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Product What's New

Pro/INTRALINK

[9.0 Replication](#)

You can use the new replication capabilities to improve system performance for remote users and external partners. In addition, these capabilities reduce replication setup and administrative maintenance tasks.

[Administrative Control of End User Objects](#)

This capability allows for an Administrator to cancel the checkout of another end user's data, including from the workspace.

[Archive and Purge Scheduling and Query Management](#)

Archiving and Purging can occur automatically at regularly scheduled intervals. Archive and purge collection rules can be edited, copied, merged, exported, and imported.

[Baseline Improvements](#)

Several improvements have been made in the creation and editing of managed baselines in Windchill 9.0. This includes dependency collection and multi-object select when creating a new baseline object.

[Delete Latest Iteration](#)

This new capability allows users to delete the latest iteration of the latest version for a CAD document, document, and part.

[Editing Family Tables Attributes](#)

Windchill 9.0 further expands the capability to modify object attributes in the workspace to include Family Table members.

[Enhanced Check-out of Non-latest](#)

Windchill 9.0 provides the user with the ability to check out to their workspace a non-latest iteration of an object.

[Finding Objects in Your Workspace](#)

Windchill 9.0 introduces two new features to the workspace to aid users in navigating the contents of their workspace – Find and Featured objects display.

[General Usability](#)

Windchill 9.0 includes many usability features that improve the user's experience and throughput.

[Model Structure Report Improvements](#)

The Model Structure Report for viewing CAD relationships has been improved in Windchill 9.0 to provide consistent capabilities across all Windchill-based products, including new capabilities allowing for the editing of attributes associated with a structure.

[New Access Control Permissions and New Access Control User Interface](#)

Windchill Release 9.0 provides more granular control over user permissions to objects, and better visibility into what permissions have been granted to which users for a selected object.

[Non-file-based Attributes](#)

In Windchill 9.0, when creating attributes for the CAD Document type, you can specify whether an attribute is propagated to the CAD file or is only visible in Windchill.

[Object Information Pages](#)

Windchill 9.0 uses a common redesigned and streamlined object information page.

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Windchill Release 9.0 provides improvements to object initialization rules that reduce the need for customizations to implement and enforce customer-specific business rules.

[PTC Solution Installer](#)

The new PTC Solution Installer guides administrators through the process of installing all the Windchill products, modules, and platform components.

[Rule/Incremental Add to Workspace and Checkout Options](#)

Windchill 9.0 presents a new user interface for Add to Workspace and Checkout that provides either rule-based or incremental options for proceeding through these processes.

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The Security Auditing capabilities for Windchill have been greatly enhanced for version 9.0 to include more detailed audit logs, including an ability to report on both unique user accesses and concurrent user counts over a given time period.

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The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to

include support for the Routed Systems Designer application.

[Support for SQL Server 2005](#)

Starting with 8.0 M040, and continuing with 9.0, Windchill now supports the use of Microsoft SQL Server 2005 for its database. The Workgroup, Standard, and Enterprise editions of SQL Server are all supported.

[System Monitoring and Management](#)

Windchill Release 9.0 provides more effective troubleshooting and issue resolution, as well as periodic testing and background system monitoring capabilities through incorporation of the industry standard Log4j and JMX frameworks.

[Table Common Component](#)

Windchill makes extensive use of tables. In Windchill 9.0 a new table component provides many usability enhancements.

[Updates to Document Management](#)

Windchill 9.0 includes usability updates to Windchill document management and Windchill Desktop Integration.

[Web Services – Interoperability Compliance](#)

Windchill's Web Services capabilities have been updated in Release 9.0 to be compliant with the latest Web Services – Interoperability (WS-I) standards.

[Workspace Import and Export](#)

Pro/ENGINEER CAD files can be imported to and exported from a workspace within the embedded browser, without retrieving them into a Pro/ENGINEER session.

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With Windchill 9.0 Save As, or copy, is available in the workspace. The new workspace Save As is cognizant of CAD file relationships and includes the Update Parent capability for Pro/ENGINEER data.

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[Archive and Purge Scheduling and Query Management](#)

Archiving and Purging can occur automatically at regularly scheduled intervals. Archive and purge collection rules can be edited, copied, merged, exported, and imported.

Product What's New

Windchill Integration for Rational ClearCase

[Interfacing With Multiple IBM Rational ClearCase Environments](#)

The Windchill Integration for IBM Rational ClearCase in Windchill Release 9.0 provides the ability to communicate with multiple ClearCase environments.

Product What's New

Windchill MPMLink

[Associative eBOM-mBOM Transformation](#)

With the release of Windchill MPMLink, PTC has extended the Windchill view mechanism to support associative eBOM-mBOM transformations, which allows for the transformation of engineering bills of materials (eBOM) into multiple manufacturing bills of materials (mBOM), while keeping associativity using traceability links.

[Deviations and Waivers](#)

Deviations or waivers can be documented against the released configuration of a product. The supplied deviation/waiver approval process or a site-specific deviation/waiver process can be used.

[Digital Definition of Process Plans](#)

With the release of Windchill MPMLink, PTC now supports the digital definition of plant-specific process plans. Process plans are the sequences and operations that define how a part is manufactured, assembled, reworked, repaired, maintained, or inspected, and contain associative links to the mBOMs and manufacturing resources.

[Dynamically Generated Work Instructions](#)

With the release of Windchill MPMLink, PTC now supports the dynamic generation of work instructions. Work instructions include the process plan definition, associated documents like 3D visual aids and a record of Windchill change history. Work instructions are available for shop floor operators through a simple web browser.

[Manage Libraries of Resources and Manufacturing Standards](#)

With the release of Windchill MPMLink, users can define and manage resource libraries (plants, work centers, tooling, process materials, and skills) and manufacturing standards libraries (manufacturing capabilities and standard procedures).

[Workspace Import and Export](#)

Pro/ENGINEER CAD files can be imported to and exported from a workspace within the embedded browser, without retrieving them into a Pro/ENGINEER session.

Product What's New

Windchill PDMLink

[9.0 Replication](#)

You can use the new replication capabilities to improve system performance for remote users and external partners. In addition, these capabilities reduce replication setup and administrative maintenance tasks.

[Add to Project Preference Options](#)

Streamline the steps to share related Product information to a Project. When adding information from a Product to a Project context, there are new preferences for default objects to be added to the collection list.

[Add to Workspace and Check-Out Options](#)

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

[Additional File Type Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

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This capability allows for an Administrator to cancel the checkout of another end user's data, including from the workspace.

[Adobe LiveCycle Forms Support for Workflow Tasks](#)

Windchill Release 9.0 will support the association of Adobe LiveCycle Forms with workflow activities. Through the use of Adobe Forms, Administrators gain precise control over the presentation and validation of workflow task pages. As a result, the forms presented to users are familiar, and their work can be saved off-line and submitted when ready.

[Alternate and Substitute Improvements](#)

The Windchill PDMLink capabilities for alternates and substitutes have been improved, making information about replacement parts easier to create, view, and retrieve.

[Arbortext Advanced Print Publisher Support](#)

Windchill 9.0 introduces the support for the Arbortext Advanced Print Publisher as an option for automated publishing of high quality, layout-intensive documents. The Arbortext Advanced Print Publisher can be installed with Windchill PDMLink, Windchill ProjectLink or Arbortext Content Manager.

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Archiving and Purging can occur automatically at regularly scheduled intervals. Archive and purge collection rules can be edited, copied, merged, exported, and imported.

[Attribute Handling for Windchill Workgroup Managers](#)

The format of the Windchill attributes which was added by the Workgroup Managers to the CAD file has changed in Windchill 9.0.

[Baseline Improvements](#)

Several improvements have been made in the creation and editing of managed baselines in Windchill 9.0. This includes dependency collection and multi-object select when creating a new baseline object.

[BOM Notes](#)

Windchill 9.0 provides the ability to capture design note information in the Windchill database and associate it with an assembly product structure.

[Browser-Based Product Structure Editing](#)

The browser-based product structure editing capability in Windchill Release 9.0 enables users to quickly create or update a single-level product structure with new or existing parts.

[Change Management Usability Improvements](#)

The Change Management capabilities in Windchill 9.0 have been significantly expanded and productivity improvements have been made to manage your change tasks and process more effectively. The user interface for creating and editing the change management objects, performing workflow tasks associated with the change management process, and displaying the information associated with the change management objects has been completely redesigned for Windchill Release 9.0. Numerous enhancement requests and software defects have been resolved as a result of the new user interface.

[Changes Without Change Requests](#)

Change notices can be planned, implemented, and released without the requirement for an associated change request.

[Checkout on the Fly](#)

Windchill 9.0 Workgroup Manager users will be able to “checkout on the fly” any CAD models they’ve locally modified.

[Classification of Parts](#)

Parts can be classified using the HTML part create action in Windchill Release 9.0.

Classification can also be limited to leaf or terminal nodes.

[Configuration and Instance Usability Improvements](#)

The user interfaces for the creation of part configurations and instances have been enhanced and streamlined. All operations for creating As-Built product structures have been consolidated into web pages, making the flow of operations more intuitive and efficient.

[Creating a Generic Product Platform](#)

In Windchill 9.0 users have the capability to create a product structure with optional elements comprised of new or existing parts as well as establish logical expressions controlling the usage and applicability of these options.

[Delete Latest Iteration](#)

This new capability allows users to delete the latest iteration of the latest version for a CAD document, document, and part.

[Deviations and Waivers](#)

Deviations or waivers can be documented against the released configuration of a product. The supplied deviation/waiver approval process or a site-specific deviation/waiver process can be used.

[Drawing Reference Links](#)

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

[Editing Family Tables Attributes](#)

Windchill 9.0 further expands the capability to modify object attributes in the workspace to include Family Table members.

[Effectivity Processing Improvements](#)

Windchill 9.0 provides improvements to the types of effectivity statements and user interfaces available for setting effectivity. Users may now set effectivity for multiple parts in a product structure in a single operation by using effectivity propagation.

[Enhanced Check-out of Non-latest](#)

Windchill 9.0 provides the user with the ability to check out to their workspace a non-latest iteration of an object.

[General Rename Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the Rename ability for all supported CAD systems. Note: Rename ability is NOT available for CATIA V5, CATIA V4,

CADDS 5 and I-DEAS data in Windchill.

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The Windchill Workgroup Managers in Windchill 9.0 have the Save As ability for all supported CAD systems. Note: Save As ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[General Usability](#)

Windchill 9.0 includes many usability features that improve the user's experience and throughput.

[Generating a Product Variant](#)

In Windchill 9.0, users can create a new product variation with a specific set of options from a generic product platform.

[Improved handling of CATIA V5 Design Tables](#)

The Windchill Workgroup Manager for CATIA V5 in Windchill 9.0 offers improved handling of CATIA V5 Design Tables in the Windchill system.

[Interfacing With Multiple IBM Rational ClearCase Environments](#)

The Windchill Integration for IBM Rational ClearCase in Windchill Release 9.0 provides the ability to communicate with multiple ClearCase environments.

[Inventor iPart Factory Support](#)

In Windchill 9.0, the handling of iPart Factories is improved for the Windchill Workgroup Manager of Autodesk Inventor.

[Managing Change Management Object Modifications](#)

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

[Model Structure Report Improvements](#)

The Model Structure Report for viewing CAD relationships has been improved in Windchill 9.0 to provide consistent capabilities across all Windchill-based products, including new capabilities allowing for the editing of attributes associated with a structure.

[Multiple CAD Application Interaction](#)

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

[Native CAD icons for AutoCAD and Autodesk Inventor files managed in Windchill](#)

Windchill 9.0 users will be able to identify AutoCAD and Autodesk Inventor files managed in Windchill with the same icons used for those file types in the native CAD tools, respectively.

[New Access Control Permissions and New Access Control User Interface](#)

Windchill Release 9.0 provides more granular control over user permissions to objects, and better visibility into what permissions have been granted to which users for a selected object.

[Non-file-based Attributes](#)

In Windchill 9.0, when creating attributes for the CAD Document type, you can specify whether an attribute is propagated to the CAD file or is only visible in Windchill.

[NX Part Family Support in Windchill](#)

The Windchill Workgroup Manager for NX in Windchill 9.0 has been enhanced to include support for the NX Part Families.

[Object Identification and Revision Scheme Policies](#)

The unique identification of product information is a fundamental capability of a global (distributed) engineering environment. In this context, the globally unique identification of product information consists of an organization identifier, a proprietary object identifier, and possibly a revision label. Windchill 9.0 provides improved configuration of object identification and revision scheme policies in support of industry standards and company practices.

[Object Information Pages](#)

Windchill 9.0 uses a common redesigned and streamlined object information page.

[Object Initialization Rules](#)

Windchill Release 9.0 provides improvements to object initialization rules that reduce the need for customizations to implement and enforce customer-specific business rules.

[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Part Request](#)

You can initiate a part request process when a new part is needed. This request will be routed to various stakeholders for additional information and approvals.

[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[Product Structure Explorer Find in Tree](#)

You can use the new Find in Tree capability of the PSE to locate specific parts that may be multiple levels deep within a large Windchill product structure. Two forms of the Find in Tree function make it possible to address both simple and more powerful searches.

[Product Structure Explorer Flexible Column Display](#)

The Windchill 9.0 Product Structure Explorer (PSE) allows you to define and order the columns to display in tables. The display you define becomes the default each time the PSE is launched. Administrators can also define PSE column displays for use by the entire organization.

[Product Structure Explorer Related-Data Indicators](#)

The Windchill 9.0 Product Structure Explorer (PSE) displays icons to indicate the presence of related data. These icons can also act as links to the related information.

[Product Structure Explorer Validation Tool](#)

Validation provides the ability to check whether the changes made in a draft session of the PSE can be successfully applied. As part of the validation, the PSE displays any failures and corrective actions needed.

[Product Structure Explorer, Improved Occurrence Display](#)

In Windchill 9.0, the PSE provides you with the ability to select and expand a subassembly in the product structure tree to show occurrence-specific information. Previously, you had to select a separate Occurrences tab to view all occurrences for all child parts.

[ProductView Lite User Experience](#)

ProductView Lite User Interface is totally re-designed with a strong focus on usability and is aligned with Microsoft Office 2007 look and feel

[Project Linking and Tiering](#)

The new Project linking and tiering capabilities introduce a powerful approach to manage large company projects. With this new capability, key information from multiple projects may be linked to share status, ease navigation and communicate overall project structure.

[ProjectLink Support](#)

Windchill 9.0 introduces support for the management of Arbortext dynamic documents in Windchill ProjectLink.

[PTC Solution Installer](#)

The new PTC Solution Installer guides administrators through the process of installing all the Windchill products, modules, and platform components.

[Reference Designator Improvements](#)

Windchill 9.0 provides the ability to assign and display reference designators for product structure occurrences individually or by using ranges.

[Role Based User Interface](#)

The role-based configuration capability in Windchill 9.0 allows administrators to configure the user interface to fit a user's profile, tasks, and information needs.

[Rule/Incremental Add to Workspace and Checkout Options](#)

Windchill 9.0 presents a new user interface for Add to Workspace and Checkout that provides either rule-based or incremental options for proceeding through these processes.

[Security Auditing and License Usage Reporting](#)

The Security Auditing capabilities for Windchill have been greatly enhanced for version 9.0 to include more detailed audit logs, including an ability to report on both unique user accesses and concurrent user counts over a given time period.

[Specifying the Options for a Product Variation](#)

Windchill 9.0 provides the capability for users to select the options they desire for a product variation from the set of available options for a generic product platform, using an easy-to-use configuration wizard.

[Subscription and Notification](#)

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[Table Common Component](#)

Windchill makes extensive use of tables. In Windchill 9.0 a new table component provides

many usability enhancements.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Unified Part Model](#)

The functionality of parts has been improved and unified in Windchill 9.0. Users now have increased flexibility to define and modify traceability specific to their product structure usage.

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[Web Services – Interoperability Compliance](#)

Windchill's Web Services capabilities have been updated in Release 9.0 to be compliant with the latest Web Services – Interoperability (WS-I) standards.

[Windchill Business Reporting](#)

Windchill Business Reporting is a new reporting framework that uses industry leading Cognos 8 Business Intelligence, to increase information visibility and access for business decision makers and to help reduce reporting costs by providing users with the capability to quickly develop and distribute robust reports using your Windchill data.

[Windchill Customizations](#)

New JSP-based Windchill client technology provides high-level building blocks to quickly create Windchill customizations.

[Windchill Index Search](#)

Search has been improved with the addition of Windchill Index Search. This search engine includes features such as spell checking, content teasers, and search results sorted by relevancy.

[Windchill Server Registration](#)

The Windchill 9.0 Workgroup Manager allows users to easily register and interact with multiple Windchill servers from the same Windchill Workgroup Manager application.

[Workspace Import and Export](#)

Pro/ENGINEER CAD files can be imported to and exported from a workspace within the embedded browser, without retrieving them into a Pro/ENGINEER session.

[Workspace Preferences](#)

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

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With Windchill 9.0 Save As, or copy, is available in the workspace. The new workspace Save As is cognizant of CAD file relationships and includes the Update Parent capability for Pro/ENGINEER data.

