

Pro|ENGINEER® Flex3C

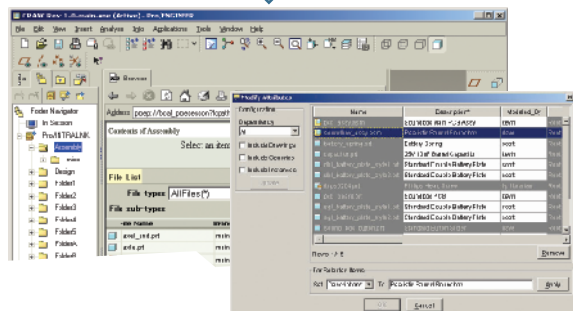
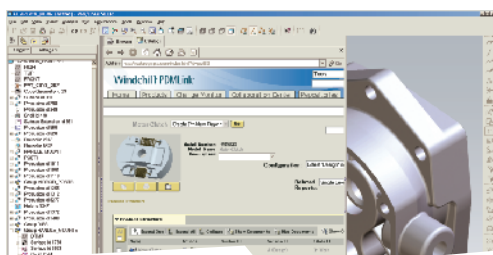
for PTC Customers using Pro/INTRALINK®

The ultimate product development system delivering unmatched power, performance, and value

The Pro/ENGINEER Flex3C package is a comprehensive product development solution for those companies who wish to leverage and extend their existing Pro/INTRALINK implementation by adding the enterprise product data management capabilities of Windchill® PDMLink™.

MCAD, product data management, and Web collaboration—all delivered in a single, integrated, quick-to-value package—only from PTC.

Layered Pro/INTRALINK + Windchill PDMLink Deployment



- Provides Pro/ENGINEER workgroup WIP data management
- Adds enterprise PDM capabilities
- Minimum disruption of current Pro/INTRALINK installation

The Pro/ENGINEER Flex3C package brings you the greatest value while solving your most common and daunting challenges in product development:

- Dealing with multiple systems, architectures, and databases that manage your digital product data
- Working in a chaotic, disconnected, or manual change control process
- Designing products with software that compromises part, product, or process
- Employing inefficient data management for the dispersed design team
- Struggling to manage cross-enterprise, globally distributed product development projects and teams

The 3Cs in Flex3C: Create • Collaborate • Control™

Pro/ENGINEER Flex3C delivers the essential capabilities – “The 3Cs” – needed to improve product development processes and gain a competitive advantage in today’s global marketplace:

- Create high-fidelity, complete digital product representations
- Collaborate cross-functionally both within an organization and throughout the digital product value chain
- Control product information and product development processes throughout the product’s lifecycle, from concept to product retirement

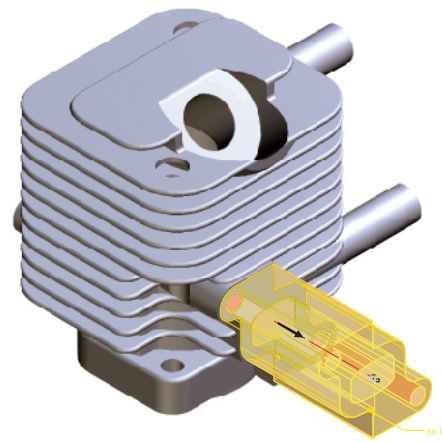
The components in the Flex3C value package deliver the “3Cs”, while also supporting the needs of engineering teams and their globally dispersed product development partners:

- Essential and advanced Pro/ENGINEER capabilities in industrial design, detailed design, simulation, and routed systems
- Design Collaboration via Windchill® ProjectLink™ and peer-to-peer Design Conferencing
- The ability to extend your existing Pro/INTRALINK implementation using the Pro/INTRALINK Gateway to publish Pro/ENGINEER data to the enterprise
- Windchill® PDMLink,™ PTC’s enterprise data management and product development process control software

Create • Collaborate • Control

The Pro/ENGINEER Flex3C package includes comprehensive, advanced CAD capabilities enabling you to create any part or product—without compromise.

- Design winning products faster with solid modeling, sheet metal design, production drawings, weldments, mechanism design, data repair, model quality checking, design animation, photorendering, and more
- Easily reuse legacy data, including 2D AutoCAD® files as a basis for 3D designs
- Leverage the Web to easily access information and communicate with coworkers, customers, and suppliers via Pro/COLLABORATE™, FTP, e-mail, and Web sites



Working directly on the model using interactive drag handles lets you create accurate geometry—fast

Six Powerful Pro/ENGINEER Extensions:

Advanced Assembly: Top-down assembly design, large assembly management, and process planning

- Design and manage large, complex products using tools that support top-down design
- Manage alternate product configurations
- Plan the assembly process and share the information with all relevant organizations

Interactive Surface Design: Easily create stunning freeform surfaces

- Quickly and easily design products with complex aesthetic surfaces
- Use 2D concept sketches as a loose visual reference in the creation of a 3D model
- Choose interactive, parametric, or direct surface modeling

