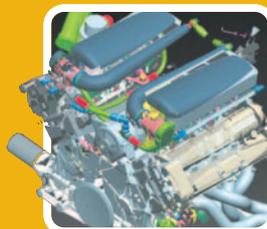


# Windchill PDMLink™

CONTROL the Data that Drives Product Success

THE PRODUCT DEVELOPMENT COMPANY™



# Windchill PDMLink

A proven solution for gaining control over product information and processes during every step of the product lifecycle.

**Discrete manufacturers know how complex product development has become.** Competition is driving the need to deliver superior products to market faster. Pressures for more productivity from engineering. More innovation. Better product quality. More design reuse. And, of course, lower product costs.

The path to success is littered with obstacles – the explosion of disconnected digital product information (from product specifications to CAD models to manufacturing process plans), uncoordinated global design teams, out-of-control design processes, mixed CAD environments, and difficulty sharing design data with non-engineers. The need to gain control over your data and design processes has never been greater.

- › [How can your company consolidate islands of information?](#)
- › [How can you prevent costly errors by controlling your chaotic product change processes?](#)
- › [How can you facilitate rapid development of new product configurations through reuse?](#)
- › [How can you automate and reduce errors when sharing product data with downstream manufacturing systems?](#)

These are just some of the challenges Windchill PDMLink will help you solve.

# It's About Control.

Get more value –

**FASTER** –

with PTC's powerful  
product data  
management  
solution.



Given the increasing complexity of products, greater amounts of digital product information, and the distributed nature of global teams, manufacturers must make improvements not only in the product development process but also in the way product information is handled throughout the enterprise. The challenge has been to find a way to effectively control this information while still providing access to it across the enterprise.

With a single source of product data, global manufacturers can reduce time-to-market and costs with increased design reuse and information sharing, improved change processes, and greater enterprise agility. Product data management (PDM) is the foundational technology for achieving these kinds of improvements. And that's what Windchill PDMLink is all about.

Windchill PDMLink makes it easy for individuals anywhere in your organization to access and visualize up-to-the-minute, accurate product information from a variety of sources. Certified by the Institute of Configuration Management, Windchill PDMLink consolidates scattered information, brings order to chaotic change processes, and speeds the development of new product configurations. With its unparalleled visualization capabilities, Windchill PDMLink also helps ensure that complex product information can be easily reviewed. It's Web-based, easy to implement, and intuitive to use.

As part of PTC's integral Product Development System (PDS), Windchill PDMLink provides the proven solution manufacturers need to control product data during every step of the product lifecycle.

- › Simple, easy-to-use interface and lightweight 3D viewables
- › Powerful capabilities to control product information and product structures with secure access control, and automate key processes through workflow
- › Connected with Pro/ENGINEER® Wildfire™, Windchill ProjectLink™, and a range of CAD and ERP systems
- › Optimize critical processes such as Digital Product Data Management, Change Management, Configuration Management, and Release to Manufacturing
- › Accelerate adoption and speed-to-value through services offered by PTC and our partners



# Managing Complex Product Data Just Got a lot Simpler

Simple. Powerful. Connected.™

## Simple

Simple, easy-to-use interface and rich 3D visualization of complex product information.

### Web-based

Deliver information relevant to specific roles, responsibilities, and tasks – organized in a logical, product-centric manner.

- Easy access to product information – directly from a Web browser
- Personalized subscription and notification capabilities keep development teams attuned to the latest changes

### Embedded Visualization

Enable users to easily identify, view, and use product information, without requiring underlying authoring applications.

- Locate and verify content faster and easier with 2D or 3D thumbnails
- Option to automate document publishing to PDF format
- Provide feedback easily by marking up CAD models and documents

## Powerful

Consolidate and control information through change, configuration, and other product development processes.

### Product Information Control and Secure Access

Deliver a single secure source of product data with vaulting, check-in /out, history, search, and access control. Control product evolution with lifecycle management.

### Change Management

Automate the change process through online capabilities to create, review, and analyze the impact of changes. Visibility to change process statistics allows companies to track, monitor, and measure change-related activities and performance.

### Configuration Management

Create, manage, and deliver all required views of product information and effectivity, including organization-specific bills of material and configurable part numbering and versioning.