[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

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[Improved handling of CATIA V5 Design Tables](#)

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[Integral Windchill ProjectLink with Arbortext Content Manager](#)

Windchill ProjectLink with Arbortext Content Manager enables organizations to easily execute projects and inspires collaboration among members of an extended content-creation team.

[Interfacing With Multiple IBM Rational ClearCase Environments](#)

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[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[ProductView Lite User Experience](#)

ProductView Lite User Interface is totally re-designed with a strong focus on usability and is aligned with Microsoft Office 2007 look and feel

[Project Linking and Tiering](#)

The new Project linking and tiering capabilities introduce a powerful approach to manage large company projects. With this new capability, key information from multiple projects may be linked to share status, ease navigation and communicate overall project structure.

[ProjectLink Support](#)

Windchill 9.0 introduces support for the management of Arbortext dynamic documents in Windchill ProjectLink.

[PTC Solution Installer](#)

The new PTC Solution Installer guides administrators through the process of installing all the Windchill products, modules, and platform components.

[Reference Designator Improvements](#)

Windchill 9.0 provides the ability to assign and display reference designators for product structure occurrences individually or by using ranges.

[Role Based User Interface](#)

The role-based configuration capability in Windchill 9.0 allows administrators to configure the user interface to fit a user's profile, tasks, and information needs.

[Rule/Incremental Add to Workspace and Checkout Options](#)

Windchill 9.0 presents a new user interface for Add to Workspace and Checkout that provides either rule-based or incremental options for proceeding through these processes.

[Security Auditing and License Usage Reporting](#)

The Security Auditing capabilities for Windchill have been greatly enhanced for version 9.0 to include more detailed audit logs, including an ability to report on both unique user accesses and concurrent user counts over a given time period.

[Subscription and Notification](#)

Windchill Release 9.0 offers more powerful and flexible subscription and notification capabilities.

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

[Support for SQL Server 2005](#)

Starting with 8.0 M040, and continuing with 9.0, Windchill now supports the use of Microsoft SQL Server 2005 for its database. The Workgroup, Standard, and Enterprise editions of SQL Server are all supported.

[Table Common Component](#)

Windchill makes extensive use of tables. In Windchill 9.0 a new table component provides many usability enhancements.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Unified Part Model](#)

The functionality of parts has been improved and unified in Windchill 9.0. Users now have increased flexibility to define and modify traceability specific to their product structure

usage.

[Updates to Document Management](#)

Windchill 9.0 includes usability updates to Windchill document management and Windchill Desktop Integration.

[Web Services – Interoperability Compliance](#)

Windchill's Web Services capabilities have been updated in Release 9.0 to be compliant with the latest Web Services – Interoperability (WS-I) standards.

[Windchill Business Reporting](#)

Windchill Business Reporting is a new reporting framework that uses industry leading Cognos 8 Business Intelligence, to increase information visibility and access for business decision makers and to help reduce reporting costs by providing users with the capability to quickly develop and distribute robust reports using your Windchill data.

[Windchill Customizations](#)

New JSP-based Windchill client technology provides high-level building blocks to quickly create Windchill customizations.

[Windchill Index Search](#)

Search has been improved with the addition of Windchill Index Search. This search engine includes features such as spell checking, content teasers, and search results sorted by relevancy.

[Windchill Server Registration](#)

The Windchill 9.0 Workgroup Manager allows users to easily register and interact with multiple Windchill servers from the same Windchill Workgroup Manager application.

[Workspace Preferences](#)

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

[Workspace Save As](#)

With Windchill 9.0 Save As, or copy, is available in the workspace. The new workspace Save As is cognizant of CAD file relationships and includes the Update Parent capability for Pro/ENGINEER data.

[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

Windchill Supplier Management

[Part Request](#)

You can initiate a part request process when a new part is needed. This request will be routed to various stakeholders for additional information and approvals.

Product What's New

Windchill Workgroup Manager for AutoCAD

[Add to Workspace and Check-Out Options](#)

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

[Additional File Type Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

[Attribute Handling for Windchill Workgroup Managers](#)

The format of the Windchill attributes which was added by the Workgroup Managers to the CAD file has changed in Windchill 9.0.

[Checkout on the Fly](#)

Windchill 9.0 Workgroup Manager users will be able to “checkout on the fly” any CAD models they’ve locally modified.

[Drawing Reference Links](#)

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

[General Rename Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the Rename ability for all supported CAD systems. Note: Rename ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[General Save As Support for Windchill Workgroup Managers](#)

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[Multiple CAD Application Interaction](#)

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

[Native CAD icons for AutoCAD and Autodesk Inventor files managed in Windchill](#)

Windchill 9.0 users will be able to identify AutoCAD and Autodesk Inventor files managed in Windchill with the same icons used for those file types in the native CAD tools, respectively.

[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Preferences Managed in Windchill](#)

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[Support for Routed Systems Designer](#)

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[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

Windchill Workgroup Manager for Autodesk Inventor

[Add to Workspace and Check-Out Options](#)

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

[Additional File Type Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

[Attribute Handling for Windchill Workgroup Managers](#)

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[Checkout on the Fly](#)

Windchill 9.0 Workgroup Manager users will be able to “checkout on the fly” any CAD models they’ve locally modified.

[Drawing Reference Links](#)

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

[General Rename Support for Windchill Workgroup Managers](#)

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[Inventor iPart Factory Support](#)

In Windchill 9.0, the handling of iPart Factories is improved for the Windchill Workgroup Manager of Autodesk Inventor.

[Multiple CAD Application Interaction](#)

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

[Native CAD icons for AutoCAD and Autodesk Inventor files managed in Windchill](#)

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[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Windchill Server Registration](#)

The Windchill 9.0 Workgroup Manager allows users to easily register and interact with multiple Windchill servers from the same Windchill Workgroup Manager application.

[Workspace Preferences](#)

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

Windchill Workgroup Manager for CATIA V5

[Add to Workspace and Check-Out Options](#)

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

[Additional File Type Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

[Attribute Handling for Windchill Workgroup Managers](#)

The format of the Windchill attributes which was added by the Workgroup Managers to the CAD file has changed in Windchill 9.0.

[Checkout on the Fly](#)

Windchill 9.0 Workgroup Manager users will be able to “checkout on the fly” any CAD models they’ve locally modified.

[Drawing Reference Links](#)

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

[Improved handling of CATIA V5 Design Tables](#)

The Windchill Workgroup Manager for CATIA V5 in Windchill 9.0 offers improved handling of CATIA V5 Design Tables in the Windchill system.

[Multiple CAD Application Interaction](#)

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Windchill Server Registration](#)

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[Workspace Preferences](#)

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

Windchill Workgroup Manager for ECAD

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

Product What's New

Windchill Workgroup Manager for SolidWorks

[Add to Workspace and Check-Out Options](#)

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

[Additional File Type Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

[Attribute Handling for Windchill Workgroup Managers](#)

The format of the Windchill attributes which was added by the Workgroup Managers to the CAD file has changed in Windchill 9.0.

[Checkout on the Fly](#)

Windchill 9.0 Workgroup Manager users will be able to “checkout on the fly” any CAD models they’ve locally modified.

[Drawing Reference Links](#)

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

[General Rename Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the Rename ability for all supported CAD systems. Note: Rename ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[General Save As Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the Save As ability for all supported CAD systems. Note: Save As ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[Multiple CAD Application Interaction](#)

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Windchill Server Registration](#)

The Windchill 9.0 Workgroup Manager allows users to easily register and interact with multiple Windchill servers from the same Windchill Workgroup Manager application.

[Workspace Preferences](#)

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

Windchill Workgroup Manager for UGS NX

[Add to Workspace and Check-Out Options](#)

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

[Additional File Type Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

[Attribute Handling for Windchill Workgroup Managers](#)

The format of the Windchill attributes which was added by the Workgroup Managers to the CAD file has changed in Windchill 9.0.

[Checkout on the Fly](#)

Windchill 9.0 Workgroup Manager users will be able to “checkout on the fly” any CAD models they’ve locally modified.

[Drawing Reference Links](#)

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

[General Rename Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the Rename ability for all supported CAD systems. Note: Rename ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[General Save As Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the Save As ability for all supported CAD systems. Note: Save As ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[Multiple CAD Application Interaction](#)

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

[NX Part Family Support in Windchill](#)

The Windchill Workgroup Manager for NX in Windchill 9.0 has been enhanced to include support for the NX Part Families.

[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Windchill Server Registration](#)

The Windchill 9.0 Workgroup Manager allows users to easily register and interact with multiple Windchill servers from the same Windchill Workgroup Manager application.

[Workspace Preferences](#)

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

3rd Party MCAD Data Management

[Add to Workspace and Check-Out Options](#)

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

[Additional File Type Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

[Administrative Control of End User Objects](#)

This capability allows for an Administrator to cancel the checkout of another end user's data, including from the workspace.

[Attribute Handling for Windchill Workgroup Managers](#)

The format of the Windchill attributes which was added by the Workgroup Managers to the CAD file has changed in Windchill 9.0.

[Checkout on the Fly](#)

Windchill 9.0 Workgroup Manager users will be able to "checkout on the fly" any CAD models they've locally modified.

[Drawing Reference Links](#)

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

[General Rename Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the Rename ability for all supported CAD systems. Note: Rename ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[General Save As Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the Save As ability for all supported CAD systems. Note: Save As ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[Improved handling of CATIA V5 Design Tables](#)

The Windchill Workgroup Manager for CATIA V5 in Windchill 9.0 offers improved handling of CATIA V5 Design Tables in the Windchill system.

[Inventor iPart Factory Support](#)

In Windchill 9.0, the handling of iPart Factories is improved for the Windchill Workgroup Manager of Autodesk Inventor.

[Multiple CAD Application Interaction](#)

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

[Native CAD icons for AutoCAD and Autodesk Inventor files managed in Windchill](#)

Windchill 9.0 users will be able to identify AutoCAD and Autodesk Inventor files managed in Windchill with the same icons used for those file types in the native CAD tools, respectively.

[NX Part Family Support in Windchill](#)

The Windchill Workgroup Manager for NX in Windchill 9.0 has been enhanced to include support for the NX Part Families.

[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[ProjectLink Support](#)

Windchill 9.0 introduces support for the management of Arbortext dynamic documents in Windchill ProjectLink.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Windchill Server Registration](#)

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[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

Access Control

[New Access Control Permissions and New Access Control User Interface](#)

Windchill Release 9.0 provides more granular control over user permissions to objects, and better visibility into what permissions have been granted to which users for a selected object.

Product What's New

Administration

[Role Based User Interface](#)

The role-based configuration capability in Windchill 9.0 allows administrators to configure the user interface to fit a user's profile, tasks, and information needs.

Product What's New

Arbortext Document Management

[Administrative Control of End User Objects](#)

This capability allows for an Administrator to cancel the checkout of another end user's data, including from the workspace.

[Arbortext Advanced Print Publisher Support](#)

Windchill 9.0 introduces the support for the Arbortext Advanced Print Publisher as an option for automated publishing of high quality, layout-intensive documents. The Arbortext Advanced Print Publisher can be installed with Windchill PDMLink, Windchill ProjectLink or Arbortext Content Manager.

[Integral Windchill ProjectLink with Arbortext Content Manager](#)

Windchill ProjectLink with Arbortext Content Manager enables organizations to easily execute projects and inspires collaboration among members of an extended content-creation team.

Product What's New

Change Processing

[Change Management Usability Improvements](#)

The Change Management capabilities in Windchill 9.0 have been significantly expanded and productivity improvements have been made to manage your change tasks and process more effectively. The user interface for creating and editing the change management objects, performing workflow tasks associated with the change management process, and displaying the information associated with the change management objects has been completely redesigned for Windchill Release 9.0. Numerous enhancement requests and software defects have been resolved as a result of the new user interface.

[Changes Without Change Requests](#)

Change notices can be planned, implemented, and released without the requirement for an associated change request.

[Managing Change Management Object Modifications](#)

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

[Object Identification and Revision Scheme Policies](#)

The unique identification of product information is a fundamental capability of a global (distributed) engineering environment. In this context, the globally unique identification of product information consists of an organization identifier, a proprietary object identifier, and possibly a revision label. Windchill 9.0 provides improved configuration of object identification and revision scheme policies in support of industry standards and company practices.

Product What's New

Check out / Add to Project

[Add to Project Preference Options](#)

Streamline the steps to share related Product information to a Project. When adding information from a Product to a Project context, there are new preferences for default objects to be added to the collection list.

Product What's New

Classification

[Classification of Parts](#)

Parts can be classified using the HTML part create action in Windchill Release 9.0. Classification can also be limited to leaf or terminal nodes.

Product What's New

Configuration

[Object Initialization Rules](#)

Windchill Release 9.0 provides improvements to object initialization rules that reduce the need for customizations to implement and enforce customer-specific business rules.

Product What's New

Configuration management

[Alternate and Substitute Improvements](#)

The Windchill PDMLink capabilities for alternates and substitutes have been improved, making information about replacement parts easier to create, view, and retrieve.

[Baseline Improvements](#)

Several improvements have been made in the creation and editing of managed baselines in Windchill 9.0. This includes dependency collection and multi-object select when creating a new baseline object.

[Configuration and Instance Usability Improvements](#)

The user interfaces for the creation of part configurations and instances have been enhanced and streamlined. All operations for creating As-Built product structures have been consolidated into web pages, making the flow of operations more intuitive and efficient.

[Effectivity Processing Improvements](#)

Windchill 9.0 provides improvements to the types of effectivity statements and user interfaces available for setting effectivity. Users may now set effectivity for multiple parts in a product structure in a single operation by using effectivity propagation.

[Unified Part Model](#)

The functionality of parts has been improved and unified in Windchill 9.0. Users now have increased flexibility to define and modify traceability specific to their product structure usage.

Product What's New

Customization

[Windchill Customizations](#)

New JSP-based Windchill client technology provides high-level building blocks to quickly create Windchill customizations.

Product What's New

Databases

[Support for SQL Server 2005](#)

Starting with 8.0 M040, and continuing with 9.0, Windchill now supports the use of Microsoft SQL Server 2005 for its database. The Workgroup, Standard, and Enterprise editions of SQL Server are all supported.

Product What's New

Deviations and Waivers

[Deviations and Waivers](#)

Deviations or waivers can be documented against the released configuration of a product. The supplied deviation/waiver approval process or a site-specific deviation/waiver process can be used.

[Managing Change Management Object Modifications](#)

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

Product What's New

Document Management

[Updates to Document Management](#)

Windchill 9.0 includes usability updates to Windchill document management and Windchill Desktop Integration.

Product What's New

ECAD Data Management

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

Product What's New

Import/Export

[Delete Latest Iteration](#)

This new capability allows users to delete the latest iteration of the latest version for a CAD document, document, and part.

Product What's New

Info*Engine

[Web Services – Interoperability Compliance](#)

Windchill's Web Services capabilities have been updated in Release 9.0 to be compliant with the latest Web Services – Interoperability (WS-I) standards.

Product What's New

Infrastructure

[New Access Control Permissions and New Access Control User Interface](#)

Windchill Release 9.0 provides more granular control over user permissions to objects, and better visibility into what permissions have been granted to which users for a selected object.

[Support for SQL Server 2005](#)

Starting with 8.0 M040, and continuing with 9.0, Windchill now supports the use of Microsoft SQL Server 2005 for its database. The Workgroup, Standard, and Enterprise editions of SQL Server are all supported.

Product What's New

Installation and Administration

[PTC Solution Installer](#)

The new PTC Solution Installer guides administrators through the process of installing all the Windchill products, modules, and platform components.

[Security Auditing and License Usage Reporting](#)

The Security Auditing capabilities for Windchill have been greatly enhanced for version 9.0 to include more detailed audit logs, including an ability to report on both unique user accesses and concurrent user counts over a given time period.

Product What's New

Integrations

[Web Services – Interoperability Compliance](#)

Windchill's Web Services capabilities have been updated in Release 9.0 to be compliant with the latest Web Services – Interoperability (WS-I) standards.

Product What's New

Investigation and Change Justification

[Managing Change Management Object Modifications](#)

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

Product What's New

Manufacturing Libraries

[Manage Libraries of Resources and Manufacturing Standards](#)

With the release of Windchill MPMLink, users can define and manage resource libraries (plants, work centers, tooling, process materials, and skills) and manufacturing standards libraries (manufacturing capabilities and standard procedures).

Product What's New

Manufacturing Parts and BOMs

[Associative eBOM-mBOM Transformation](#)

With the release of Windchill MPMLink, PTC has extended the Windchill view mechanism to support associative eBOM-mBOM transformations, which allows for the transformation of engineering bills of materials (eBOM) into multiple manufacturing bills of materials (mBOM), while keeping associativity using traceability links.

Product What's New

Manufacturing Process Plans

[Digital Definition of Process Plans](#)

With the release of Windchill MPMLink, PTC now supports the digital definition of plant-specific process plans. Process plans are the sequences and operations that define how a part is manufactured, assembled, reworked, repaired, maintained, or inspected, and contain associative links to the mBOMs and manufacturing resources.

