

## Windchill® Service Parts™

TRANSFORM EXISTING ENGINEERING AND MANUFACTURING PRODUCT INFORMATION INTO HIGH-QUALITY, ACCURATE AND TIMELY SPARE PARTS INFORMATION

Windchill Service Parts defines spare parts & service kits and creates the associative, interactive service information used throughout a product's serviceable lifecycle.

Faced with unprecedented economic and competitive challenges, today's manufacturers are under greater pressure than ever to reduce costs, heighten profitability and establish competitive advantage. Accordingly, the sales and service aftermarket is increasingly becoming recognized as a critical driver of business success—with service and support operations rapidly transitioning from cost centers to revenue/profit centers and emerging as competitive differentiators. Inherent in this new service-oriented perspective is the awareness that product usability and performance directly impact manufacturer profitability. Consequently, accurate spare parts information is critical in helping successfully operate and service products throughout their lifecycle.

Unfortunately, many manufacturers experience serious "disconnects" between their engineering and service environments that severely compromise—or outright prevent—the timely creation and flow of high-quality, accurate spare parts information. Lacking such information, field service personnel often order and stock the wrong parts, take unwarranted actions that jeopardize parts revenue opportunities and, most significantly, fail to repair or service products properly—resulting in dissatisfied customers with weakened brand loyalty.

Windchill Service Parts enables companies to leverage their engineering and manufacturing design data to create high-quality spare parts information. Specifically, Windchill Service Parts facilitates the creation, management and delivery of the most up-to-date, accurate and relevant spare parts service information in the form of a Service Bill of Material (sBOM). Windchill Service Parts defines spare parts information for every product configuration and enables the automated delivery of parts information throughout the product's serviceable lifecycle.

In reusing and repurposing engineering and manufacturing data for the service environment, Windchill Service Parts maintains associativity links between the upstream source BOM (eBOM or mBOM) and the downstream BOM (sBOM). Such associativity aligns service content with the original product definition—ensuring the accuracy and integrity of service information, since any changes made on the engineering side can be quickly identified and incorporated on the service side.

Windchill Service Parts transforms an engineering or manufacturing Bill of Materials into an associative sBOM; creates Parts Lists; automatically generates 2D/3D technical illustrations and accompanying callouts for the Parts Lists using Creo® Illustrate; associates Parts Lists to a product-centric view of the service information; delivers parts information electronically via Service Center; and generates parts catalog publications to print or electronic format using Arbortext® Publishing Engine.

## Key benefits

### Maintain Up-to-Date Spare Parts Information

- Build associativity to engineering or manufacturing product data to ensure up-to-date serviceable parts information
- Enhance user confidence concerning service information accuracy, given the information's tight association with source engineering/manufacturing product definition

### Enhance Service Parts Relevance

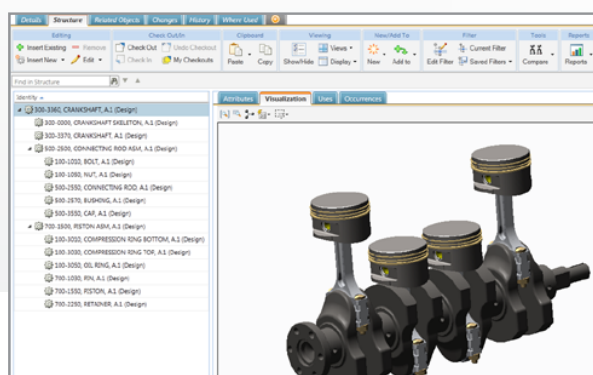
- Define Applicability rules for spares so the correct serviceable part required is available for every product configuration and operating condition

### Increase Efficiency & Productivity of Parts List Authors

- Generate Parts Lists for a system from sBOM and define catalog-specific information
- Accelerate illustration creation by automatically generating interactive 2D & 3D representations of Parts Lists Support work-in-process collaboration