### Product Templates

Speed the organization of product-related data, drive corporate standards, and simplify administration across product portfolios.

### Business Process Automation

Create and extend pre-defined workflows and eliminate bottlenecks by monitoring running processes and managing activities.

## Connected

Link seamlessly to multiple mechanical and electrical CAD applications, desktop applications, and other enterprise systems.

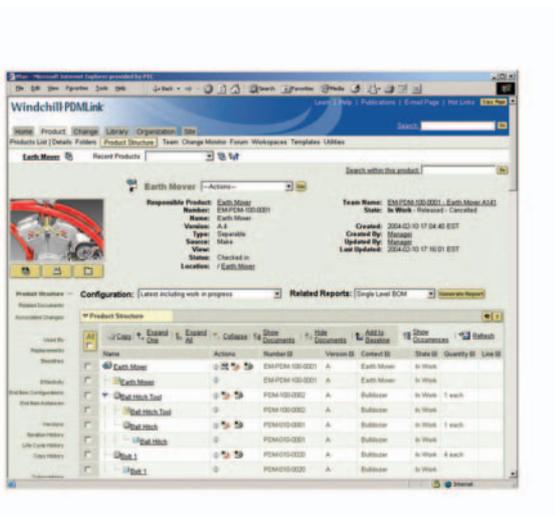
### Part of PTC's Integral PDS

Seamless user experience with Pro/ENGINEER® Wildfire™ and Windchill ProjectLink.™

### Integrated with Other Applications

Designed to work with other everyday tools and enterprise systems.

- Range of MCAD tools including support for Pro/ENGINEER, CADDs®, AutoCAD®, CATIA® V4, CATIA® V5, Unigraphics®, I-DEAS®, Inventor®, and SolidWorks®
- Major ECAD packages from Mentor® and Cadence®
- Drop-down menus within Microsoft® Office applications
- Turnkey interoperability with other enterprise applications such as ERP, CRM, and SCM with optional Windchill Enterprise Systems Integration module



Easy-to-use Web-based interface with interactive visualization woven throughout to quickly see and access all part information, including the product structure, pending changes, effectivity, and version history.

### Digital Product Data Management

#### Collecting and Controlling All Forms of Digital Product Data.

A tremendous amount of information is generated during the lifespan of a product. This information is critical to everyone in an organization, even those outside of engineering. Product information is typically housed in disparate locations and controlled by its authors or a department. Windchill PDMLink gathers and administers all data relevant to a product across its entire lifecycle in a single system of record. Pervasive visualization enables team members to readily understand and interpret product information. Making information easier to find encourages greater reuse and facilitates improved processes such as change and configuration management.

These processes are powered by extensive workflow creation, execution, and monitoring capabilities. Any manual, non-value-added activity can be automated to reduce cycle times, enforce enterprise standards, and eliminate wait states. Windchill PDMLink removes the barriers that impede productivity and creativity, allowing people to focus less on managing information and more time using it.

- Establish a single source of all product data – product specifications, technical publications, marketing plans, heterogeneous mechanical and electrical CAD models, simulation results, production plans, viewables, and more
- Capture and manage product data through tight interfaces to major MCAD and ECAD authoring tools, team data managers, Microsoft Office, and the Windows® desktop.
- Structure large assemblies to support team-based development by using check-in/check-out techniques to manage concurrent development
- Maintain version history to enable configuration planning
- Protect product data with access controls at various levels

#### Realizable Benefits

- Reduce process errors by 50%<sup>1</sup>
- Improve part reuse by 20%<sup>2</sup>
- Reduce time spent searching by 40%<sup>2</sup>
- Reduce engineering rework by 15%<sup>2</sup>

#### Processes Improved

- Top-down and bottom-up product planning
- Search and reuse
- Design reviews
- Manage product documentation and component lifecycles
- Manage component lifecycles

### Change Management

#### Automating Engineering Change Processes.

Poorly planned or last-minute changes doom many product launches. Windchill PDMLink provides tools that manage changes to product information efficiently, such as the Institute for Configuration Management best practice for change management that supports both full-track and fast-track changes. Ready to use, yet configurable to your unique needs.