Product What's New

Manufacturing Process and Resource Management

[Dynamically Generated Work Instructions](#)

With the release of Windchill MPMLink, PTC now supports the dynamic generation of work instructions. Work instructions include the process plan definition, associated documents like 3D visual aids and a record of Windchill change history. Work instructions are available for shop floor operators through a simple web browser.

Product What's New

Manufacturing Resource Management

[Manage Libraries of Resources and Manufacturing Standards](#)

With the release of Windchill MPMLink, users can define and manage resource libraries (plants, work centers, tooling, process materials, and skills) and manufacturing standards libraries (manufacturing capabilities and standard procedures).

Product What's New

Need Identification

[Managing Change Management Object Modifications](#)

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

Product What's New

Performance, Import/Export, and Replication

[9.0 Replication](#)

You can use the new replication capabilities to improve system performance for remote users and external partners. In addition, these capabilities reduce replication setup and administrative maintenance tasks.

[Archive and Purge Scheduling and Query Management](#)

Archiving and Purging can occur automatically at regularly scheduled intervals. Archive and purge collection rules can be edited, copied, merged, exported, and imported.

[Workspace Import and Export](#)

Pro/ENGINEER CAD files can be imported to and exported from a workspace within the embedded browser, without retrieving them into a Pro/ENGINEER session.

Product What's New

Planning & Implementing Changes

[Changes Without Change Requests](#)

Change notices can be planned, implemented, and released without the requirement for an associated change request.

Product What's New

Planning, Implementation, and Release

[Managing Change Management Object Modifications](#)

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

Product What's New

Pro/ENGINEER Data Management

[Administrative Control of End User Objects](#)

This capability allows for an Administrator to cancel the checkout of another end user's data, including from the workspace.

[Editing Family Tables Attributes](#)

Windchill 9.0 further expands the capability to modify object attributes in the workspace to include Family Table members.

[Enhanced Check-out of Non-latest](#)

Windchill 9.0 provides the user with the ability to check out to their workspace a non-latest iteration of an object.

[Finding Objects in Your Workspace](#)

Windchill 9.0 introduces two new features to the workspace to aid users in navigating the contents of their workspace – Find and Featured objects display.

[Model Structure Report Improvements](#)

The Model Structure Report for viewing CAD relationships has been improved in Windchill 9.0 to provide consistent capabilities across all Windchill-based products, including new capabilities allowing for the editing of attributes associated with a structure.

[Non-file-based Attributes](#)

In Windchill 9.0, when creating attributes for the CAD Document type, you can specify whether an attribute is propagated to the CAD file or is only visible in Windchill.

[Rule/Incremental Add to Workspace and Checkout Options](#)

Windchill 9.0 presents a new user interface for Add to Workspace and Checkout that provides either rule-based or incremental options for proceeding through these processes.

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

[Workspace Save As](#)

With Windchill 9.0 Save As, or copy, is available in the workspace. The new workspace Save As is cognizant of CAD file relationships and includes the Update Parent capability for Pro/ENGINEER data.

Product What's New

Product Options and Variants

[Creating a Generic Product Platform](#)

In Windchill 9.0 users have the capability to create a product structure with optional elements comprised of new or existing parts as well as establish logical expressions controlling the usage and applicability of these options.

[Generating a Product Variant](#)

In Windchill 9.0, users can create a new product variation with a specific set of options from a generic product platform.

[Specifying the Options for a Product Variation](#)

Windchill 9.0 provides the capability for users to select the options they desire for a product variation from the set of available options for a generic product platform, using an easy-to-use configuration wizard.

Product What's New

Product Structure and BOM Management

[BOM Notes](#)

Windchill 9.0 provides the ability to capture design note information in the Windchill database and associate it with an assembly product structure.

[Browser-Based Product Structure Editing](#)

The browser-based product structure editing capability in Windchill Release 9.0 enables users to quickly create or update a single-level product structure with new or existing parts.

[Product Structure Explorer Find in Tree](#)

You can use the new Find in Tree capability of the PSE to locate specific parts that may be multiple levels deep within a large Windchill product structure. Two forms of the Find in Tree function make it possible to address both simple and more powerful searches.

[Product Structure Explorer Flexible Column Display](#)

The Windchill 9.0 Product Structure Explorer (PSE) allows you to define and order the columns to display in tables. The display you define becomes the default each time the PSE is launched. Administrators can also define PSE column displays for use by the entire organization.

[Product Structure Explorer Related-Data Indicators](#)

The Windchill 9.0 Product Structure Explorer (PSE) displays icons to indicate the presence of related data. These icons can also act as links to the related information.

[Product Structure Explorer Validation Tool](#)

Validation provides the ability to check whether the changes made in a draft session of the PSE can be successfully applied. As part of the validation, the PSE displays any failures and corrective actions needed.

[Product Structure Explorer, Improved Occurrence Display](#)

In Windchill 9.0, the PSE provides you with the ability to select and expand a subassembly in the product structure tree to show occurrence-specific information. Previously, you had to select a separate Occurrences tab to view all occurrences for all child parts.

[Reference Designator Improvements](#)

Windchill 9.0 provides the ability to assign and display reference designators for product structure occurrences individually or by using ranges.

Product What's New

Product Structures, BOMs, and Configurations

[Alternate and Substitute Improvements](#)

The Windchill PDMLink capabilities for alternates and substitutes have been improved, making information about replacement parts easier to create, view, and retrieve.

[Baseline Improvements](#)

Several improvements have been made in the creation and editing of managed baselines in Windchill 9.0. This includes dependency collection and multi-object select when creating a new baseline object.

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Project Linking and Tiering

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The new Project linking and tiering capabilities introduce a powerful approach to manage large company projects. With this new capability, key information from multiple projects may be linked to share status, ease navigation and communicate overall project structure.

Product What's New

Project Management and Execution

[Add to Project Preference Options](#)

Streamline the steps to share related Product information to a Project. When adding information from a Product to a Project context, there are new preferences for default objects to be added to the collection list.

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Purge/Archive/Delete

[Archive and Purge Scheduling and Query Management](#)

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This new capability allows users to delete the latest iteration of the latest version for a CAD document, document, and part.

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You can use the new replication capabilities to improve system performance for remote users and external partners. In addition, these capabilities reduce replication setup and administrative maintenance tasks.

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This new capability allows users to delete the latest iteration of the latest version for a CAD document, document, and part.

Product What's New

Reporting

[Windchill Business Reporting](#)

Windchill Business Reporting is a new reporting framework that uses industry leading Cognos 8 Business Intelligence, to increase information visibility and access for business decision makers and to help reduce reporting costs by providing users with the capability to quickly develop and distribute robust reports using your Windchill data.

Product What's New

Search

[Windchill Index Search](#)

Search has been improved with the addition of Windchill Index Search. This search engine includes features such as spell checking, content teasers, and search results sorted by relevancy.

Product What's New

Shop Floor

[Dynamically Generated Work Instructions](#)

With the release of Windchill MPMLink, PTC now supports the dynamic generation of work instructions. Work instructions include the process plan definition, associated documents like 3D visual aids and a record of Windchill change history. Work instructions are available for shop floor operators through a simple web browser.

Product What's New

Software Configuration Management

[Interfacing With Multiple IBM Rational ClearCase Environments](#)

The Windchill Integration for IBM Rational ClearCase in Windchill Release 9.0 provides the ability to communicate with multiple ClearCase environments.

Product What's New

Sourcing

[Part Request](#)

You can initiate a part request process when a new part is needed. This request will be routed to various stakeholders for additional information and approvals.

Product What's New

Sourcing, Classification, and Search

[Classification of Parts](#)

Parts can be classified using the HTML part create action in Windchill Release 9.0. Classification can also be limited to leaf or terminal nodes.

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Product What's New

Structured Content Management

[Add to Workspace and Check-Out Options](#)

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

[Additional File Type Support for Windchill Workgroup Managers](#)

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

[Administrative Control of End User Objects](#)

This capability allows for an Administrator to cancel the checkout of another end user's data, including from the workspace.

[Arbortext Advanced Print Publisher Support](#)

Windchill 9.0 introduces the support for the Arbortext Advanced Print Publisher as an option for automated publishing of high quality, layout-intensive documents. The Arbortext Advanced Print Publisher can be installed with Windchill PDMLink, Windchill ProjectLink or Arbortext Content Manager.

[Attribute Handling for Windchill Workgroup Managers](#)

The format of the Windchill attributes which was added by the Workgroup Managers to the CAD file has changed in Windchill 9.0.

[Checkout on the Fly](#)

Windchill 9.0 Workgroup Manager users will be able to "checkout on the fly" any CAD models they've locally modified.

[Deviations and Waivers](#)

Deviations or waivers can be documented against the released configuration of a product. The supplied deviation/waiver approval process or a site-specific deviation/waiver process can be used.

[Drawing Reference Links](#)

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

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The Windchill Workgroup Managers in Windchill 9.0 have the Rename ability for all supported CAD systems. Note: Rename ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

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The Windchill Workgroup Managers in Windchill 9.0 have the Save As ability for all supported CAD systems. Note: Save As ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

[Improved handling of CATIA V5 Design Tables](#)

The Windchill Workgroup Manager for CATIA V5 in Windchill 9.0 offers improved handling of CATIA V5 Design Tables in the Windchill system.

[Integral Windchill ProjectLink with Arbortext Content Manager](#)

Windchill ProjectLink with Arbortext Content Manager enables organizations to easily execute projects and inspires collaboration among members of an extended content-creation team.

[Interfacing With Multiple IBM Rational ClearCase Environments](#)

The Windchill Integration for IBM Rational ClearCase in Windchill Release 9.0 provides the ability to communicate with multiple ClearCase environments.

[Inventor iPart Factory Support](#)

In Windchill 9.0, the handling of iPart Factories is improved for the Windchill Workgroup Manager of Autodesk Inventor.

[Model Structure Report Improvements](#)

The Model Structure Report for viewing CAD relationships has been improved in Windchill 9.0 to provide consistent capabilities across all Windchill-based products, including new capabilities allowing for the editing of attributes associated with a structure.

[Multiple CAD Application Interaction](#)

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

[Native CAD icons for AutoCAD and Autodesk Inventor files managed in Windchill](#)

Windchill 9.0 users will be able to identify AutoCAD and Autodesk Inventor files managed in Windchill with the same icons used for those file types in the native CAD tools, respectively.

[Non-file-based Attributes](#)

In Windchill 9.0, when creating attributes for the CAD Document type, you can specify whether an attribute is propagated to the CAD file or is only visible in Windchill.

[NX Part Family Support in Windchill](#)

The Windchill Workgroup Manager for NX in Windchill 9.0 has been enhanced to include support for the NX Part Families.

[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[ProjectLink Support](#)

Windchill 9.0 introduces support for the management of Arbortext dynamic documents in Windchill ProjectLink.

[Rule/Incremental Add to Workspace and Checkout Options](#)

Windchill 9.0 presents a new user interface for Add to Workspace and Checkout that provides either rule-based or incremental options for proceeding through these processes.

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Updates to Document Management](#)

Windchill 9.0 includes usability updates to Windchill document management and Windchill Desktop Integration.

[Windchill Server Registration](#)

The Windchill 9.0 Workgroup Manager allows users to easily register and interact with multiple Windchill servers from the same Windchill Workgroup Manager application.

[Workspace Preferences](#)

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

[Workspace Save As](#)

With Windchill 9.0 Save As, or copy, is available in the workspace. The new workspace Save As is cognizant of CAD file relationships and includes the Update Parent capability for Pro/ENGINEER data.

[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

Subscription & Notification

[Subscription and Notification](#)

Windchill Release 9.0 offers more powerful and flexible subscription and notification capabilities.

Product What's New

System Monitoring

[System Monitoring and Management](#)

Windchill Release 9.0 provides more effective troubleshooting and issue resolution, as well as periodic testing and background system monitoring capabilities through incorporation of the industry standard Log4j and JMX frameworks.

Product What's New

Usability

[General Usability](#)

Windchill 9.0 includes many usability features that improve the user's experience and throughput.

[Object Information Pages](#)

Windchill 9.0 uses a common redesigned and streamlined object information page.

[Role Based User Interface](#)

The role-based configuration capability in Windchill 9.0 allows administrators to configure the user interface to fit a user's profile, tasks, and information needs.

[Table Common Component](#)

Windchill makes extensive use of tables. In Windchill 9.0 a new table component provides many usability enhancements.

Product What's New

Visualization

[Breakthrough Performance](#)

ProductView Lite 9.0 has been re-architected for superlative levels of performance. The new architecture is scalable for visualization of ultra light to ultra large datasets.

[New file format "PVS" introduced](#)

With this release, a new file format "PVS" is introduced. "PVS" file is similar to "ED" file and contains structure and metadata information.

[ProductView Lite User Experience](#)

ProductView Lite User Interface is totally re-designed with a strong focus on usability and is aligned with Microsoft Office 2007 look and feel

Product What's New

Workflow/Teams/Lifecycles

[Adobe LiveCycle Forms Support for Workflow Tasks](#)

Windchill Release 9.0 will support the association of Adobe LiveCycle Forms with workflow activities. Through the use of Adobe Forms, Administrators gain precise control over the presentation and validation of workflow task pages. As a result, the forms presented to users are familiar, and their work can be saved off-line and submitted when ready.

[Workflow Assignment Management](#)

Improve your ability to manage and collaborate on your work. Worklist pages, workflow process and task details pages in Windchill Release 9.0 have more configurable information. Workflow notifications can send e-mail attachments, and can be sent to external (non-registered) participants.

Product What's New

Change & Configuration Management

[Alternate and Substitute Improvements](#)

The Windchill PDMLink capabilities for alternates and substitutes have been improved, making information about replacement parts easier to create, view, and retrieve.

[BOM Notes](#)

Windchill 9.0 provides the ability to capture design note information in the Windchill database and associate it with an assembly product structure.

[Browser-Based Product Structure Editing](#)

The browser-based product structure editing capability in Windchill Release 9.0 enables users to quickly create or update a single-level product structure with new or existing parts.

[Change Management Usability Improvements](#)

The Change Management capabilities in Windchill 9.0 have been significantly expanded and productivity improvements have been made to manage your change tasks and process more effectively. The user interface for creating and editing the change management objects, performing workflow tasks associated with the change management process, and displaying the information associated with the change management objects has been completely redesigned for Windchill Release 9.0. Numerous enhancement requests and software defects have been resolved as a result of the new user interface.

[Changes Without Change Requests](#)

Change notices can be planned, implemented, and released without the requirement for an associated change request.

[Configuration and Instance Usability Improvements](#)

The user interfaces for the creation of part configurations and instances have been enhanced and streamlined. All operations for creating As-Built product structures have been consolidated into web pages, making the flow of operations more intuitive and efficient.

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The unique identification of product information is a fundamental capability of a global (distributed) engineering environment. In this context, the globally unique identification of product information consists of an organization identifier, a proprietary object identifier, and possibly a revision label. Windchill 9.0 provides improved configuration of object identification and revision scheme policies in support of industry standards and company practices.

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The Windchill Workgroup Manager for NX in Windchill 9.0 has been enhanced to include support for the NX Part Families.

[Open CAD models in Native CAD applications from the Windchill system](#)

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

[Part Request](#)

You can initiate a part request process when a new part is needed. This request will be routed to various stakeholders for additional information and approvals.

[Preferences Managed in Windchill](#)

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

[Product Structure Explorer Find in Tree](#)

You can use the new Find in Tree capability of the PSE to locate specific parts that may be multiple levels deep within a large Windchill product structure. Two forms of the Find in Tree function make it possible to address both simple and more powerful searches.

[Product Structure Explorer Flexible Column Display](#)

The Windchill 9.0 Product Structure Explorer (PSE) allows you to define and order the columns to display in tables. The display you define becomes the default each time the PSE is launched. Administrators can also define PSE column displays for use by the entire organization.

[Product Structure Explorer Related-Data Indicators](#)

The Windchill 9.0 Product Structure Explorer (PSE) displays icons to indicate the presence of related data. These icons can also act as links to the related information.

[Product Structure Explorer Validation Tool](#)

Validation provides the ability to check whether the changes made in a draft session of the PSE can be successfully applied. As part of the validation, the PSE displays any failures and corrective actions needed.

[Product Structure Explorer, Improved Occurrence Display](#)

In Windchill 9.0, the PSE provides you with the ability to select and expand a subassembly in the product structure tree to show occurrence-specific information. Previously, you had to select a separate Occurrences tab to view all occurrences for all child parts.

[ProjectLink Support](#)

Windchill 9.0 introduces support for the management of Arbortext dynamic documents in Windchill ProjectLink.

[Reference Designator Improvements](#)

Windchill 9.0 provides the ability to assign and display reference designators for product structure occurrences individually or by using ranges.

[Rule/Incremental Add to Workspace and Checkout Options](#)

Windchill 9.0 presents a new user interface for Add to Workspace and Checkout that provides either rule-based or incremental options for proceeding through these processes.