### Simplify and Improve Change Management Processes

- With associativity, changes on the engineering parts are automatically flagged on the service side and can be quickly incorporated and reflected in updated Parts Lists
- With an enterprise level of deployment of Windchill, Engineering can perform extensive impact analysis to assess the impact of a design change on services before authorizing/issuing the change



Generate service bill of materials (sBOM) from eBOM or mBOM

### Enhance Efficiency & Effectiveness of Support Organizations and End-Users

- Enable quick identification of the specific parts required for repair and service procedures
- Reduce time and/or effort required to repair/service a product by providing accurate and up to date spare parts information to field personnel

## Features

### Leverages Functionality from Windchill Service Information Manager

- Leverage Information Structures and Publication Structure concepts from Windchill Service Information Manager to organize service parts content and generate parts manual
- Applicability rules defined in Windchill Service Information Manager can be leveraged to enable publishing and delivery of spare parts information for every product configuration

### Transforms Upstream Source eBOM or mBOM into Downstream Associative sBOM

- Transform existing Engineering and Manufacturing Bill of Material into Service Bill of Material using easy to use tools from Service Parts
- Reuse Part number from Engineering or generate new part numbers specifically for Services, maintaining associativity with the corresponding upstream parts.
- Populate sBOM by:
  - Identifying parts that are serviceable "as is" from the upstream BOM by simply moving them to the sBOM side
  - Creating new parts that are specific to service side only (e.g., hardware kits) and don't exist on eBOM/mBOM side

### Generates Service-Specific View of the Product (sBOM)

- A list of all spare/serviceable/replaceable parts required to service a product throughout its lifecycle
- Represent entire product or a subassembly
- Include Applicability rules and key attributes to define serviceability

- Windchill Service Parts automatically generates visualization/representation specific to an sBOM based on Engineering CAD data

#### Creates Parts List

- Parts List Author leverages sBOM to create individual Parts Lists and attributes
- Parts List Author stores new Parts List in the Information Structure with other related service information
- Parts List can be generated by collecting parts from multiple sBOMs
- Parts List can be overloaded with their own applicability rules to provide product configuration specific parts information to users

#### Generates 2D/3D Illustrations & Accompanying Callouts

- Information authored in Parts List becomes source for 3D Technical illustrations and callouts
- Leverage Creo Illustrate's seamless integration with Windchill Service Parts to automatically generate illustration data and callouts associated with the Parts List
- Automatically generate links between parts in the Parts List and associated 3D illustration to make the part identification easy for service technicians when delivered electronically

#### Automatically Creates Representations for Parts List

- Dynamic representation of Parts List automatically generated based on the parts added to the Parts list and acts as a source of technical illustration
- Static representation in a PDF format can be generated for review and/or mark-up purposes

#### Publishes and Delivers Parts Service Information

- Adds Parts List to Information Structure; that provides product breakdown in terms of major systems, sub-systems and options
- User leverages Information Structure containing Parts List along with Applicability rules to author Publication Structure for a Parts Catalog

- Uses Arbortext Publishing Engine to deliver parts service information in print format (PDF) or interactive electronic format

#### Streamlines Change Management Processes

- Highlights changes to source eBOM/mBOM in the downstream sBOM and provides tools to quickly incorporate appropriate changes
- With end to end associativity, simplifies updating of associated sBOMs, Parts Lists, illustrations and parts catalogs

#### Requirements

- Windchill 10.0

#### Integration with PTC Software

- Creo Illustrate 1.0
- Arbortext Publishing Engine 6.0
- Windchill Service Information Manager
- Arbortext IsoDraw
- Arbortext Editor 6.0
- Creo View MCAD
- Creo View ECAD
- Creo Elements/Direct Modeling
- Creo Elements/Direct Drafting

#### Learn More

For more information about Windchill Service Parts and Windchill Service Solutions, please visit our website <https://www.single-sourcing.com>

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