

Windchill Sourcing *FACTOR!* White Paper

Leveraging the Internet for part and supplier standardization



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TODAY'S BUSINESS CHALLENGES

Companies and their products continue to grow in complexity, creating new challenges for businesses competing in dynamic global markets. Agility has become critical in allowing companies to take advantage of new business opportunities and the latest technical innovations. To improve agility, companies have turned to their suppliers and partners to contribute larger portions of their products. As a result, as much as 40 to 70 percent of a typical product uses sourced components, making part procurement a leading business expense. To continue to compete effectively, companies must find ways to standardize their sourcing practices and part selection procedures. Such standardization will let them avoid part proliferation, which is one of the largest obstacles to profitability.

The Windchill® Sourcing Factor! lets companies standardize the process of selecting parts and suppliers and optimize the inbound supply chain. All participants in the selection process can rapidly identify reusable parts, commercially available parts, and preferred suppliers by using this robust set of flexible, Web-based applications. With its webcentric architecture, this solution is optimal for standardizing parts and suppliers across product lines, business units, and the supply chain. It offers specific solutions to a wide range of manufacturing challenges, including the following:

- **Continuously changing parts and suppliers**
The supply chain is increasingly a dynamic entity, with businesses seeking suppliers opportunistically for each new project. Change has become the norm—parts are updated, superseded, and eventually become obsolete; suppliers fail, merge, and are acquired; better business opportunities emerge. Without a method for standardizing and consolidating part and supplier information, these supply chain dynamics can create inconsistent part and supplier selection processes, resulting in excessive part proliferation and increased product costs. To leverage the latest business opportunities, it is critical that companies provide their employees with continuously updated information on preferred parts and suppliers.
- **Fragmented part selection and buying practices**
Rapid business expansion, mergers, and acquisitions have created fragmented part selection and buying practices. No centralized source of information can be accessed to determine the best parts and suppliers. The result is an excessively complex supply chain where the same parts are purchased from different suppliers at varying discount rates and then are assigned multiple part numbers which have to be tracked throughout the product's lifetime. Companies must standardize part and supplier information to consolidate buying practices, take advantage of volume discount rates, and reduce indirect costs due to high administrative overhead, large inventory requirements, inordinate part tracking, and varying levels of quality among parts.
- **Gap between engineering and procurement**
A major contributor to part and supplier proliferation is the lack of coordination between procurement and design. Engineers select parts on the basis of design requirements, whereas procurement professionals look at the business and cost aspects of purchasing and maintaining parts throughout the lifetime of the product. Traditionally, neither party has had easy access to all of the information needed to make informed reuse decisions because that information is spread out across multiple business systems, which have to be accessed individually. In most cases, selecting parts and suppliers on the basis of limited knowledge can have unknown

business consequences, such as part duplication, early part obsolescence, or premature part failures. Employees need a common source of part and supplier information in order to make the best business decisions.

- **Inadequate part adoption procedures**

Engineers often find it easier simply to request a new part than to locate a previously used one. This practice results in a high number of unique parts and increased overall product costs. Typically, most of the tools available to the engineer for identifying parts for reuse are inadequate and resource intensive. Legacy systems are not easily accessible, and catalogs and other paper documents are inconvenient to access and often outdated. Even online sources can be unreliable and out of date. (The only thing worse than creating a new part is selecting one that is no longer available, which causes delays in production while alternatives are investigated.) To succeed in standardizing and reusing parts and suppliers, companies must provide users with a source of information they can access to determine a part's usability, including its previous usage, potential changes, and life expectancy.

THE WINDCHILL SOURCING *FACTOR!* SOLUTION

The Windchill Sourcing Factor! is an ideal solution for reducing global procurement costs as well as product development time and costs. This is accomplished through part and supplier standardization and inbound supply chain optimization. A robust application and tool suite, the Sourcing Factor! provides a common, Web-based source of reliable part and supplier information that is easily accessible to everyone involved in the product lifecycle. As a result, companies can benefit from overall part and supplier reduction and improved enterprise-wide volume price discounting.

- **Standardized source of reliable part and supplier information**

The Windchill Sourcing Factor! consolidates and standardizes part and supplier information from all of the various sources throughout a company to create a single source of reliable product and supplier information for everyone to use. A well defined process ensures the consistency and continued accuracy of the standardized information.

- The Windchill Sourcing Factor! standardization process begins with the definition of a common set of classification and property information. To assist in this process, an industry-accepted universal classification structure can be modified to meet specific company needs. Defining a common set of classification and property structures ensures that the information available throughout the enterprise is consistent.
- Robust tools cleanse a company's existing part and supplier information. Information from legacy systems and proprietary applications can be collected, merged, and cleansed. Duplicate, conflicting, and missing information can be identified, resolved, and then bulk-loaded into Windchill, using the previously defined classification structures. Parametric Technology Corporation (PTC) and its partners provide a full range of services to assist companies with the data cleansing process.
- Once information has been loaded into Windchill, parts and suppliers are ranked by preference. A standard ranking system is provided, as well as the ability to create customer-specific rankings. Ranking ensures that preferred sources, either internal or commercial, are

identified when evaluating parts and suppliers for reuse.

- **A single, complete part definition**

As one of the Windchill Factor! e-Series™ solutions, the Windchill Sourcing Factor! generates information and maintains it within a common part definition. Having this definition as a single source of consistent information closes the information gap between all the functional disciplines within an organization. Engineering, procurement, and other groups can select a part or supplier on the basis of design and business criteria and have the information they need to make the best reuse decision.

- **Change management and process automation**

Understanding when information changes is critical in supporting ongoing business activities. The change control, workflow, and lifecycle management capabilities of the Windchill Factor! e-Series enable the prompt communication of events among all participants. Part and supplier changes can be automatically routed to affected individuals and systems for timely evaluation and updating so that the sourcing information for new and existing products is kept continuously up to date.

- **Rapid identification of reusable parts and alternate suppliers**

A key factor for successful part and supplier standardization and consolidation is the acceptance of the solution by the employees making the decisions. The Windchill Sourcing Factor! provides an easy to use, customizable, Web-based interface for rapidly identifying reusable parts. Individuals are presented with information in the context appropriate for their business activities and have easy access to the related design and business information necessary to base their decisions. The Sourcing Factor! also lets users take advantage of flexible design requirements by loosening noncritical selection criteria and so allowing evaluation of alternatives that may not otherwise have been considered.

- **Extensive online content libraries**

Online content libraries provide access to up-to-date commercial part information. To ensure accuracy, these libraries are built, quality controlled, and maintained through PTC partnerships with suppliers. Online content libraries contain industry-accepted classification structures, normalized property values, part specification sheets, and 3D CAD geometry. Users of the libraries have access to extensive commercial part information and save a significant amount of time by downloading the associated 3D CAD models.

Summary

The Windchill Sourcing Factor! reduces procurement costs and boosts purchasing power, giving users the information they need to make smart business decisions when selecting parts and suppliers. Companies can decrease overhead, consolidate orders for volume discounts, and profit from preferred supplier relationships, while achieving the agility to compete in today's global market.

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