[Support for Routed Systems Designer](#)

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

[Tighter Integration with CAD Application User Interface](#)

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

[Updates to Document Management](#)

Windchill 9.0 includes usability updates to Windchill document management and Windchill Desktop Integration.

[Windchill Index Search](#)

Search has been improved with the addition of Windchill Index Search. This search engine includes features such as spell checking, content teasers, and search results sorted by

relevancy.

[Windchill Server Registration](#)

The Windchill 9.0 Workgroup Manager allows users to easily register and interact with multiple Windchill servers from the same Windchill Workgroup Manager application.

[Workspace Import and Export](#)

Pro/ENGINEER CAD files can be imported to and exported from a workspace within the embedded browser, without retrieving them into a Pro/ENGINEER session.

[Workspace Preferences](#)

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

[Workspace Save As](#)

With Windchill 9.0 Save As, or copy, is available in the workspace. The new workspace Save As is cognizant of CAD file relationships and includes the Update Parent capability for Pro/ENGINEER data.

[Workspace Status Icons for Windchill Workgroup Managers](#)

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product What's New

Manufacturing Process Management

[Associative eBOM-mBOM Transformation](#)

With the release of Windchill MPMLink, PTC has extended the Windchill view mechanism to support associative eBOM-mBOM transformations, which allows for the transformation of engineering bills of materials (eBOM) into multiple manufacturing bills of materials (mBOM), while keeping associativity using traceability links.

[BOM Notes](#)

Windchill 9.0 provides the ability to capture design note information in the Windchill database and associate it with an assembly product structure.

[Change Management Usability Improvements](#)

The Change Management capabilities in Windchill 9.0 have been significantly expanded and productivity improvements have been made to manage your change tasks and process more effectively. The user interface for creating and editing the change management objects, performing workflow tasks associated with the change management process, and displaying the information associated with the change management objects has been completely redesigned for Windchill Release 9.0. Numerous enhancement requests and software defects have been resolved as a result of the new user interface.

[Changes Without Change Requests](#)

Change notices can be planned, implemented, and released without the requirement for an associated change request.

[Deviations and Waivers](#)

Deviations or waivers can be documented against the released configuration of a product. The supplied deviation/waiver approval process or a site-specific deviation/waiver process can be used.

[Digital Definition of Process Plans](#)

With the release of Windchill MPMLink, PTC now supports the digital definition of plant-specific process plans. Process plans are the sequences and operations that define how a part is manufactured, assembled, reworked, repaired, maintained, or inspected, and contain associative links to the mBOMs and manufacturing resources.

[Dynamically Generated Work Instructions](#)

With the release of Windchill MPMLink, PTC now supports the dynamic generation of work instructions. Work instructions include the process plan definition, associated documents

like 3D visual aids and a record of Windchill change history. Work instructions are available for shop floor operators through a simple web browser.

[Manage Libraries of Resources and Manufacturing Standards](#)

With the release of Windchill MPMLink, users can define and manage resource libraries (plants, work centers, tooling, process materials, and skills) and manufacturing standards libraries (manufacturing capabilities and standard procedures).

[Managing Change Management Object Modifications](#)

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

[Object Identification and Revision Scheme Policies](#)

The unique identification of product information is a fundamental capability of a global (distributed) engineering environment. In this context, the globally unique identification of product information consists of an organization identifier, a proprietary object identifier, and possibly a revision label. Windchill 9.0 provides improved configuration of object identification and revision scheme policies in support of industry standards and company practices.

[Product Structure Explorer Find in Tree](#)

You can use the new Find in Tree capability of the PSE to locate specific parts that may be multiple levels deep within a large Windchill product structure. Two forms of the Find in Tree function make it possible to address both simple and more powerful searches.

[Product Structure Explorer Flexible Column Display](#)

The Windchill 9.0 Product Structure Explorer (PSE) allows you to define and order the columns to display in tables. The display you define becomes the default each time the PSE is launched. Administrators can also define PSE column displays for use by the entire organization.

[Product Structure Explorer Related-Data Indicators](#)

The Windchill 9.0 Product Structure Explorer (PSE) displays icons to indicate the presence of related data. These icons can also act as links to the related information.

[Product Structure Explorer, Improved Occurrence Display](#)

In Windchill 9.0, the PSE provides you with the ability to select and expand a subassembly in the product structure tree to show occurrence-specific information. Previously, you had to select a separate Occurrences tab to view all occurrences for all child parts.

[Reference Designator Improvements](#)

Windchill 9.0 provides the ability to assign and display reference designators for product structure occurrences individually or by using ranges.

[Windchill Index Search](#)

Search has been improved with the addition of Windchill Index Search. This search engine includes features such as spell checking, content teasers, and search results sorted by relevancy.

Product What's New

New Product Introduction

[Change Management Usability Improvements](#)

The Change Management capabilities in Windchill 9.0 have been significantly expanded and productivity improvements have been made to manage your change tasks and process more effectively. The user interface for creating and editing the change management objects, performing workflow tasks associated with the change management process, and displaying the information associated with the change management objects has been completely redesigned for Windchill Release 9.0. Numerous enhancement requests and software defects have been resolved as a result of the new user interface.

[Changes Without Change Requests](#)

Change notices can be planned, implemented, and released without the requirement for an associated change request.

[Managing Change Management Object Modifications](#)

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

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The unique identification of product information is a fundamental capability of a global (distributed) engineering environment. In this context, the globally unique identification of product information consists of an organization identifier, a proprietary object identifier, and possibly a revision label. Windchill 9.0 provides improved configuration of object identification and revision scheme policies in support of industry standards and company practices.

Product What's New

Technical Publications

[Arbortext Advanced Print Publisher Support](#)

Windchill 9.0 introduces the support for the Arbortext Advanced Print Publisher as an option for automated publishing of high quality, layout-intensive documents. The Arbortext Advanced Print Publisher can be installed with Windchill PDMLink, Windchill ProjectLink or Arbortext Content Manager.

[Integral Windchill ProjectLink with Arbortext Content Manager](#)

Windchill ProjectLink with Arbortext Content Manager enables organizations to easily execute projects and inspires collaboration among members of an extended content-creation team.

[ProjectLink Support](#)

Windchill 9.0 introduces support for the management of Arbortext dynamic documents in Windchill ProjectLink.

[Updates to Document Management](#)

Windchill 9.0 includes usability updates to Windchill document management and Windchill Desktop Integration.

[Windchill Index Search](#)

Search has been improved with the addition of Windchill Index Search. This search engine includes features such as spell checking, content teasers, and search results sorted by relevancy.

Product What's New

Variant Design & Generation

[Creating a Generic Product Platform](#)

In Windchill 9.0 users have the capability to create a product structure with optional elements comprised of new or existing parts as well as establish logical expressions controlling the usage and applicability of these options.

[Generating a Product Variant](#)

In Windchill 9.0, users can create a new product variation with a specific set of options from a generic product platform.

[Product Structure Explorer Find in Tree](#)

You can use the new Find in Tree capability of the PSE to locate specific parts that may be multiple levels deep within a large Windchill product structure. Two forms of the Find in Tree function make it possible to address both simple and more powerful searches.

[Product Structure Explorer Related-Data Indicators](#)

The Windchill 9.0 Product Structure Explorer (PSE) displays icons to indicate the presence of related data. These icons can also act as links to the related information.

[Product Structure Explorer, Improved Occurrence Display](#)

In Windchill 9.0, the PSE provides you with the ability to select and expand a subassembly in the product structure tree to show occurrence-specific information. Previously, you had to select a separate Occurrences tab to view all occurrences for all child parts.

[Specifying the Options for a Product Variation](#)

Windchill 9.0 provides the capability for users to select the options they desire for a product variation from the set of available options for a generic product platform, using an easy-to-use configuration wizard.

[Windchill Index Search](#)

Search has been improved with the addition of Windchill Index Search. This search engine includes features such as spell checking, content teasers, and search results sorted by relevancy.

Product What's New

9.0 Replication

You can use the new replication capabilities to improve system performance for remote users and external partners. In addition, these capabilities reduce replication setup and administrative maintenance tasks.

Product Information

| | |
|---------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Performance, Import/Export, and Replication Replication |
| User Interface Location | |
| Processes and Initiatives | Design Outsourcing |

Benefits and Description

The new replication capabilities include the following:

- **A New Name: *File Server*** The new name for what was previously referred to as the *Windchill Content Cache Server* and informally referred to as the *lightweight replica server* or *lightweight cache server*.
- **Smart Replication**
 - **Ad-hoc Caching on Download** – Dynamically caches requested content on a File Server. The content is delivered to the user from the master server and also copied from the master server to the cache of the File Server.
 - **Predictive Content Caching** – Automatically replicates new iterations of content to the content cache server and continues to replicate for an administrator definable time period.
 - **User initiated replication** – A new role, Replication Manager, permits a user to initiate replication of content from the Search Results page.
- **Downloadable File Server**
A downloadable, easy-installing, easy-configuring, self-maintaining secure File Server for use by remote collaboration partners.
- **New Replication Schedule Administrator User Interface with Enhanced Rules**

- Same look and feel as the Purge Manager introduced in Release 8.0.
- Finer granularity rules reduce the total number of objects replicated and provide better performance.
- Replication by PDMLink, Product or Library folders, and ProjectLink.
- Organization level replication.

- **Request Redirect to Alternate Server**

When a user's preferred File Server is not available or the requested content is not there, the system attempts to deliver the content from a server that is in the closest proximity.

Product What's New

Administrative Control of End User Objects

This capability allows for an Administrator to cancel the checkout of another end user's data, including from the workspace.

Product Information

| | |
|----------------------------------|--|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Arbortext Document Management Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

Invariably the situation arises where a user has critical data checked out that is needed by another user. When this user is nowhere to be found (for example, out of the office, left the company), it is critical that someone have the ability to cancel this check out in order to keep work moving along. In Windchill 9.0, an administrator at the product, project, or library level has the ability to undo the checkout of another user's data. This can be accomplished by either cancelling the checkout of individual objects or through the deletion of a user's entire workspace.

Product What's New

Archive and Purge Scheduling and Query Management

Archiving and Purging can occur automatically at regularly scheduled intervals. Archive and purge collection rules can be edited, copied, merged, exported, and imported.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill Archive Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Performance, Import/Export, and Replication Purge/Archive/Delete |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

Archiving and/or purging unnecessary, unwanted, and obsolete data in your Windchill system can occur automatically by scheduling recurring archive and/or purge jobs. You can specify, as well as update, how frequently and what time of day you want to run archive and purge jobs. Refining, expanding, and simplifying your archiving and purging plan is easier in this release because you can now edit, rename, and copy collection rules as well as merge two collection rules together. Copying an archive and purge rule from a test system to a production system is simplified using the collection rule export and import wizards.

Note: Purge is included with Windchill PDMLink, Windchill ProjectLink, Arbortext Content Manager, and Pro/INTRALINK. The optional Windchill Archive Module adds the ability to archive purged data and later restore archives back to your Windchill system.

Product What's New

Baseline Improvements

Several improvements have been made in the creation and editing of managed baselines in Windchill 9.0. This includes dependency collection and multi-object select when creating a new baseline object.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Configuration management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

With Windchill 9.0, the creation of a managed baseline has been made more efficient. This includes the ability to use multi-object select with the Add to Baseline action. The user then has the choice to add the selected objects to a pre-existing baseline, or to create a new one. Also, additional collection operations can be performed, including dependency processing and configuration setting, among others. The editing of existing baselines has been further improved to include the ability to add additional objects as well as easily exchange one version of an object for another. Pro/INTRALINK 3.x users will recognize the ability to identify a top object, and define baselines as protected/unprotected.

Product What's New

Delete Latest Iteration

This new capability allows users to delete the latest iteration of the latest version for a CAD document, document, and part.

Product Information

| | |
|----------------------------------|--|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Import/Export Purge/Archive/Delete Replication |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

If a user accidentally checks in a new iteration of a document, he or she can now delete the latest iteration for a CAD document, document, and part. Selecting an object and choosing delete displays three options: 1) delete single revision, 2) delete all the revisions, or 3) delete latest iteration. Users also have the option to run the delete action in the background. If another user has the iteration to be deleted in their workspace – an overridable conflict allows you to remove the iteration of the object from any and all workspaces.

Product What's New

Editing Family Tables Attributes

Windchill 9.0 further expands the capability to modify object attributes in the workspace to include Family Table members.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

Previously, the capability to modify attributes did not include Family Table CAD Documents. In Windchill 9.0, you can modify both file-based and non-file-based attributes of a Family Table member from the workspace. For example, if a designated parameter of a generic model was added as a column to the Family Table, you can modify the value for each Family Table instance directly in Windchill, eliminating the need to open the model in Pro/ENGINEER to perform such changes. The next time the model is accessed the attribute changes will be propagated to the file.

Product What's New

Enhanced Check-out of Non-latest

Windchill 9.0 provides the user with the ability to check out to their workspace a non-latest iteration of an object.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

Checkout of non-latest is true to its name. Often the changes to a design are not going to be perfectly sequential. It might make sense to start a design change from an earlier (non-latest) iteration. Windchill 9.0 allows a user to confidently select a non-latest iteration for check-out. Some of the highlights of this capability include:

- Presentation of an overridable conflict to the user to provide confirmation of the user's intent
- Inclusion of precise content and metadata for the selected version, including accurate representation in the workspace with out-of-date information
- Iteration history displays the prior iteration from which any change originated
- Available for CAD documents, documents, and parts

Product What's New

Finding Objects in Your Workspace

Windchill 9.0 introduces two new features to the workspace to aid users in navigating the contents of their workspace – Find and Featured objects display.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK |
| PTC Support Release | 9.0 |
| Product Functional Area | Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

There are circumstances where a user needs to quickly find one or more objects listed in their workspace, which may contain hundreds, if not thousands of objects. Creating a table view with a custom filter is an inefficient use of their time. In Windchill 9.0, the Find in Table capability in the workspace toolbar brings browser-like find capability to the workspace table, allowing users to search for objects based on a text string.

An additional feature for sorting through a workspace's content is the introduction of the Featured Objects display. This feature provides a built-in display filter that allows a user to quickly toggle between their current workspace table view and a more focused view (showing "featured" objects only). This out of the box filter narrows down the table view to focus on only those objects that were initially selected, checked-out, modified, or new.

Product What's New

General Usability

Windchill 9.0 includes many usability features that improve the user's experience and throughput.

Product Information

| | |
|----------------------------------|--|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Usability |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

Many usability enhancements are incorporated into Windchill 9.0. These enhancements improve the end user experience, streamline tasks, and result in greater user throughput.

Usability improvements include:

- A folder browser similar to that in Windows Explorer, with left- and right-hand panes.
- An HTML product structure editor.
- Common components so that common actions are performed in exactly the same way throughout the system. For example:
 - There is one consistent method of creating attachments to a document or change object, throughout Windchill PDMLink and Windchill ProjectLink.
 - There is a common Revise action for documents, parts, and change objects.
- Table filtering allows users to create their own views for tables, based on criteria they specify, so that they can easily see the subset of the data that is relevant to their tasks.
- Reduction in the use of applets.
- Minimizing of page sizes and partial page refreshes to improve performance and reduce network traffic.
- Extensive use of the Windchill clipboard to create relationships via copy/paste operations.

- Extensive use of the Windchill collector to find and work with related objects.
- Date pickers for date attributes.

Product What's New

Model Structure Report Improvements

The Model Structure Report for viewing CAD relationships has been improved in Windchill 9.0 to provide consistent capabilities across all Windchill-based products, including new capabilities allowing for the editing of attributes associated with a structure.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

The release of Windchill 9.0 brings improvements to the model structure report, including its availability from within ProjectLink. The greatest improvement is the introduction of the ability to modify attributes on the uses links between objects (when accessing the structure report from the workspace), including the ability to update the system parameter "Component Name" which, in the case of Pro/ENGINEER, is tied to system parameter "FEAT_NAME". This improvement allows for additional modifications to be made related to a model's relationships, without having to retrieve the information in the CAD application.

Product What's New

New Access Control Permissions and New Access Control User Interface

Windchill Release 9.0 provides more granular control over user permissions to objects, and better visibility into what permissions have been granted to which users for a selected object.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Access Control Infrastructure |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

The new access control permissions allow users more granular control over move operations, changes of identity, changes of lifecycle state, and access to content versus metadata.

The new access control user interface will be optionally available across all solutions, and will enable privileged users to view and manage user, group, or role permissions to individual objects. With this new interface, a privileged user will be able to easily determine:

- What permissions a given user, group, or role has to an object
- Which users, groups, and roles have a given permission (or permissions) to an object

Product What's New

Non-file-based Attributes

In Windchill 9.0, when creating attributes for the CAD Document type, you can specify whether an attribute is propagated to the CAD file or is only visible in Windchill.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

When adding attributes to the CAD Document type definition, you can specify whether the value of an attribute is accessible and visible only in Windchill (non-file-base attribute), or if it is propagated to a Pro/ENGINEER file (file-based attribute) and its corresponding designated parameter. The ability to create file-based or non-file-based attributes allows the administrator to regulate what type of information will be shared with the Pro/ENGINEER file. Defining attributes as non-file-based may be done for security purposes, for example, if you do not want to expose confidential information when sharing CAD data with a supplier.

