

# Windchill® Info\*Engine®

Integrate PTC's Windchill Solutions with Enterprise Applications and Other Technologies

Windchill Info\*Engine makes it easy to share product data – in real time or asynchronously – with other enterprise applications to improve the speed, efficiency and quality of product development.

Windchill Info\*Engine is a robust integration engine that offers standard, out-of-the-box adapters that directly connect your Windchill applications with legacy and other enterprise systems. With its standards-based integration framework, Windchill Info\*Engine can also be easily “plugged into” a Service-Oriented Architecture (SOA) or other enterprise integration architectural designs.

## Key Benefits

### Increase Efficiency

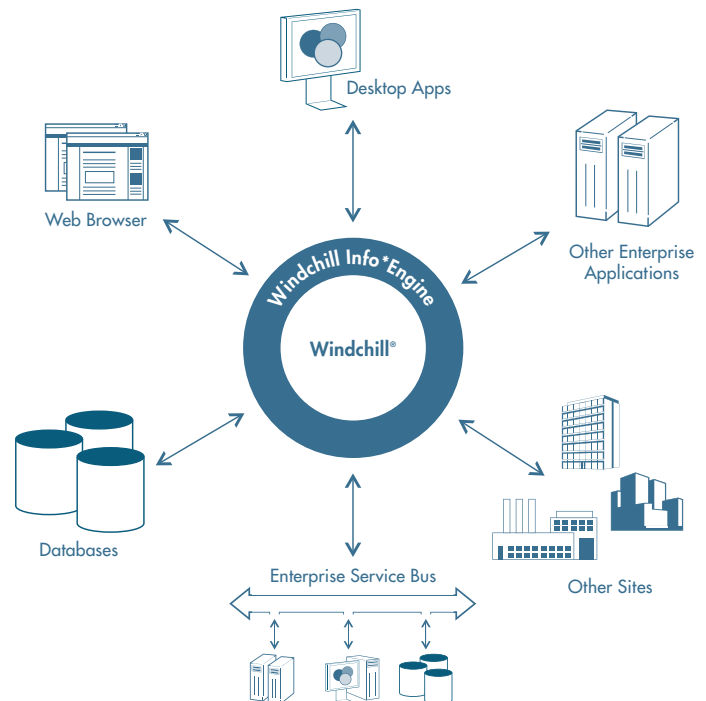
Eliminate errors and delays when distributing critical information between enterprise systems. By easily viewing product content stored in other legacy/enterprise systems, Windchill users can quickly gain insight into essential information managed in other systems, such as part cost or inventory. Such integration can also help automate the release of product data to manufacturing and enable multiple applications to participate in an enterprise change management process.

### Drive Downstream Enterprise Systems

Systems, such as ERP, depend on product data for many activities, including production planning, material ordering and sales forecasting. Driving the release of product data into these systems ensures that the most current design information is used to optimize ordering of long lead-time items, ensuring faster manufacturing turnaround and accurately planned production. Windchill Info\*Engine can be used as the basis for custom integrations to ERP, or as the foundation for other PTC products like Windchill Enterprise Systems Integrations (ESI) that provide turnkey integrations certified for specific ERP systems.

### Leverage Existing IT Investments

Supports industry-standard IT infrastructures, network protocols, APIs, and interfaces, such as Structured Query Language (SQL), Open Database Connectivity (ODBC), Java Database Connectivity (JDBC), Lightweight Directory Access Protocol (LDAP), HTML, XML, J2EE, JSP, JCA, SOAP, WSDL and JMS. Thus, Windchill Info\*Engine can be easily added to your existing infrastructure, extending the capabilities of your present resources and tools.



Windchill Info\*Engine can integrate with a variety of applications.

### Increase Developer Productivity

Traditionally, integrations to enterprise applications have required the use of low-level Java or C APIs and complex application adapters. Thus, supporting new integration scenarios often involved developing new, low-level application APIs—a labor-intensive task that required a high level of development expertise. Windchill Info\*Engine allows developers to work at a higher level of abstraction, eliminating the need to interact directly with Windchill—application or remote—system APIs. With Windchill Info\*Engine, new integration scenarios can be supported simply by creating new XML task definitions, each of which would correspond to hundreds of lines of code using traditional integration techniques. Developers can optionally register new tasks as Web Services in the Windchill service directory without any additional or duplicate coding.