Behavioral Modeling: Optimize designs according to engineering specifications

- Assess model sensitivity and understand the effects of change on design objectives
- Automatically generate a set of feasible solutions for multi-objective design problems
- Integrate your results with Pro/ENGINEER simulation software or other external applications

Mechanism Dynamics: Virtually engineer and simulate mechanisms

- Quickly obtain accurate data of dynamic analysis
- Incorporate dynamic influences as associative characteristics of design
- Employ behavioral modeling for design modification

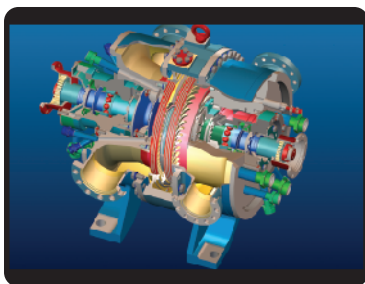
Cabling Design: Automatically route wires and cables in 3D space

- Logically reference diagram schematic data
- Automatically select preferred terminators, plugs, and wire strip length
- Calculate mass properties, and automatically generate customizable BOMs, wire lists, and flattened harnesses

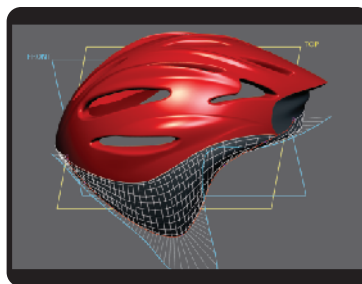
Piping Design: Automatically route pipelines in 3D space

- Read fluid diagrams electronically and use the information to interactively create 3D pipelines
- Evaluate pipelines for manufacturability and interference
- Create isometric drawings of pipelines and spools, instantaneously

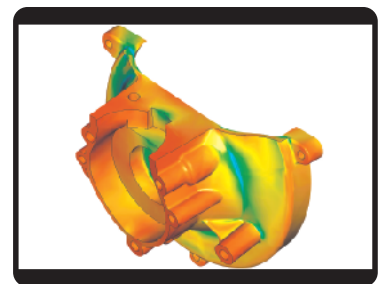
Pro/ENGINEER Flex3C value package delivers comprehensive, advanced CAD capabilities that enable you to complete the whole job without compromising part, product, or process



Advanced Assembly



Interactive Surface Design



Behavioral Modeling

Create • Collaborate • Control

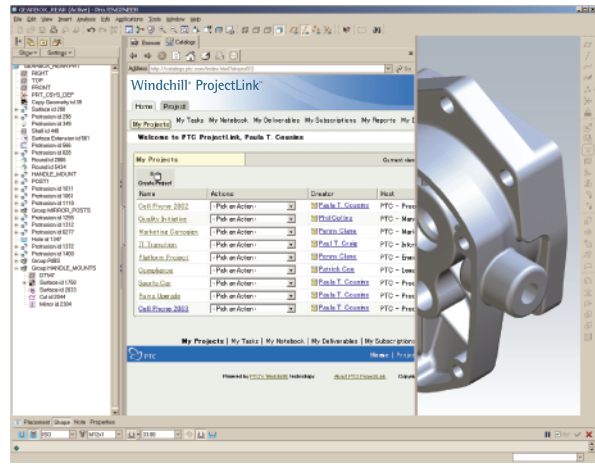
As the first CAD solution to fully support Web services, the new Pro/ENGINEER Wildfire dramatically enhances the ease of collaboration in product development. Flex3C lets you take advantage of this connectivity through these collaboration capabilities:

- Web connectivity: Connect to Windchill solutions, e-mail, FTP/Web sites, and online parts catalogs directly from your Pro/ENGINEER session
- Design Collaboration Extension: two key components (described further below)
 - Windchill® ProjectLink™: Collaborative project management for all members of the extended design team
 - Peer-to-peer Design Conferencing: Secure, Web-based, design conferencing for collaborating on Pro/ENGINEER Wildfire data in real-time

Windchill ProjectLink

Windchill ProjectLink is a quick-start, turnkey project management solution that enables comprehensive, real-time project collaboration for all members of your extended product development team. Users can quickly create Web-based virtual workspaces where globally and organizationally dispersed design team members can work together as if sitting in the same room.

- Meet deadlines easier through online, self-service project management, where users track project milestones, activities, tasks, deliverables, schedules, and resources
- Establish a central repository for all project-related information
- View lightweight (minimal file size) visuals of models generated in various CAD authoring tools
- Streamline business process management through an automated workflow
- Implement automatic change notification through subscription protocols
- Share design ideas in discussion forums and online collaborative meetings
- Host Windchill ProjectLink internally on your own server, or select an application service provider (ASP) model to reduce total cost of ownership



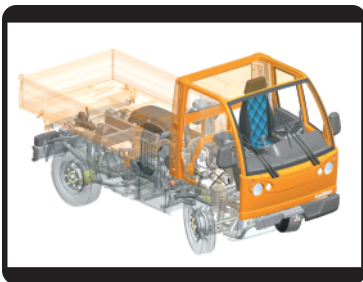
Windchill ProjectLink allows users to quickly create Web-based virtual workspaces where globally and organizationally dispersed design team members can work together as if in the same room

Peer-to-peer Design Conferencing

The second key component in the Pro/ENGINEER Design Collaboration Extension features Groove® Networks' innovative Web conferencing technology to deliver real-time, Web-based design review.