Product What's New

Object Information Pages

Windchill 9.0 uses a common redesigned and streamlined object information page.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Usability |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

A common object information page is shared by parts, documents, problem reports, change requests, and other object types in Windchill 9.0. The new common component streamlines page layout and improves performance.

The new common information page includes the following improvements:

- The vertical third-level navigation bar is replaced with a horizontal strip of submenus. This provides more horizontal space on the page and reduces clutter.
- Access to links and actions is calculated on demand, thus improving performance. That is, when navigating to a page, the user does not have to wait for the system to complete calculations of access control to each menu item. This will be done on demand, when and if the user selects an action from the Actions menu.
- When the user selects a different third-level navigation, only that part of the page is replaced; in previous releases the full page was replaced. This reduces network load and improves client rendering time.
- Information pages are consistently divided into a title area, an attributes panel, a visualization area, a filter area, and a content area.

Product What's New

Object Initialization Rules

Windchill Release 9.0 provides improvements to object initialization rules that reduce the need for customizations to implement and enforce customer-specific business rules.

Product Information

| | |
|----------------------------------|--|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Configuration |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

The object initialization rule enhancements in Windchill 9.0 allow customers to easily incorporate their best practices and company standards for object identification.

For example, when any object (for example, a part) is created, an administrator can specify that one of the following applies:

- The system assigns a value based on a preconfigured company numbering rule
- The user is required to enter a number
- The user is allowed to enter a number, and the system will assign one if it is not entered by the user.

As another example, for a given product, an administrator can specify that the user must select from a product-specific list of life-cycle templates, where one is identified as the default that the system should use. Alternatively, the system may select the appropriate life-cycle template (or team template) based on attribute values specified by the user.

With Windchill 9.0, administrators can also add comparison or branching logic to the object initialization rules. This allows creation of rules such as:

If the user sets the value of attribute Plant to any of Michigan, Ohio, or Illinois then assign the Team called 'Midwest CCB' to the object being created

Product What's New

PTC Solution Installer

The new PTC Solution Installer guides administrators through the process of installing all the Windchill products, modules, and platform components.

Product Information

| | |
|----------------------------------|--|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Installation and Administration |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

The PTC Solution Installer is a single installation program that removes the necessity for the user to determine the installation order of the CDs and eliminates the redundant entry of information. The PSI allows the user to select the Windchill products and platform components that will be used for the installation and then prompts the user for only information required to install the selections. After the user has entered all the information required to perform the installation, the PSI will install all the products that the user has selected, eliminating the need for the end user to interact with each installer.

Product What's New

Rule/Incremental Add to Workspace and Checkout Options

Windchill 9.0 presents a new user interface for Add to Workspace and Checkout that provides either rule-based or incremental options for proceeding through these processes.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

The introduction of Rule and Incremental options for the purpose of adding or checking out objects to the workspace is intended to streamline the process for certain scenarios and user types. The Rule option has the novice user in mind. The Rule tab uses default settings without burdening the user with too many decisions. For the more advanced users, perhaps dealing with more complex data sets, that desire more control over the processing of objects they intend to add to their workspace, the Incremental tab of the UI provides visual feedback based on how users configure the collection of objects they intend to add/checkout to their workspace prior to completing the operation.

Product What's New

Security Auditing and License Usage Reporting

The Security Auditing capabilities for Windchill have been greatly enhanced for version 9.0 to include more detailed audit logs, including an ability to report on both unique user accesses and concurrent user counts over a given time period.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Installation and Administration |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

Security Auditing in Windchill 9.0 records far more information about each entry in the log, including more user details such as user name, user identifier, and IP address, as well as more object details such as version, context, and lifecycle state in addition to name, number, and CAGE code. These logs may be archived as XML and purged from the system as needed.

The Security Audit Logs in 9.0 are also configured by default to record Login and Logout events. This additional logging enables an administrator to generate the list of unique users who have accessed the system in a given time period, or the number of users who are currently active or were active over a given time period.

The new audit reporting interface also combines 10 pre-defined reports into a single, flexible interface which enable administrators to generate reports which contain exactly the information they need.

Product What's New

Subscription and Notification

Windchill Release 9.0 offers more powerful and flexible subscription and notification capabilities.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Subscription & Notification |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

In Windchill Release 9.0, administrators have more control over the appearance of system-generated e-mail notifications, and users have more control over how their messages are received through new scheduled delivery and digest capabilities.

Subscribing to objects has never been easier. Windchill Release 9.0 gives users the ability to subscribe to multiple objects at the same time, through multi-selection or through folder membership. Users may subscribe to objects on behalf of other users or groups, and if a group's membership changes, the distribution list for the subscription will automatically be updated.

Product What's New

Support for Routed Systems Designer

The Windchill Workgroup Manager for ECAD in Windchill Release 9.0 has been enhanced to include support for the Routed Systems Designer application.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for ECAD Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | ECAD Data Management Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill Release 9.0, the Windchill Workgroup Manager for ECAD supports the Routed Systems Designer application. Users can check their schematic wiring diagrams into and out of the Windchill system. The integration of Routed Systems Designer into the Workgroup Manager for ECAD application also provides the following capabilities:

- Ability to upload and subsequently view any HPGL files generated from the schematic data
- Ability to package the entire schematic and upload it into Windchill
- Ability to auto-attach any related files during the check-in process
- Ability to execute and interact with any user-specified scripts

Product What's New

Support for SQL Server 2005

Starting with 8.0 M040, and continuing with 9.0, Windchill now supports the use of Microsoft SQL Server 2005 for its database. The Workgroup, Standard, and Enterprise editions of SQL Server are all supported.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Databases Infrastructure |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

With Windchill, customers now have the option to choose from two industry leading database solutions. Windchill on SQL Server provides another secure, scalable, high-performance PLM configuration to meet your company's needs.

Data migration between Oracle and SQL Server installations of Windchill is not currently supported, but may be supported in a future release.

Product What's New

System Monitoring and Management

Windchill Release 9.0 provides more effective troubleshooting and issue resolution, as well as periodic testing and background system monitoring capabilities through incorporation of the industry standard Log4j and JMX frameworks.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK |
| PTC Support Release | 9.0 |
| Product Functional Area | System Monitoring |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

- JMX offers visibility into the JVM “black box”. Using JMX framework, the system administrator can:
 - View parameter values, log files, and other system information in real time.
 - Change property values at runtime without restarting the system.
 - Send e-mail on demand, on schedule, or when a parameter threshold is exceeded.
 - Remotely manage every JVM in the cluster using a single console.
- Log4j logging framework enables logging at runtime without modifying the application source code. Using Log4j framework, the system administrator can:
 - Swap log files when they grow beyond a specified size.
 - Trace a user action through the system.
 - Configure the format and location of logging output dynamically.
 - Merge log files produced by different JVMs and different systems into a system-wide view.
 - Quickly identify messages in the logs that require attention.

Product What's New

Table Common Component

Windchill makes extensive use of tables. In Windchill 9.0 a new table component provides many usability enhancements.

Product Information

| | |
|----------------------------------|--|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Usability |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

In Windchill 9.0, a common table component is used throughout the product. It provides users with a consistent, configurable, and efficient mechanism for dealing with large amounts of data.

Windchill 9.0 tables include the following capabilities:

- A shortcut tool bar of actions. Users can configure whether or not labels should be displayed .
- A menu bar.
- Status columns that display applicable object status information.
- Select and shift-select operations for multi-row selections.
- The ability to sort on a column header with a mouse click.
- Configurations that allow users to specify the number of rows to show per page.
- The ability to switch between a paging display and an "All" display.
- Configurable views that allow users to display the subset of data that meets their specified selection and sorting criteria.
- Table-only refresh when the user selects a different table view. This improves performance by reducing client rendering time and minimizing network load.

Product What's New

Updates to Document Management

Windchill 9.0 includes usability updates to Windchill document management and Windchill Desktop Integration.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Document Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Design Outsourcing Detailed Design Technical Publications |

Benefits and Description

Release 9.0 includes a significant number of productivity and usability improvements to the document management and desktop integration features of Windchill, including:

- Use of common HTML user interface components throughout makes working with documents simpler and more consistent
- A streamlined wizard for creation of new documents
- Significant improvements to the creation and management of document attachments
- Expanded document content types (no content, a file or URL as content, or a reference to an external storage location as content) allowing visibility to, and lifecycle management of, any document in your company, including non-electronic documents
- User preferences to select the file upload and download mode (Browser, Java Applet or Desktop Integration)
- The Desktop Integration to Microsoft Office products has been updated to use the same common HTML components, thus making it consistent with the other document management features accessed through the browser
- A new Create Document Template wizard allows document templates to have

attachments

Product What's New

Web Services – Interoperability Compliance

Windchill's Web Services capabilities have been updated in Release 9.0 to be compliant with the latest Web Services – Interoperability (WS-I) standards.

Product Information

| | |
|----------------------------------|--|
| Product | Arbortext Content Manager Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Info*Engine Integrations |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

Windchill's comprehensive and flexible Web Services capabilities have been expanded and updated in Release 9.0 to be fully compliant with the latest Web Services – Interoperability (WS-I Basic Profile 1.1) standards.

Implementations based on the integration capabilities of earlier Windchill releases will continue to be supported.

Product What's New

Workspace Import and Export

Pro/ENGINEER CAD files can be imported to and exported from a workspace within the embedded browser, without retrieving them into a Pro/ENGINEER session.

Product Information

| | |
|---------------------------|---|
| Product | Pro/INTRALINK Windchill MPMLink Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Performance, Import/Export, and Replication |
| User Interface Location | |
| Processes and Initiatives | Design Outsourcing Detailed Design |

Benefits and Description

Import to workspace and **Export from workspace** simplify and streamline copying of Pro/ENGINEER CAD files between your workspace and disk. Workspace import and export understand all Pro/ENGINEER file types and dependencies, as well as related drawings. Available from the workspace within the Pro/ENGINEER embedded browser, import and export can be done in one step or two. Export offers the user two tabs of options (**Simple** and **Advanced**), and Import is a two-step wizard. Export's **Simple** tab displays only basic configuration options, while the optional **Advanced** tab allows users to preview the list of objects with the option of selective exclusion.

Product What's New

Workspace Save As

With Windchill 9.0 Save As, or copy, is available in the workspace. The new workspace Save As is cognizant of CAD file relationships and includes the Update Parent capability for Pro/ENGINEER data.

Product Information

| | |
|----------------------------------|---|
| Product | Pro/INTRALINK Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Pro/ENGINEER Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

It is not atypical for a new design to be based upon a previous one. This requires the ability to easily create copies of CAD models while maintaining their necessary associativity. Moreover, in this process a designer may want to try different alternatives before committing to a particular design. Having Save As available in the workspace allows designers to make as many copies as they deem necessary, without having to commit to the database any unwanted data. The only copies committed to the database are those that are checked in. This Save As capability also includes the following features for Pro/ENGINEER data which provide additional flexibility when making copies:

- Update Parent – This allows a user to update any dependencies to existing parent objects in the workspace with the newly created “saved as” object(s).
- Replace – In some cases the new model already exists. Replace allows for swapping out a component with another pre-existing object from the database (in this case, constraints may require redefining in Pro/ENGINEER).

Workspace Save As allows for all of this without having to load the geometry into a CAD session.

Product What's New

Interfacing With Multiple IBM Rational ClearCase Environments

The Windchill Integration for IBM Rational ClearCase in Windchill Release 9.0 provides the ability to communicate with multiple ClearCase environments.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill Integration for Rational ClearCase Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Software Configuration Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

The Windchill Integration for IBM Rational ClearCase in Windchill 9.0 allows a single Windchill installation to communicate with multiple ClearCase registry servers.

The additional functionality provided in this release includes:

- Allowing site and organization administrators to create and set up multiple ClearCase adapters that might interface with different ClearCase registry servers.
- Allowing product/library/project administrators to set up a default ClearCase adapter for each project/library/product.
- Allowing product/library/project users to select available ClearCase adapters to browse and to select ClearCase files when creating attachments

Multimedia

Images



Interfacing
With Multiple
IBM Rational
ClearCase
Environments

Product What's New

Associative eBOM-mBOM Transformation

With the release of Windchill MPMLink, PTC has extended the Windchill view mechanism to support associative eBOM-mBOM transformations, which allows for the transformation of engineering bills of materials (eBOM) into multiple manufacturing bills of materials (mBOM), while keeping associativity using traceability links.

Product Information

| | |
|---------------------------|--|
| Product | Windchill MPMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Manufacturing Parts and BOMs |
| User Interface Location | |
| Processes and Initiatives | Manufacturing Process Management |

Benefits and Description

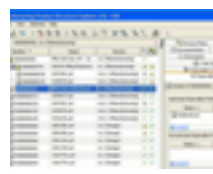
With the release of Windchill MPMLink, PTC now supports Manufacturing Process Management (MPM) processes with an integral solution where product, process, and resource data are all managed in a single system, without the need for data duplication. This enables concurrent and collaborative development of product designs and manufacturing processes, all supported by common Windchill services, such as change management, configuration, lifecycle, and access control.

One of the key critical capabilities of Windchill MPMLink is the ability to transform engineering bills of materials (eBOM) into multiple manufacturing bills of materials (mBOM), while keeping associativity using traceability links. The user now has the ability to:

- Visualize engineering designs using embedded 3D environments (ProductView).
- Create mBOMs and associate them to upstream eBOMs, using traceability links called equivalences and occurrences.
- Create manufacturing parts with or without equivalent engineering parts.
- Create mBOMs by selecting parts from the product structure or from the 3D mockup.
- Dynamically generate 3D representations of the mBOM.
- Display the allocation and consumption of parts between BOMs using visual indicators in the product structure.
- Display eBOM parts that have been associated to the mBOM within the mBOM product structure or the 3D mockup (and vice-versa).
- If required, revise manufacturing parts independently from engineering parts.

Multimedia

Images



Manufacturing
Product
Structure
Explorer

Product What's New

Deviations and Waivers

Deviations or waivers can be documented against the released configuration of a product. The supplied deviation/waiver approval process or a site-specific deviation/waiver process can be used.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill MPMLink Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Deviations and Waivers Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Manufacturing Process Management |

Benefits and Description

Windchill Release 9.0 introduces the deviation and waiver to document exceptions to the approved configuration (definition) of a product. The deviation is used to document the authorization and terms for departing from the approved configuration in the manufacturing build process. The waiver is used to document the authorization and terms for accepting parts that do not conform to released specifications. A typical deviation or waiver process consists of a set of activities associated with the authoring, approval, and management of the variance based on its approved definition. Approved deviations or waivers can be optionally incorporated as a regular change using your standard change management process.

Product What's New

Digital Definition of Process Plans

With the release of Windchill MPMLink, PTC now supports the digital definition of plant-specific process plans. Process plans are the sequences and operations that define how a part is manufactured, assembled, reworked, repaired, maintained, or inspected, and contain associative links to the mBOMs and manufacturing resources.

Product Information

| | |
|---------------------------|--|
| Product | Windchill MPMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Manufacturing Process Plans |
| User Interface Location | |
| Processes and Initiatives | Manufacturing Process Management |

Benefits and Description

With the release of Windchill MPMLink, PTC now supports Manufacturing Process Management (MPM) processes with an integral solution where product, process and resource data are all managed in a single system, without the need for data duplication. This enables concurrent and collaborative development of product designs and manufacturing processes, all supported by common Windchill services, such as change management, configuration, lifecycle, and access control.

One of the key critical capabilities of Windchill MPMLink is the ability to support the digital definition of process plans with associative links to mBOMs and manufacturing resources. Users now have the ability to:

- Define a process plan as a set of sequences and operations which in turn define how a part is manufactured, assembled, reworked, repaired, maintained, and/or inspected.
- Define process plan operations by allocating parts, resources, standard procedures, documents, and also time and cost breakdowns.
- Define alternate and parallel sequences of operations and sub-operations.
- Define sequence and operation constraints.
- Define and manage plant-specific process plans.
- Define alternate process plans for the same part or assembly.
- Select parts from the product structure or from the 3D mockup and allocate them to

process plan operations.

- Automatically build 3D sessions of the operation, using the operation's allocated parts and resources.
- View mBOM parts that have not been allocated to process plan operations.

Multimedia

Images



Process
Plan
Explorer

Product What's New

Dynamically Generated Work Instructions

With the release of Windchill MPMLink, PTC now supports the dynamic generation of work instructions. Work instructions include the process plan definition, associated documents like 3D visual aids and a record of Windchill change history. Work instructions are available for shop floor operators through a simple web browser.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill MPMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Manufacturing Process and Resource Management Shop Floor |
| User Interface Location | |
| Processes and Initiatives | Manufacturing Process Management |

Benefits and Description

With the release of Windchill MPMLink, PTC now supports Manufacturing Process Management (MPM) processes with an integral solution where product, process, and resource data are all managed in a single system, without the need for data duplication. This enables concurrent and collaborative development of product designs and manufacturing processes, all supported by common Windchill services, such as change management, configuration, lifecycle, and access control.