## Features

### Open Architecture Based on Industry Standards

- Communicates through existing intranets, extranets, or the Internet
- Supports J2EE, including standard JSP tag libraries, JMS, and Java Connector Architecture with automatic DAO and EJB generation
- Supports Web Services with WS-I Basic Profile-compliant SOAP and WSDL
- Support for the PLM 2.0 schema of PLM Services (Based on STEP AP214)
- Easily integrates with commercial EAI products through standards-based interfaces or native adapters
- Supports Java native and XML/XSL transformations

### Bi-directional Framework

- Native support for both messaging and transactional semantics, thus providing robust Extraction, Transformation & Loading (ETL) functionality
- Full create, read, update, and delete data access and extraction from almost any system, using supplied functions
- Data manipulation functions such as sort, join, merge, intersection, xor, subset, and compare
- Synchronous and asynchronous operation modes
- Checkpointing – to guarantee task execution and ensure that communication between systems is never lost due to system downtime or transmission issues

### Robust, Reliable Transaction Management

- Wrap a set of operations within a transaction, called transaction units, to ensure all actions within the transaction are either committed (executed) or rolled-back (cancelled) together
- Load balance with parallel processing
- Apply failover capabilities to ensure that integration is maintained if a server malfunctions
- Achieve horizontal scalability by defining multiple parallel adapters

### Advanced Administrative Tools

- Use the Graphical XML Task Editor to aid in the configuration of process and data integrations
- Enable real-time, Web-based system management tools, including the ability to dynamically load new and updated task definitions, without requiring a server restart

### 'Webject' and Template Libraries

- Create webjects, or function tags, to enable the development of new application and integration functionality without the need to understand low-level APIs or programming languages
- Manage webjects to create generic APIs, define display formats, and describe computational operations external to any of the applications
- Automatically map database schemas and object models into departmental applications
- Utilize template sub-elements to define the correlation to business objects and tasks such as "Bill-of-Materials" or "Create Part"
- Work with sample library templates that can be easily customized or extended to meet specific business needs

### Easily Transfer Windchill Information to ERP

- Utilize ERP Connector – a set of capabilities included within Windchill Info\*Engine – to export Windchill information, such as parts, Bills-of-Materials (BOMs), Enterprise Change Notices (ECNs) and documents
- Choose from a variety of distribution targets, including ASCII file, email, FTP and Web Service
- Operate existing routines to then import data into user's ERP or MRP system
- Use Info\*Engine's services as a foundation for the optional Windchill ESI module to integrate to SAP® or Oracle® Application

### Optional Windchill Info\*Engine Adapters

The following adapters are additional modules that can be used with the Windchill Info\*Engine server.

<b>Windchill Info*Engine DOORS® Adapter</b>	Enables companies to integrate their requirements management processes and data with Windchill and other applications by interacting with the Telelogic® DOORS application.
<b>Windchill Info*Engine Java Adapter Development Kit (JADK)</b>	Allows customer development of new adapters to provide connectivity between the Windchill Info*Engine Server environment and an application's native APIs. For customers who need a unique adapter, this toolkit accelerates the development process by providing the classes and APIs necessary for Windchill Info*Engine Server connectivity and access to Windchill Info*Engine data. This kit is typically used in situations where the target application does not support a standards-based API like Web Services.
<b>Windchill Info*Engine JDBC Adapter</b>	Enables Windchill Info*Engine to connect to data sources that have a JDBC (Java Database Connector) driver. This includes most relational databases, such as Oracle, and most ODBC (Open Database Connectivity) sources, such as Microsoft Excel® or Microsoft Access®, through a JDBC/ODBC bridge.
<b>Windchill Info*Engine JNDI Adapter</b>	Lets you connect to various naming and directory interfaces accessible using the JNDI (Java Naming and Directory Interface) system, including any LDAP-compliant directory service.

#### Web Services: Ready for SOA

- Plug Windchill directly into your Service-Oriented Architecture
- Most Windchill functionality is already exposed through pre-built Web Services accessible through Windchill Info\*Engine
- Easily create new Web Services
- WS-I Basic Profile compliant, and registered by default in Windchill's LDAP service registry
- Independently certified by IBM® through the Ready for SOA Specialty program



#### Platform Specifications\*

- Prerequisites: Windchill PDMLink®, Windchill ProjectLink™, Pro/INTRALINK®, Arbortext® Content Manager™
- Server Operating Systems:
  - Microsoft Windows®: Windows 2003 Server (32-bit and 64-bit), Windows 2008
  - Unix®: Solaris® 10, HP-UX 11i, AIX 5.3
  - Linux: Red Hat® Enterprise Linux 4 (64-bit)



To learn more about Windchill Info\*Engine, please visit our website at:  
<http://www.single-sourcing.com/>

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