Flexible, fast, and secure, Peer-to-Peer Design Conferencing enables multiple users to share control of design sessions with their entire team, no matter where they are situated. It's a true breakthrough in design collaboration.

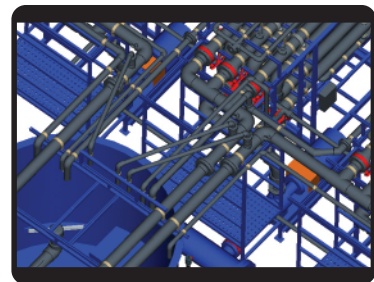
- Conduct real-time, peer-to-peer, multi-user design conferences with other Pro/ENGINEER Wildfire users via the Web
- Share control of design sessions, easily and securely
- Achieve high performance, secure information sharing using built-in, security technology from Groove Networks



Mechanism Dynamics



Cabling Design



Piping Design

Create • Collaborate • Control

Pro/ENGINEER Data Management

Product development today is a very complex process involving multiple products, projects, and partners operating across the globe. The vast amount of product data generated during this process demands a high degree of control. Pro/ENGINEER works in concert with your existing Pro/INTRALINK implementation and uses the Pro/INTRALINK Gateway to make Pro/ENGINEER data accessible to enterprise participants through Windchill PDMLink. This combination uniquely provides everything you need for total information and process control.

Here's how Pro/INTRALINK and Windchill PDMLink work together to provide an enterprise data management solution.

Pro/ENGINEER users can continue to manage Pro/ENGINEER data with Pro/INTRALINK. By adding Windchill PDMLink, these same users can also access enterprise functions, including participation in engineering change management and other product development processes. In addition, Windchill PDMLink, gives enterprise users access to Pro/ENGINEER metadata, Pro/ENGINEER graphical representations with mark-up capability, product structure, and BOM information.

This deployment option provides additional advantages for existing Pro/INTRALINK customers.

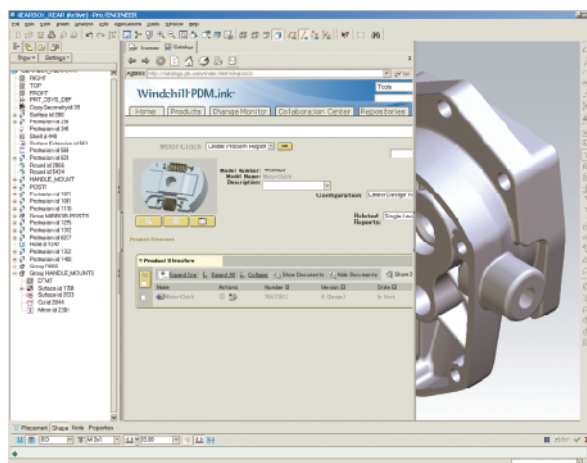
- It provides minimum disruption to a customer's development environment. Pro/ENGINEER users can continue to use their existing Pro/INTRALINK environment without having to be retrained.
- Multi-site Pro/INTRALINK deployments can continue to use Pro/INTRALINK replication tools to optimize performance of their Pro/ENGINEER workgroups.
- No data migration is required, Pro/ENGINEER work can continue uninterrupted both during and after the Windchill PDMLink implementation.

Benefits of Pro/INTRALINK working in concert with Windchill PDMLink:

- Rich, mature, and reliable Pro/ENGINEER data management
- Manages heterogeneous CAD, ECAD, and other product data
- Enterprise-wide access to product information
- Supports enterprise concurrent engineering
- Powerful workflow, change, and configuration management
- Optional integration with ERP and other enterprise systems

Turn Product Development into a Strategic Advantage

When your success is dependent on your product development process, you need tools that help you win by creating the best designs, collaborating effectively with your team, and controlling the processes and data that drive your products. And with Pro/ENGINEER Flex3C, you've got all the tools you need to turn product development into a unique strategic advantage.



Access Windchill PDMLink directly from the Pro/ENGINEER environment, and enjoy instant access to accurate product data.

PTC, the leader in Product Development Solutions, develops, markets, and supports software that helps manufacturers win by putting Product First.™ Today, more than 35,000 companies worldwide rely on PTC solutions to create digital products, collaborate on designs across the extended enterprise, and control digital product information.

For more information about PTC products and services, visit www.ptc.com or contact PTC at 781-370-6733.



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