One of the key capabilities of Windchill MPMLink is the ability to dynamically generate work instructions from a process plan. Users now have the ability to:

- Use Windchill MPMLink to dynamically generate work instructions for a specific process plan. Work instructions include process plan information, operation descriptions, time breakdowns, parts and resource lists, associated documents, a display window, and change history.
- Use a web browser to access Windchill MPMLink work instructions from the shop floor.
- Use part, resource, and document hyperlinks to navigate from a work instruction to a Windchill details page.
- Click on the work instructions display window to open the representation in

ProductView and interact directly with the 3D information

Multimedia

Images



Work Instructions

Product What's New

Manage Libraries of Resources and Manufacturing Standards

With the release of Windchill MPMLink, users can define and manage resource libraries (plants, work centers, tooling, process materials, and skills) and manufacturing standards libraries (manufacturing capabilities and standard procedures).

Product Information

| | |
|----------------------------------|--|
| Product | Windchill MPMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Manufacturing Libraries Manufacturing Resource Management |
| User Interface Location | |
| Processes and Initiatives | Manufacturing Process Management |

Benefits and Description

With the release of Windchill MPMLink, PTC now supports Manufacturing Process Management (MPM) processes with an integral solution where product, process and resource data are all managed in a single system, without the need for data duplication. This enables concurrent and collaborative development of product designs and manufacturing processes, all supported by common Windchill services, such as change management, configuration, lifecycle, and access control.

One of the key capabilities of Windchill MPMLink is the ability to manage resource libraries and manufacturing standards libraries. Users now have the ability to:

- Define and manage resource libraries required to perform a production activity. These libraries include plants, work centers (cell, line, resource pool, station, work unit), tooling (tool, fixture), process materials, and skills.
- Define resource groups, which are hierarchies of physical resources and skills.
- Manage the relationship between a resource and its CAD design, which facilitates the creation of visual aids that include both parts and resources.
- Define and manage standard procedures, which are sequences of operations that can be used, re-used, and/or referenced within a process plan.
- Define and manage manufacturing capabilities, which indicate how a process can be executed using a combination of resources, standard procedures, and documentation.
- Define and manage compatibilities, which indicate how resources and manufacturing

capabilities must, can, or cannot be combined together.

- Define Manufacturing Standard Groups, which are hierarchies of manufacturing capabilities and standard process plans.

Multimedia

Images



Manufacturing Resource Explorer

Product What's New

Add to Project Preference Options

Streamline the steps to share related Product information to a Project. When adding information from a Product to a Project context, there are new preferences for default objects to be added to the collection list.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Check out / Add to Project Project Management and Execution |
| User Interface Location | |
| Processes and Initiatives | Design Outsourcing |

Benefits and Description

When sharing a set of related information to a Project, it is important to be able to quickly select sets of related information to include in the Project.

The new Add to Project preferences enables:

- A simple way to set defaults for related information that should be selected when adding information to a Project
- Preference setting to be set as a default for groups or the entire organization
- Individual users to set their own preference
- Individual preference settings for Affected Data, CAD Documents, Change Notices, Change Requests, Documents, Drawings, Family tables, Generics, Notes, Parts, Problem Reports, and Variances.

Multimedia

Images



| Project Images | | |
|----------------|-----|----------|
| Image 1 | 1 | 1/1/2020 |
| Image 2 | 2 | 1/1/2020 |
| Image 3 | 3 | 1/1/2020 |
| Image 4 | 4 | 1/1/2020 |
| Image 5 | 5 | 1/1/2020 |
| Image 6 | 6 | 1/1/2020 |
| Image 7 | 7 | 1/1/2020 |
| Image 8 | 8 | 1/1/2020 |
| Image 9 | 9 | 1/1/2020 |
| Image 10 | 10 | 1/1/2020 |
| Image 11 | 11 | 1/1/2020 |
| Image 12 | 12 | 1/1/2020 |
| Image 13 | 13 | 1/1/2020 |
| Image 14 | 14 | 1/1/2020 |
| Image 15 | 15 | 1/1/2020 |
| Image 16 | 16 | 1/1/2020 |
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| Image 19 | 19 | 1/1/2020 |
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| Image 98 | 98 | 1/1/2020 |
| Image 99 | 99 | 1/1/2020 |
| Image 100 | 100 | 1/1/2020 |

Add to
Project
Preference
Options

Product What's New

Add to Workspace and Check-Out Options

The Windchill 9.0 Workgroup Manager provides additional options for users who are placing objects into the workspace.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

The Windchill 9.0 Workgroup Manager provides users with additional options for use during the Add to Workspace process. These options include:

- Configuration (Latest, As Stored, Baseline, Promotion Request)
- Dependencies (Required, All, None)
- Related Business Objects (Parts, Drawings, Family, Generics, CAD Documents)

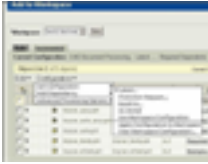
Users also have the ability to select an appropriate view to display the objects when they are being added to workspace. The following is a list of available views:

- As a List
- As a Structure
- By Drawings
- By Associated Objects
- By Family Table

In addition, users can perform compound actions (for example, Check Out, Download) when adding objects to the workspace.

Multimedia

Images



Add to
Workspace
and Check-
Out Options

Product What's New

Additional File Type Support for Windchill Workgroup Managers

The Windchill Workgroup Managers in Windchill 9.0 have the ability to store additional file types that were not supported by the Workgroup Managers before.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill 9.0, the Windchill Workgroup Manager supports a preference which allows administrators to define the extension, base name, and file types that should be automatically attached to a supported CAD Document type upon upload to PDMLink.

There will be a client preference to identify local directories to search for content that will be auto-attached. Functionality will assume that the name of these related files are based on the main model's CAD name.

Administrators should be able to define the extension of the file(s) to be automatically attached. They should also be able to define the CAD Applications that the criteria applies to.

Product What's New

Adobe LiveCycle Forms Support for Workflow Tasks

Windchill Release 9.0 will support the association of Adobe LiveCycle Forms with workflow activities. Through the use of Adobe Forms, Administrators gain precise control over the presentation and validation of workflow task pages. As a result, the forms presented to users are familiar, and their work can be saved off-line and submitted when ready.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Workflow/Teams/Lifecycles |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

Adobe LiveCycle Forms can be associated with workflow activities in Windchill Release 9.0.

Workflow activity tasks authored using a LiveCycle Form give Administrators the ability to:

- Control the layout of the activity tasks using Adobe's powerful layout tool
- Embed form field validation logic into the form itself
- Pre-populate fields with Windchill business object attributes and workflow variables

Workflow activity tasks, which are driven by a LiveCycle Form, allow a user to:

- Complete a form off-line and submit it to Windchill when ready
- Dynamically add rows and sum columns in Spreadsheet Elements
- Add Attachments
- Work with a familiar form

Product What's New

Alternate and Substitute Improvements

The Windchill PDMLink capabilities for alternates and substitutes have been improved, making information about replacement parts easier to create, view, and retrieve.

Product Information

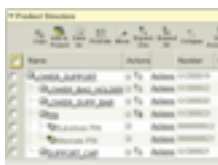
| | |
|---------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Configuration management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management |

Benefits and Description

The Windchill PDMLink functionality for alternates and substitutes has been improved to make them easier to define, more visible in the display of product structures, and easier to modify. The product structure browser clearly indicates which parts within the product structure have predefined replacements. Users may navigate to and edit the replacement part relationships, including the ability to replace the preferred part with a previously defined alternate or substitute. A product structure report showing all of the pre-qualified replacements is also provided. All of these capabilities are also offered in the Product Structure Explorer.

Multimedia

Images



Product
Structure
Explorer

Product What's New

Arbortext Advanced Print Publisher Support

Windchill 9.0 introduces the support for the Arbortext Advanced Print Publisher as an option for automated publishing of high quality, layout-intensive documents. The Arbortext Advanced Print Publisher can be installed with Windchill PDMLink, Windchill ProjectLink or Arbortext Content Manager.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Arbortext Document Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Technical Publications |

Benefits and Description

Windchill 9.0 introduces support for the Arbortext Advanced Print Publisher in addition to the previously supported Arbortext Publishing Engine. Integrating Arbortext Advanced Print Publisher and Windchill allows customers to automate the production of layout-intensive publications from a single XML source document. Intended for high-quality print applications, such as STM (Scientific/Technical/Medical) journals, legal documents, text books, catalogs and directories, the Advanced Print Publisher enables publication designers to automatically format documents with complex designs and includes the option to manually adjust the layout after automation.

Product What's New

Attribute Handling for Windchill Workgroup Managers

The format of the Windchill attributes which was added by the Workgroup Managers to the CAD file has changed in Windchill 9.0.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill 9.0, the format of the Windchill attributes which was added to CAD files by the Workgroup Managers has changed. The following is a mapping between the old Windchill 8.0 attributes and the new Windchill 9.0 attribute format:

| Windchill 8.0 Format | Windchill 9.0 Attribute Format |
|-----------------------------|---------------------------------------|
| SP:REV | PTC_WM_REVISION |
| -- | PTC_WM_LIFECYCLE_STATE |
| SP:DOC_NAME | PTC_WM_NAME |
| SP:CAD_NAME | -- |
| SP:DOC_NR | PTC_WM_NUMBER |
| SP:ITERATION | PTC_WM_ITERATION |
| SP:ORG_ID | PTC_WM_ORGANIZATION_ID |
| -- | PTC_WM_LIFECYCLE |

| | |
|--------------|--------------------|
| SP:PART_NAME | PTC_WM_PART_NAME |
| SP:PART_NR | PTC_WM_PART_NUMBER |
| SP:NAMESPACE | -- |

Note: Some of the attributes are new for Windchill 9.0, and a few have no corresponding attribute because the Windchill 9.0 Workgroup Managers have differences in handling data.

Product What's New

BOM Notes

Windchill 9.0 provides the ability to capture design note information in the Windchill database and associate it with an assembly product structure.

Product Information

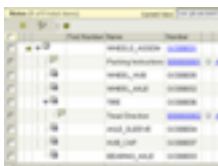
| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Structure and BOM Management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Detailed Design Manufacturing Process Management |

Benefits and Description

Important design information is often contained in notes on an assembly drawing. This textual information can be controlled by configuration and it is therefore important to ensure it is stored along with all other forms of product definition data in a PLM system. Windchill 9.0 provides the ability to create and associate note information with an assembly product structure. Notes may be created individually or from standard templates, which are stored in a common repository. Notes may also be revised and released using Windchill's process management tools. Windchill provides a standard BOM Notes report associating all note information relevant to an assembly.

Multimedia

Images



BOM Notes

Product What's New

Browser-Based Product Structure Editing

The browser-based product structure editing capability in Windchill Release 9.0 enables users to quickly create or update a single-level product structure with new or existing parts.

Product Information

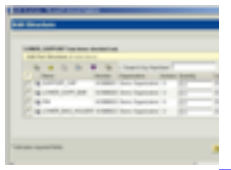
| | |
|---------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Structure and BOM Management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management |

Benefits and Description

The new browser-based product structure editor helps designers to rapidly create or update a single-level of a Bill of Material in Windchill. The easy-to-use web interface has a quick search tool providing users the ability to type in a fragment of a part number and see a pull-down list of parts containing that fragment. Parts may also be added to the single-level BoM through copying part references from other Windchill information pages. Once a new part is added to the parts list, the user can fill in additional information by tabbing from left to right in the remaining attribute fields.

Multimedia

Images



Edit
Structure

Product What's New

Change Management Usability Improvements

The Change Management capabilities in Windchill 9.0 have been significantly expanded and productivity improvements have been made to manage your change tasks and process more effectively. The user interface for creating and editing the change management objects, performing workflow tasks associated with the change management process, and displaying the information associated with the change management objects has been completely redesigned for Windchill Release 9.0. Numerous enhancement requests and software defects have been resolved as a result of the new user interface.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Change Processing |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management |
| | Manufacturing Process Management |
| | New Product Introduction |

Benefits and Description

The primary goal of the new change management user interface design is to improve the ease of use. Secondary goals of the new user interface design are to improve consistency of user interaction with the rest of Windchill, to improve the ease with which site tailoring and customization can be achieved, and to improve the overall performance.

Some of the highlights of the new change management user interface design include:

- New wizard-based change management forms and new information pages using JCA client technology.
- Streamlined data entry of affected/resulting object tables using the common clipboard, collector, and object search dialog.
- Enhanced and more consistent revise action from the change notice.
- Option for the auto-generation of change notices from change requests.

- Option for the propagation of affected objects, attribute values, and attachments among the various change management objects.
- Improved work assignment usability with improved task forms.
- Consistent number-oriented display for the identification of objects
- Role-based display of actions.
- Incorporation of other common UI components, maintenance release enhancements, new Windchill Release 9.0 change management features, and numerous enhancements and software fixes that have been requested by customers.

Product What's New

Changes Without Change Requests

Change notices can be planned, implemented, and released without the requirement for an associated change request.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Change Processing Planning & Implementing Changes |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Manufacturing Process Management New Product Introduction |

Benefits and Description

The primary objective of supporting a change notice without a change request is to eliminate the overhead associated with a separate investigation and authorization process when there is minimal business value being added. This situation can occur when the authorization of the change occurs in an external system, the change is simply being documented as released from an external change process, or the change is corrective in nature. In some cases, the initial release of new parts and documents supporting the development of a new product can occur without requiring the authorization of a change request.

Product What's New

Checkout on the Fly

Windchill 9.0 Workgroup Manager users will be able to “checkout on the fly” any CAD models they’ve locally modified.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

Windchill 9.0 Workgroup Manager users will be able to “checkout on the fly” any CAD models they’ve locally modified when they attempt to check in or save these changes back into Windchill. If certain CAD models are not available for checkout (e.g. checked out by another user), users will still be able to save their changes to their workspaces, both locally as well as on the server.

This capability allows users to work on their CAD designs without concerns about checking out these models prior to modifying them. In addition, users will only be prompted to checkout any designs which they have modified at the time of saving to workspace and/or check in.

Product What's New

Classification of Parts

Parts can be classified using the HTML part create action in Windchill Release 9.0. Classification can also be limited to leaf or terminal nodes.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PartsLink Classification and Reuse Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Classification Sourcing, Classification, and Search |
| User Interface Location | |
| Processes and Initiatives | Component & Supplier Management Detailed Design |

Benefits and Description

The ability to classify parts within the HTML part create action enables engineers to quickly and efficiently complete the task of classifying parts. With the easy to use web interface, an engineer can quickly create a new part, classify the part, and provide the necessary information for the classification attributes. During the selection of the classification, an option can be enabled to only allow the user to selection a classification node that is a leaf or terminal node.

The same easy to use web interface can also be used to update the classification and any of the classification attributes.

Product What's New

Configuration and Instance Usability Improvements

The user interfaces for the creation of part configurations and instances have been enhanced and streamlined. All operations for creating As-Built product structures have been consolidated into web pages, making the flow of operations more intuitive and efficient.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Configuration management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management |

Benefits and Description

Prior to Windchill 9.0, a user creating part configurations and instances was required to perform half of the necessary tasks using the Product Structure Explorer and the other half using a collection of web pages. These operations have now been consolidated so that the user can perform all necessary tasks using the web pages.

In addition to the associated improvements in performance, selected operations have been analyzed and made more efficient. For example, users can now create and allocate a new instance to a higher level instance in one operation, perform multiple allocations for a hierarchy of instances from one structure display, and replace a part with an alternate or substitute within a specific instance.

Product What's New

Creating a Generic Product Platform

In Windchill 9.0 users have the capability to create a product structure with optional elements comprised of new or existing parts as well as establish logical expressions controlling the usage and applicability of these options.

Product Information

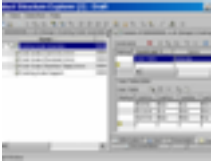
| | |
|----------------------------------|--|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Options and Variants Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Variant Design & Generation |

Benefits and Description

In Windchill 9.0, the capabilities of the Product Structure Explorer (PSE) have been extended to give customers the ability to create generic product structures or generic product platforms. A generic product platform consists of required and optional elements that may be combined in numerous ways to create an entire family of related product variations (or “variants”). Users may establish rules (or constraints) for a variety of logical situations that include allowing an option to be selected from a pre-defined list, enforcing mutual exclusivity between options, and requiring options dependent upon previously selected options. Once the generic product platform has been created, individual product variants may be created by specifying the desired options through an easy-to-use wizard.

Multimedia

Images



Product
Structure
Explorer

Product What's New

Drawing Reference Links

The Windchill Workgroup Managers in Windchill 9.0 automatically associate CAD drawings to PDMLink Parts.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill 9.0, all CAD Documents that support drawings are automatically linked to the PDMLink Part through the reference between drawing and CAD model (for example, the PDMLink Part will look at the associated CAD Document of the model and establish if that model has a Drawing). If the model does have a drawing associated with it, then the drawing will be shown in the Related Documents table of the PDMLink Part. This provides a more reliable association of the drawing since the link will be based on As Stored relationships between the drawing and model.