Windchill PDMLink's change management tools include problem reports, change requests, change notices, and the ability to attach or link product information to change items and the change process. Powered by Windchill® workflow, these tools enable a closed-loop change management process that:

- Captures product improvement opportunities
- Controls and routes changes to appropriate parties
- Provides access to data necessary to analyze and evaluate changes
- Automatically documents revision and iteration history
- Notifies affected parties of impending changes
- Provides visibility to "where-used" information to understand the full impact of a change
- Integrates change processing with other enterprise systems
- Provides an online dashboard to report trends in volume, severity, and cycle time of changes

#### Realizable Benefits

- Reduce change processing time by 85%<sup>1</sup>

#### Processes Improved

- Fast-track change
- Full-track change
- Change impact analysis
- Change monitoring and process efficiency

<sup>1</sup> Giga

<sup>2</sup> CIMdata

<sup>3</sup> "Accelerating Product Development" by Gary S. Vasilash, published in Automotive Design & Production, Cincinnati: May 2002, Vol 114

## Configuration Management

### Planning and Controlling Product Versions and Views.

Products evolve over time for many reasons. Customer demands. Operational feedback. Internally generated improvements. Additional capabilities for new markets. Lifecycle changes. And more. Even within a seemingly stable product line, product iterations incorporate engineering changes, have slightly different structures, use different components or suppliers, and involve different versions of digital product information. Having a systematic approach for managing configurations is critical. With its CMII-certified capabilities, Windchill PDMLink enables manufacturers to:

- Establish rules to identify each component with a unique part number, revision level, and maturity status
- Create and manage multiple product structure views
- Establish rules for interchangeability, creating new part numbers for significant changes, while maintaining existing numbers for minor changes
- Establish rules to effectively plan the introduction of changes at a given date or unit number
- Create serialized products/parts for developing customized configurations
- Enable employees to reuse configurations to create new products, such as “where-used” and “BOM comparison” reports
- Shorten the order-to-ship cycle by modeling product feature variability and designating substitute/alternate parts

### Realizable Benefits

- Reduce development cycles by 30-50%<sup>3</sup>
- Reduce scrap and rework by 15%<sup>2</sup>

### Processes Improved

- Manage product configurations
- Manage product documentation
- Create and manage serialized parts
- Change effectivity management
- Planning for production in multiple locations

**48% of new products are modifications of existing designs – which means new products can be accelerated by reusing previous product configurations.**

Gartner

## Release to Manufacturing

### Automatically Exchange Product Information with Downstream Manufacturing Systems.

A digital product is ready for release to manufacturing when product concepts have matured into a complete product definition and organizational alignment has been achieved. As product configurations are approved for release, Windchill PDMLink uses an optional module, Windchill Enterprise Systems Integration (ESI) to feed product and BOM information to production systems automatically.

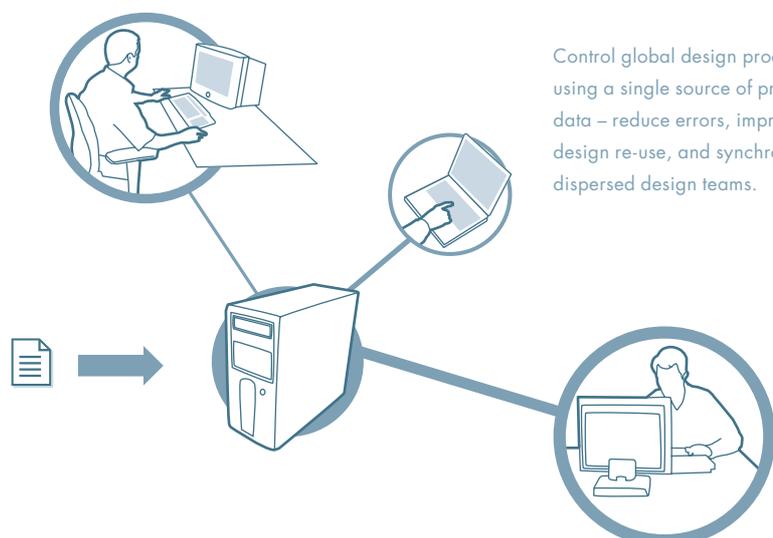
Windchill ESI is an end-to-end integration solution that enables Windchill PDMLink to exchange information with other enterprise systems. It provides business logic that controls what, how, and when information is published from Windchill PDMLink to the target systems. Windchill ESI makes it possible to leverage product information across different functional groups, keeping everyone connected to the latest information. The Windchill ESI architecture is built with reusable components, including TIBCO® EAI technology, to enable flexibility and scalability. This turnkey solution supports a wide variety of business scenarios through both default settings and configurable parameters.

