple & autonomic administration
- High availability

IBM. **Information Management** software
- Secure offline data storage strategy
- Optimize storage & delivery of data
- High application availability and reduced downtime

IBM. **Tivoli.** software

Ready for IBM SOA Connect and SOA Exploit
Product Development Integration Framework (PDIF)
Ready for Rational software
Innovation and Productivity
Finding balance in a complex world

**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
Teamcenter 8 powers productivity:

- Individual Productivity
- Application Productivity
- IT Productivity
Teamcenter 8