Product What's New

Effectivity Processing Improvements

Windchill 9.0 provides improvements to the types of effectivity statements and user interfaces available for setting effectivity. Users may now set effectivity for multiple parts in a product structure in a single operation by using effectivity propagation.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Configuration management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management |

Benefits and Description

Windchill 9.0 significantly enhances the tools used for defining effectivity. The improvements include an improved definition of effectivity types and a more efficient means of setting effectivity within the context of a change process.

Effectivity types have been expanded to include MSN and Block type effectivity statements. This expansion is in addition to the Serial Number, Lot Number, and Date effectivities. Windchill 9.0 also provides a tool to further define effectivity statements by adding the qualifiers "Exact" and "No Later Than."

The user interfaces for setting effectivity now provide the capability to assign effectivity to multiple parts through multiple selection and propagation tools. Propagation allows a user to specify an effectivity statement at an assembly level and have the same effectivity set recursively for all the latest released child parts within the product structure. The user can set the propagation of effectivity to stop at lower level traceable parts. The user can also set the propagation to stop at parts that have no need for effectivity, such as fasteners.

Product What's New

General Rename Support for Windchill Workgroup Managers

The Windchill Workgroup Managers in Windchill 9.0 have the Rename ability for all supported CAD systems. Note: Rename ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill 9.0, the Windchill Workgroup Managers have the Rename functionality for supported CAD systems. This allows users to rename parts and assemblies within the data management environment without having to access the CAD system. The main benefits include:

- Renaming prompts for Name, Number, and File Name of underlying CAD Files
- Selecting related dependencies and choosing to rename some or all of the dependencies
- Maintaining referential integrity between Windchill objects and when the renamed data is opened into CAD tool
- Specifying new Names/Numbers/File Names for multiple objects based on string pattern

Product What's New

General Save As Support for Windchill Workgroup Managers

The Windchill Workgroup Managers in Windchill 9.0 have the Save As ability for all supported CAD systems. Note: Save As ability is NOT available for CATIA V5, CATIA V4, CADD5 5 and I-DEAS data in Windchill.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill 9.0, the Windchill Workgroup Managers have the Save As functionality for supported CAD systems. This allows users to copy parts and assemblies within the data management environment without having to access the CAD system. The main benefits include:

- Having Save As prompt for Name, Number, and File Name of underlying CAD Files.
- Selecting related dependencies and choosing to copy some or all of the dependencies.
- Maintaining referential integrity between Windchill objects and when new data is opened into CAD tool.
- Specifying new Names/Numbers/File Names for multiple objects based on string pattern.

Product What's New

Generating a Product Variant

In Windchill 9.0, users can create a new product variation with a specific set of options from a generic product platform.

Product Information

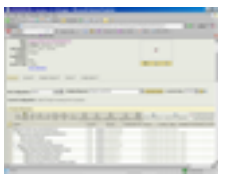
| | |
|---------------------------|--|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Options and Variants Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Variant Design & Generation |

Benefits and Description

In Windchill 9.0, a new automated process is provided that allows users to create a new product variation (or “variant”) with a specific set of options from a generic product platform. The system automatically creates a new top-level part for each new variant and reuses the existing elements from the generic product platform that correspond to each selected option. Each variant maintains a reference to the generic product platform to enable users to identify and trace common design elements for maintenance and remedial activities.

Multimedia

Images



Generating a
Product
Variant

Product What's New

Improved handling of CATIA V5 Design Tables

The Windchill Workgroup Manager for CATIA V5 in Windchill 9.0 offers improved handling of CATIA V5 Design Tables in the Windchill system.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for CATIA V5 |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill Release 9.0, the Windchill Workgroup Manager for CATIA V5 has been enhanced in its handling of CATIA V5 Design Tables. Specifically, CATIA V5 users will be able to:

- Check in/out CATIA V5 models with Design Tables to/from the Windchill system.
- Separate CATIA V5 files will be created for each row in the Design table and managed in the Windchill system.
- Open a CATIA V5 instance directly from the Windchill system and use that instance in their design.
- Track and manage the revisions of the CATIA V5 family of parts defined in the Design Table within the Windchill system.

Product What's New

Inventor iPart Factory Support

In Windchill 9.0, the handling of iPart Factories is improved for the Windchill Workgroup Manager of Autodesk Inventor.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for Autodesk Inventor |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill 9.0, the handling of Autodesk Inventor iPart Factories for the Windchill Workgroup Manager of Autodesk Inventor is enhanced. Specifically, Autodesk Inventor users will be able to:

- Rename an iPart Factory generic or instance while maintaining references to assemblies.
- Save as another iPart Factory, giving new names to generics and instances.
- Manage custom iPart Factories in Windchill. These will be not be managed as family table objects but as separate inter-related parts with references between the corresponding Windchill CAD Documents.

Product What's New

Managing Change Management Object Modifications

Modifications made to the Windchill change management objects can be formally managed using a revision process. The policies and procedures for managing the modifications to the change management objects can vary according to the needs of your company.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Change Processing Deviations and Waivers Investigation and Change Justification Need Identification Planning, Implementation, and Release |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Manufacturing Process Management New Product Introduction |

Benefits and Description

Companies that enable this feature will enhance their control of and traceability to the modifications made to the change management objects. Generally speaking, the tracking of change management object modifications would occur after the initial approval so that any necessary modifications can be reviewed, approved, and communicated in a controlled manner. Only the latest revision of the change management object is visible in the Windchill system, with the older revisions available for reference through the revision history. This feature is available to all of the change management objects, including deviations/waivers, problem reports, change requests, and change notices.

Product What's New

Multiple CAD Application Interaction

The Windchill 9.0 Workgroup Manager provides a common user interface for all PDM actions on the supported CAD applications.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

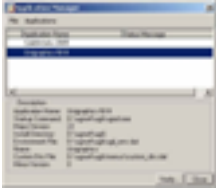
The Windchill 9.0 Workgroup Manager allows users to register multiple CAD applications (for example, Unigraphics and Solidworks) within the same Workgroup Manager user interface. This common user interface provides consistent PDM actions and behaviors for all of the registered CAD applications. As a result, users can easily switch among CAD applications, interacting with the same Workgroup Manager application in each case.

The user interface allows the user to specify which CAD applications are to be registered. From within this interface, users can also perform the following:

- Add and remove CAD applications from the registry
- Modify all configuration settings for the registered CAD applications
- Verify all registered CAD applications

Multimedia

Images



Application Manager

Product What's New

Native CAD icons for AutoCAD and Autodesk Inventor files managed in Windchill

Windchill 9.0 users will be able to identify AutoCAD and Autodesk Inventor files managed in Windchill with the same icons used for those file types in the native CAD tools, respectively.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

Users of Windchill 9.0 and Windchill 9.0 Workgroup Manager for AutoCAD and Autodesk Inventor will see the native CAD icons for the AutoCAD and Autodesk Inventor files being managed in the Windchill system. With the use of the native CAD icons, users will be able to:

- Quickly identify AutoCAD and Autodesk Inventor files in Windchill when working with multiple CAD systems.
- Visually distinguish different file types (for example, part vs. drawing vs. assembly) in Windchill or in the Windchill Workgroup Manager when working with AutoCAD or Autodesk Inventor.

Product What's New

NX Part Family Support in Windchill

The Windchill Workgroup Manager for NX in Windchill 9.0 has been enhanced to include support for the NX Part Families.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill Release 9.0, Windchill Workgroup Manager for NX now supports Unigraphics NX Part Families. NX users can now:

- Check in and check out NX part families to and from the Windchill system. Because NX generates separate, read-only Unigraphics NX Part files for each row in the Part Family, these individual, NX Part files are also managed in the Windchill system.
- Open an instance of the NX model directly from Windchill and use it in their designs.
- Track and manage the revisions of the NX model and the instances in the Part Family within the Windchill system.

Product What's New

Object Identification and Revision Scheme Policies

The unique identification of product information is a fundamental capability of a global (distributed) engineering environment. In this context, the globally unique identification of product information consists of an organization identifier, a proprietary object identifier, and possibly a revision label. Windchill 9.0 provides improved configuration of object identification and revision scheme policies in support of industry standards and company practices.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Change Processing |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Component & Supplier Management Manufacturing Process Management New Product Introduction |

Benefits and Description

Object identification and revision scheme policies are required to identify product information throughout its complete lifecycle including conceptualization, design, prototype, production, service, and retirement. Object identification and revision scheme policies must also consider the impacts for managing product information as it extends across the digital value-chain. Windchill 9.0 provides improvements for the displayed identification of product information according to the practices of your company. In addition, improvements have been added to allow more granular selection of object identification schemes and revision schemes based on the type of product information being managed. Finally, increased controls have been added to allow for overrides to the system assigned object identifiers and revision labels as well as increased controls for changes to the identification of product information.

Product What's New

Open CAD models in Native CAD applications from the Windchill system

Open from Windchill allows users to open a CAD model in its native CAD application directly from the Windchill system, or from the CAD application.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

Windchill 9.0 Workgroup Manager users can open CAD models in the Windchill vault or from the user's workspace directly from the Windchill system. When opened directly from Windchill, the CAD models are automatically downloaded (if required) to the user's local workspace cache, the CAD application is launched and the models loaded into the CAD session. In addition, users can browse and select CAD models to be opened in the CAD session directly using the Open from Windchill dialog available from the CAD application's File menu (for example, File > Open from Windchill).

Product What's New

Part Request

You can initiate a part request process when a new part is needed. This request will be routed to various stakeholders for additional information and approvals.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill Supplier Management |
| PTC Support Release | 9.0 |
| Product Functional Area | Sourcing Sourcing, Classification, and Search |
| User Interface Location | |
| Processes and Initiatives | Component & Supplier Management Detailed Design |

Benefits and Description

The part request (PR) process is used to control the creation of new parts, thus preventing the creation and use of commercial parts that are not approved by a company. After an engineer creates a part request, the request is routed to various roles in the organization who are assigned a task, for example, to add an approved manufacturer part. After all required information is added, the request is routed for approval. At the end of the PR process, a new released part is created with a valid approved manufacturer list and, optionally, an approved vendor list.

Product What's New

Preferences Managed in Windchill

The Windchill 9.0 Workgroup Manager allows users and administrators to manage, from within Windchill, preferences used by the Windchill Workgroup Manager.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

The Windchill 9.0 Workgroup Manager uses the Windchill 9.0 Preference Manager for both client and server-side preferences. The defined preferences are applicable to all Workgroup Manager clients that interact with the server. These preferences may be set by administrators (site, organization, product/library/project) or users, depending on the preference type. All of the preferences defined on the server are categorized so that users can easily identify them, and a detailed description is provided for each.

Multimedia

Images



Set Preference Explorer

Product What's New

Product Structure Explorer Find in Tree

You can use the new Find in Tree capability of the PSE to locate specific parts that may be multiple levels deep within a large Windchill product structure. Two forms of the Find in Tree function make it possible to address both simple and more powerful searches.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Structure and BOM Management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Detailed Design Manufacturing Process Management Variant Design & Generation |

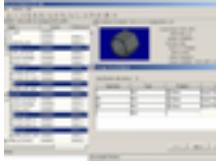
Benefits and Description

The new Find in Tree capability of the PSE can be used to locate specific parts that may be multiple levels deep within a large Windchill product structure. A simple form of this tool allows users to quickly search up or down the product structure to find a part by type, name, or number, automatically opening the tree to the location of the subject part.

A more complete Query tool lets the user create a set of queries linked by “and/or” logic and report the results either in a separate table or highlighted within the structure itself. A system administrator specifies the attributes that may be included in the query. These more powerful structure queries can be saved and reused by the user or made available to all users by an administrator.

Multimedia

Images



Product
Structure
Explorer

Product What's New

Product Structure Explorer Flexible Column Display

The Windchill 9.0 Product Structure Explorer (PSE) allows you to define and order the columns to display in tables. The display you define becomes the default each time the PSE is launched. Administrators can also define PSE column displays for use by the entire organization.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Structure and BOM Management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Detailed Design Manufacturing Process Management |

Benefits and Description

The attribute information commonly viewed and edited by users of Windchill varies depending upon their role. It also varies from company to company. In Windchill 9.0, the PSE allows you to define the columns to display in tables. It is possible to choose different columns to display, change the column display order, set the column width and freeze specified columns within the scrolling display. Some of these changes can be made graphically within the table itself through select and drag operations. All changes are saved and used each time the PSE is launched. The benefit is that users can have the information display unique to their function within the company. In addition, a site or organization administrator can define PSE column displays for default use throughout the company.

Multimedia

Images



Flexible
Column
Display

Product What's New

Product Structure Explorer Related-Data Indicators

The Windchill 9.0 Product Structure Explorer (PSE) displays icons to indicate the presence of related data. These icons can also act as links to the related information.

Product Information

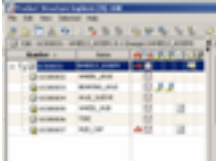
| | |
|----------------------------------|---|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Structure and BOM Management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Detailed Design Manufacturing Process Management Variant Design & Generation |

Benefits and Description

The Windchill Product Structure Explorer (PSE) functions as the “power-user’s” interface for creating and modifying product structures and related information. Related information is presented in the tabbed section in the right pane of the PSE window. Prior to Windchill 9.0 the only way to see that related information existed was to navigate to the individual tabs or outside of the PSE to other information displays. In Windchill 9.0, icon indicators prominently displayed in the product structure hierarchy of the PSE indicate that related information exists. The related information indicators also act as actions, meaning you can navigate to the related information with one click.

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A screenshot of a software interface, likely a data management or analysis tool. It features a table with multiple columns and rows. The table has a header row with labels such as 'Name', 'ID', 'Status', and 'Date'. Below the header, there are several rows of data, each containing a small icon (possibly a document or image) and some text. The interface includes a menu bar at the top with options like 'File', 'Edit', and 'View'. The overall appearance is that of a legacy software application.

| Name | ID | Status | Date |
|------|-----|--------|------|
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |
| ... | ... | ... | ... |

Related-Data Indicators

Product What's New

Product Structure Explorer Validation Tool

Validation provides the ability to check whether the changes made in a draft session of the PSE can be successfully applied. As part of the validation, the PSE displays any failures and corrective actions needed.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Structure and BOM Management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

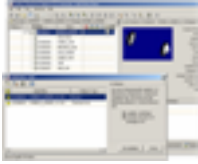
Benefits and Description

The Product Structure Explorer (PSE) allows you to make product structure modifications in a deferred save or “draft” mode. It also allows you to save proposed modifications in an annotation set so that the changes may be reviewed and approved prior to being completed. It is possible that the objects modified in a draft session or a saved annotation set will change prior to the completion of the review. When this occurs, the PSE Apply operation that performs the recommended changes may not be successfully completed. Previous versions of the PSE did not provide information about failures or guidance on how to correct the situation.

In Windchill 9.0 the PSE has the ability to complete a validation, or test run, of the apply process, locating potential operation failure conditions and recommending corrective action. The validation function in Windchill 9.0 will check for the following: objects that are checked out to another user, objects that have been iterated or revised, and new object annotations with identification that is not unique.

Multimedia

Images



Validation Tool

Product What's New

Product Structure Explorer, Improved Occurrence Display

In Windchill 9.0, the PSE provides you with the ability to select and expand a subassembly in the product structure tree to show occurrence-specific information. Previously, you had to select a separate Occurrences tab to view all occurrences for all child parts.

Product Information

| | |
|---------------------------|--|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Structure and BOM Management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Detailed Design Manufacturing Process Management Variant Design & Generation |

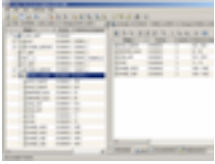
Benefits and Description

Prior to Windchill 9.0, when users of the PSE needed to see occurrence-specific information, such as reference designators, they were required to switch to a separate tab showing all occurrences for all children of the selected parent assembly. This can make the navigation of large product structures difficult.

In the PSE for Windchill 9.0, you will be able to select an individual subassembly within the product structure and toggle the occurrence specific information for that structure node only. The remainder of the product structure continues to display summarized information. In addition, the **Uses** tab in the right pane of the PSE can also be toggled from summarized to occurrence mode independent from the structure display. This capability provides more flexibility in displaying important attribute information.

Multimedia

Images



Improved
Occurrence
Display

Product What's New

ProductView Lite User Experience

ProductView Lite User Interface is totally re-designed with a strong focus on usability and is aligned with Microsoft Office 2007 look and feel

Product Information

| | |
|----------------------------------|--|
| Product | ProductView Lite Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Visualization |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

The new result-oriented User Interface is a dramatic improvement over traditional menus and toolbars and is very easy to use. It enables the user to focus on what they want to do rather than how they do it. The UI is task based and focuses on showing the most relevant command set for the specific task. For example, when viewing a 3D Model in ProductView Lite, measurements on the 3D Models are relevant and the UI allows the measurements but not when viewing PDF documents or images.

The UI design includes the following elements:

1. Minimal top level menu

This is a single entry point in the UI. The core tasks of Saving, Printing, and Modifying preferences are accessible from this button.