### Realizable Benefits

- Reduce time and improve accuracy of exchanging product information between engineering and manufacturing by 40%<sup>1</sup>

### Processes Improved

- Automating the input and transfer of data
- Using manufacturing system information for design decisions
- Releasing design for prototype planning, manufacture, and pre-production planning
- Planning for production in multiple locations



## Realize The Full Potential of Windchill PDMLink Through Services Delivered by PTC and Our Partners

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### Assess, Deploy, Optimize

To accelerate your return on investment, PTC applies an incremental implementation approach, which includes a comprehensive portfolio of Assess, Deploy, and Optimize offerings. Whether you're refining a process to eliminate design bottlenecks, or working to engage customers and suppliers, this approach provides real benefits that can help fuel growth and drive profitability.

Through our **Assess** offerings, PTC consultants and partners can identify data control opportunities and demonstrate exactly how to realize maximum value through Windchill PDMLink. With **Deploy**, we help you implement the solution quickly and accelerate the return on your investment. Quick Start packages and pre-configured workflows around key product development processes, such as Design Reviews and CMII Change Management, ensure the most cost-effective and efficient adoption of the solution. And with **Optimize**, we work together to extend the value of Windchill PDMLink by streamlining your product development processes in ways that maximize personal and organizational productivity. PTC offers programs around Digital Product Definition, Process Design, and Modular Product Architecture.

With nearly 20 years of product development experience – and thousands of successful deployments – PTC enables rapid implementations through both packaged and managed services that deliver immediate and lasting business value for companies of all sizes.



### PTC offers a comprehensive Maintenance Support Plan that delivers additional productivity benefits:

- Ongoing investment protection and enhancement of PTC solutions.
- New software releases which may include feature, architecture, performance, and infrastructure enhancements.
- Direct access to PTC's ISO 9001-accredited technical support organization.
- Award-winning, online, self-service support tools with access to more than 18,000 online documents, updated weekly with the most current technical information.



# PTC's Product Development System

**Complete  
Product Development  
System**

## Leading Technology that Assures Success

PTC's Product Development System has the footprint of capabilities discrete manufacturers need to **Create** digital master models, **Collaborate** across the entire Digital Product Value Chain, and **Control** product information and product development processes efficiently over the entire product lifecycle. The pure **Internet** architecture of our PDS enables worldwide access. Its **Integral** design delivers a seamless user experience. Plus, PTC's PDS is **Interoperable** with other enterprise technologies.

PTC's integral Product Development System delivers the key capabilities manufacturers need – Create. Collaborate. Control.™ – to realize more value from product development. And our proven, incremental implementation approach can help companies of any size accelerate adoption, minimize risk, and speed time-to-value.

## Industry Expertise that Optimizes Product Development Processes

Our Product Development System helps companies manage, enhance, and optimize their end-to-end product development processes with confidence. With unprecedented five-level testing, every element of the PDS has been validated and proven to support the critical product development improvements customers want. What's more, PTC has the broad process expertise necessary to ensure the PDS supports your company's unique product development needs.



## Proven Deployment Approaches that Accelerate Adoption

PTC offers a wide range of standardized solutions for installation, configuration, migration, and optimization, including pre-packaged Quick Starts. PTC's proven methods encourage adoption of new processes to accelerate productivity gains. Our extensive role-based curriculum includes Web-based training, instructor-led programs, and interactive distance learning – all offered worldwide.

**Pro/ENGINEER® Wildfire™**  
Unparalleled technology to create winning products.

**Windchill ProjectLink™**  
Improving product development through collaboration.

**Windchill PDMLink™**  
Controlling the data that drives product success.

To learn how Windchill PDMLink can help your company control digital product data to create more value, please visit our website at:  
[www.PTC.com/go/pdmlink](http://www.PTC.com/go/pdmlink)



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