2. Ribbons, Ribbon tabs

The traditional menus and toolbars have been replaced by the Ribbon that presents commands organized into a set of tabs. The tabs on the Ribbon display the commands that are most relevant for each of the task areas in ProductView Lite. For example, "Markup" tab provides easy access to the most frequently used markup commands such as Annotations and Measurements

3. Ribbon groups

The Ribbon groups are contextual and only appear based on the type of the document (3D Models, Images, Documents, Drawings). The Ribbon

groups make it much easier to find and use the commands needed for the operation at hand. Refer to the pictures below to note the difference in the commands displayed for 3D Models and Drawings.

4. **View gallery**

The View gallery in ProductView Lite presents the available views and annotation sets. This offers a quick and easy access to the views or annotation sets.

5. **Graphics area** This is the primary viewing area in ProductView Lite that offers the visualization of 3D Models, Drawings, Documents, and Images.

6. **Primary navigator** The primary navigator provides navigation in the loaded data. It consists of two tabs – Files and Annotation Sets. The “files” tab lists all the loaded files and allows navigation.

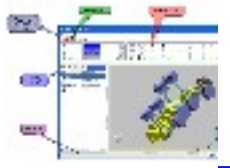
The “Annotation sets” tab will list the annotation sets (if any) in the loaded dataset and allows the activation / commands on the annotation set. This navigator is presented as vertical pane.

7. **Attributes navigator**

The Attributes navigator presents the Attributes/metadata/attributes/parameters for the selected ‘parts’. This is a horizontal navigator drag-able in the vertical direction.

Multimedia

Images



Product View
Lite User
Interface

Product What's New

Project Linking and Tiering

The new Project linking and tiering capabilities introduce a powerful approach to manage large company projects. With this new capability, key information from multiple projects may be linked to share status, ease navigation and communicate overall project structure.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Project Linking and Tiering Project Management and Execution |
| User Interface Location | |
| Processes and Initiatives | Design Outsourcing |

Benefits and Description

A Program is a capability used to organize large projects being managed within several contexts in Windchill.

A Program has a team, content, and links to other information for the Program using the concept of a Network. A Program Network is the linking concept to link related information with Projects and Products. The Network structure consists of folders and links to contexts, objects, web sites, URLs, etc. Folders in the network are used to help organize the Program information. A Program may have a plan and deliverables.

The Program Network enables:

- Teams to effectively organize and manage collections of products, projects, and libraries according to the various needs and roles across the organization.
- Clear and direct visibility to organization structures and related products, libraries across the extended supply chain.
- Users to search within an organized collection where the collection itself defines the search scope groups to easily find the status of large development projects, rapidly navigate to important information and enable searching over a set related projects.

Multimedia

Images



Project Linking and Tiering

Product What's New

ProjectLink Support

Windchill 9.0 introduces support for the management of Arbortext dynamic documents in Windchill ProjectLink.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Design Outsourcing Detailed Design Technical Publications |

Benefits and Description

Windchill 9.0 extends the PTC collaborative Technical Publications capabilities by providing full connectivity between Arbortext Editor, Arbortext Publishing Engine (including the Advanced Print Publisher) and Windchill ProjectLink. This support includes the ability to manage XML documents created with the Arbortext Editor in ProjectLink through actions such as burst, check in and check out. This release also allows sharing and the check in and check out of dynamic documents between products, libraries and projects in a co-installed Windchill ProjectLink and Windchill PDMLink server environment or a co-installed Windchill ProjectLink and Arbortext Content Manager server environment.

Product What's New

Reference Designator Improvements

Windchill 9.0 provides the ability to assign and display reference designators for product structure occurrences individually or by using ranges.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Structure and BOM Management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Design Outsourcing Detailed Design Manufacturing Process Management |

Benefits and Description

Prior to Windchill 9, product structure authors were required to define reference designator labels one at a time using an interface that showed all occurrences. Now users are able to define reference designators in the Product Structure Explorer and Browser-based Structure Editor using a single statement representing a reference designator range. Reference designator ranges are validated according to common practices and matched with the specified quantity. The Product Structure Browser and Product Structure Editor will switch the range to display individual reference designator labels when in occurrence specific modes. All reports will show reference designator ranges as appropriate.

Multimedia

Images

| Est. Number | Est. Name | Est. Type | Est. Status | Est. Date | Est. Amount |
|-------------|-----------|-----------|-------------|------------|-------------|
| 00000001 | Quantity | Estimate | Open | 10/10/2010 | 100.00 |
| 00000002 | Quantity | Estimate | Open | 10/10/2010 | 100.00 |
| 00000003 | Quantity | Estimate | Open | 10/10/2010 | 100.00 |
| 00000004 | Quantity | Estimate | Open | 10/10/2010 | 100.00 |
| 00000005 | Quantity | Estimate | Open | 10/10/2010 | 100.00 |
| 00000006 | Quantity | Estimate | Open | 10/10/2010 | 100.00 |

Reference Designator Improvements

Product What's New

Role Based User Interface

The role-based configuration capability in Windchill 9.0 allows administrators to configure the user interface to fit a user's profile, tasks, and information needs.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Administration Usability |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

This capability allows an administrator to control visibility to Windchill information based on a user's ID or group membership. The most typical motivation is to provide a focused set of information and actions to a supplier, partner, customer, or internal user. Such users may either be infrequent participants in a product or project, or are likely to be confused by certain actions or information.

The goal is to provide team roles with just the information and capabilities they need and no more. Limiting information and available actions can eliminate confusion, misunderstanding, errors, rework, and loss of time.

Product What's New

Specifying the Options for a Product Variation

Windchill 9.0 provides the capability for users to select the options they desire for a product variation from the set of available options for a generic product platform, using an easy-to-use configuration wizard.

Product Information

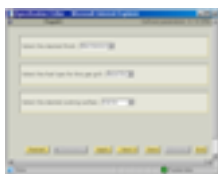
| | |
|----------------------------------|--|
| Product | Windchill PDMLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Product Options and Variants Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Variant Design & Generation |

Benefits and Description

In Windchill 9.0, a new configuration wizard presents users with the ability to specify the desired options for a specific product variation (or "variant"). The wizard automatically interprets the logic information from a generic product platform and presents the user with a sequence of selections by which the user specifies the desired options. Each option is described using text from the generic product platform and may be augmented with images to improve the user's understanding. The wizard automatically evaluates each selected option to determine its relevance to all other unspecified options and by-passes any options that are no longer applicable. Configuration results may be saved, modified, and used to produce unique product variants.

Multimedia

Images



Specification Editor

Product What's New

Tighter Integration with CAD Application User Interface

With Windchill 9.0, CAD users experience a tighter integration between Windchill and their native CAD application user interface.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

With Windchill 9.0, CAD users experience a tighter integration between Windchill as their data management tool and their native CAD application user interface. Windchill-related buttons and menus are appropriately positioned within their native CAD application user interface. When working with Windchill, menu selections such as 'File • Check In' or 'File • Check Out' are available in the CAD application's native File menu. Additional menu selections such as 'Tools • Server Registry...' (to register a Windchill server that manages the CAD designs), are available in the Tools menu in the CAD application user interface.

With the tighter integration, CAD users can locate and initiate PDM-related actions directly within their familiar, CAD application user interface. Once the PDM actions such as 'Check In' are completed, the user can continue to work on their CAD designs while these CAD designs are available to the rest of the enterprise.

Note: Windchill Workgroup Manager for CATIA V5 has a top-level 'Windchill' menu with the set of PDM-related buttons and fly-out submenus.

Product What's New

Unified Part Model

The functionality of parts has been improved and unified in Windchill 9.0. Users now have increased flexibility to define and modify traceability specific to their product structure usage.

Product Information

| | |
|----------------------------------|---|
| Product | Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Configuration management Product Structures, BOMs, and Configurations |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management |

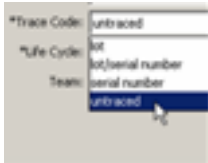
Benefits and Description

In previous Windchill releases a user was required to determine in advance what form of traceability would be assigned to a given assembly or component. After the part was created and stored in the database, it was impossible to change how it was traced. It was also not possible to vary the form of traceability according to the assembly the part was used in.

In Windchill 9.0, users have the ability to define a default "Trace Code" in one of four forms: untraced, Serial Number, Lot, and Lot/Serial number. If the traceability status of the assembly or part changes, the default trace code can also be changed. Additionally, the user can assign a different form of traceability when the part is used in a different product structure.

Multimedia

Images



Unified Part Model

Product What's New

Windchill Business Reporting

Windchill Business Reporting is a new reporting framework that uses industry leading Cognos 8 Business Intelligence, to increase information visibility and access for business decision makers and to help reduce reporting costs by providing users with the capability to quickly develop and distribute robust reports using your Windchill data.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Reporting |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

- A number of pre-built reports on subjects such as change management activities, user task status, and project progress. Optional report author licenses enable you to create new reports or modify existing ones using the Cognos framework.
- Schedule automated report generation and e-mail distribution of reports.
- Export report outputs to Excel, PDF, HTML, CSV, XML and other formats with the click of a button.
- An integrated user interface allows you to access, view, and generate reports directly from within Windchill user interface, or from the Cognos user interface using Windchill authentication credentials.
- Create graphical and tabular reports easily and quickly using easy to use, drag-and-drop Cognos report authoring tool. Develop reports with hyperlinks and drill-down to not just see a problem, but actually solve it.
- The state-of-the-art reporting framework increases the speed of report development and distribution and reduces reporting cost.

Product What's New

Windchill Customizations

New JSP-based Windchill client technology provides high-level building blocks to quickly create Windchill customizations.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Customization |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

Windchill 9.0 is developed with the new Windchill UI client technology. This UI technology is built on top of the Windchill ProjectLink UI framework and provides many high-level building blocks and re-useable components to simplify and facilitate Windchill customizations.

Some of the features of this framework include:

- JSP-based with incorporated AJAX capabilities
- Over 30 documented and ready-to-use common components such as table, wizard, type picker, information page, user picker, and menu
- Windchill-aware tag libraries that facilitate development, improve re-use, reduce maintenance costs, and separate presentation from data.
- Sample code snippets
- Shortened learning curve due to the widespread availability of JSP knowledge and skills
- Ability to leverage Windchill Info*Engine for data acquisition
-

Ability to interoperate with Windchill DCA and Template Processor technologies

- Type-aware components and support for multivalued attributes and new attribute types (for example, Date, URL, and radio buttons)
- 508 compliance built into the framework's components

Product What's New

Windchill Index Search

Search has been improved with the addition of Windchill Index Search. This search engine includes features such as spell checking, content teasers, and search results sorted by relevancy.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager Windchill PDMLink Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Search Sourcing, Classification, and Search |
| User Interface Location | |
| Processes and Initiatives | Change & Configuration Management Design Outsourcing Detailed Design Manufacturing Process Management Technical Publications Variant Design & Generation |

Benefits and Description

Windchill Index Search, powered by InStream, provides a robust and scalable solution for indexing content. The following additional features are available when performing an index search:

- **Spell Checking:** When a keyword is misspelled, a suggestion is displayed.
- **Content Teaser:** When an object is returned based on a match to a word within the object's content, a small section of the text with the matched word is displayed.
- **Relevancy:** When search results are returned, the results are ordered based on relevancy to the search criteria.

Note: Results are sorted by relevancy only when no pre-defined sort for the results table has been set.

Product What's New

Windchill Server Registration

The Windchill 9.0 Workgroup Manager allows users to easily register and interact with multiple Windchill servers from the same Windchill Workgroup Manager application.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

The Windchill 9.0 Workgroup Manager allows users to easily specify all available Windchill servers with which the Workgroup Manager will communicate. A user can quickly switch among active workspaces or completely different Windchill servers.

From within the server registry user interface, users can perform the following functions:

- Create a server alias name for a particular Windchill URL
- Validate the existence of the server
- Choose from existing server workspaces or create new workspaces
- Define and activate a primary server (the default server for storage, retrieval, and all PDM actions)
- Modify all saved server registry information

Multimedia

Images



Windchill
Server
Registration

Product What's New

Workspace Preferences

The Windchill 9.0 Workgroup Manager allows users to quickly configure their workspace preferences directly from within the application.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

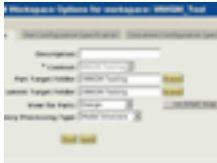
Benefits and Description

The Windchill 9.0 Workgroup Manager allows users to access their workspace preferences from within the application's embedded browser. From the browser, users can define configuration specifications for both parts and CAD documents to be used when the objects are retrieved from Windchill. The following workspace options may also be set:

- Workspace description
- Target folder for all parts and CAD documents
- View for all parts
- Dependency processing types (model or product structure)

Multimedia

Images



Workspace Preferences

Product What's New

Workspace Status Icons for Windchill Workgroup Managers

The Windchill Workgroup Manager in Windchill 9.0 provides improved messaging for the status of Workspace objects.

Product Information

| | |
|----------------------------------|--|
| Product | Windchill PDMLink Windchill ProjectLink Windchill Workgroup Manager for AutoCAD Windchill Workgroup Manager for Autodesk Inventor Windchill Workgroup Manager for CATIA V5 Windchill Workgroup Manager for SolidWorks Windchill Workgroup Manager for UGS NX |
| PTC Support Release | 9.0 |
| Product Functional Area | 3rd Party MCAD Data Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Detailed Design |

Benefits and Description

In Windchill 9.0, the Windchill Workgroup Managers provide improved information regarding the status of data in Workspace. This allows users to manage their Workspace more efficiently.

Multimedia

Images



Workspaces
Preferences
Status Icons

Product What's New

Integral Windchill ProjectLink with Arbortext Content Manager

Windchill ProjectLink with Arbortext Content Manager enables organizations to easily execute projects and inspires collaboration among members of an extended content-creation team.

Product Information

| | |
|---------------------------|--|
| Product | Arbortext Content Manager Windchill ProjectLink |
| PTC Support Release | 9.0 |
| Product Functional Area | Arbortext Document Management Structured Content Management |
| User Interface Location | |
| Processes and Initiatives | Technical Publications |

Benefits and Description

Using Windchill ProjectLink with Arbortext Content Manager allows Web-based content creators to bring globally dispersed contributors together as if working in the same room. Windchill ProjectLink creates a virtual workspace that enables all team members, internal and external, to access up-to-the-minute information and documents. The Windchill integral operations of ***Share, Remove Share, Update Project, PDM Check-out, Undo PDM Check-out, Convert to PDM Check-out***, and ***Send to PDM*** enable users to share and exchange structured XML content not only within Arbortext Content Manager but also with projects in ProjectLink. Just like Arbortext Content Manager, Windchill ProjectLink preserves structured content relationships at every component level. Arbortext dynamics documents can be worked on in a project using the integral Arbortext Editor then sent back to Arbortext Content Manager when ready for review and publishing.

Product What's New

Breakthrough Performance

ProductView Lite 9.0 has been re-architected for superlative levels of performance. The new architecture is scalable for visualization of ultra light to ultra large datasets.

Product Information

| | |
|---------------------------|----------------------------------|
| Product | ProductView Lite |
| PTC Support Release | 9.0 |
| Product Functional Area | Visualization |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

ProductView Lite 9.0 offers breakthrough performance through:

- Ultra-light weight ProductView Viewable files
- Faster loading and interaction
- Faster graphics rendering
- High performance data retrieval
- Efficient memory usage for larger models

Product What's New

New file format “PVS” introduced

With this release, a new file format “PVS” is introduced. “PVS” file is similar to “ED” file and contains structure and metadata information.

Product Information

| | |
|---------------------------|----------------------------------|
| Product | ProductView Lite |
| PTC Support Release | 9.0 |
| Product Functional Area | Visualization |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

There are significant changes to the underlying architecture of ProductView with this release. A new file format “PVS” has been introduced that offers superior compression ratios and superlative performance.

PVS files

“PVS” stands for ProductView Structure file. PVS files are similar to the “ED” files. They are:

- Significantly smaller than ED files
- Encapsulate structure and metadata
- Binary format unlike ED files that are ASCII
- UTF-8 encoded
- PVS files replace ED files
- “OL” files still contain geometry

Product What's New

Workflow Assignment Management

Improve your ability to manage and collaborate on your work. Worklist pages, workflow process and task details pages in Windchill Release 9.0 have more configurable information. Workflow notifications can send e-mail attachments, and can be sent to external (non-registered) participants.

Product Information

| | |
|----------------------------------|---|
| Product | Arbortext Content Manager |
| PTC Support Release | 9.0 |
| Product Functional Area | Workflow/Teams/Lifecycles |
| User Interface Location | |
| Processes and Initiatives | |

Benefits and Description

Windchill Release 9.0 helps you manage your work through configurable assignment views and easily customizable task details pages. Tasks can be worked on and saved for later, and the new HTML-based interface for modifying team participants is faster and easier to use than the applet-based version from previous Windchill releases.

In Release 9.0, the ability to search for and reassign tasks, receive notification on delegation, and view delegation history help with tracking the status of tasks and processes. The new light-weight process view allows users to understand the steps of a workflow and how they are executed, and in Release 9.0, workflow processes can attach business object details or content to e-mail notifications and send notifications to non-registered addresses.