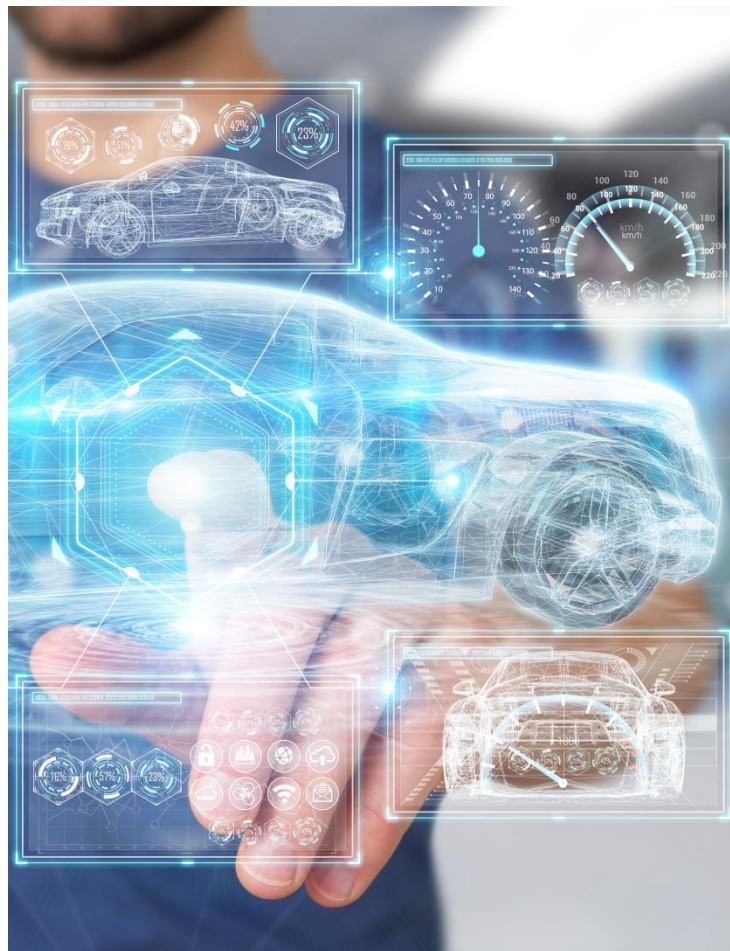




PRODUCT**DATA**COMMAND

Product Information Management Software and Solutions Capabilities Overview



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Executive Summary

Retailers, manufacturers, distributors, wholesalers, and brokers are continuing to leverage technologies that improve supply chain requirements through more efficient means for exchanging mission critical data internally and externally.

Product information management (PIM) is a fast-emerging mission critical process whereby many constituents within the supply chain are searching to drive and develop standards that deeply improve the quality of product data and innovation within the supply chain. Industry expectations are that all companies within their industry's value chain will need to have some version of data synchronization both internally and externally, and product information management will be a core requirement in conducting business.

The Product Information Management system must give users the ability to:

- ❖ Integrate the PIM to internal systems.
- ❖ Aggregate data from existing internal systems such as the ERP system into the PIM's central repository.
- ❖ Manage the corporate product information asset including structured data, images, descriptions, etc.
- ❖ Syndicate and synchronize data that resides in the central repository to all required internal and external systems and targets.
- ❖ Use automated process maps to manage the business processes and user activity related to the collection, management and syndication of company product information.
- ❖ Easily and effectively search the central repository and provide an audit trail of functions performed in the system.
- ❖ Have robust reporting capabilities.



Product Data Command Approach

Our commitment is to deliver Business Value to you rapidly

First and foremost is our commitment to partner with your team to help drive business value from the PIM solution. This will be accomplished by leveraging yours and our best practices, our deep industry knowledge and the exceptional capabilities associated with Product Data Command, Product Data Commander's product information management solution. We also provide customization services to tailor the application to your needs.

We believe that our unparalleled experience and our extensive work with our customer base give us the ability to deliver a comprehensive solution at an extraordinary value.

Specifically we bring:

- ❖ **Domain Expertise** – We have extensive domain expertise in Retailing, Consumer Goods, Consumer Electronics & High Technology, Healthcare & Life Sciences, MRO/Industry Products and Hard Goods Distribution. We understand the business and the extended supply chain issues related to these individual industries and the specificity of the products within each.
- ❖ **SAAS** – With our Software As A Service model we are able to quickly deliver value to our customers. This approach allows us to provide the most cost effective solution the industry has to offer. New features and functionality are constantly being added to the solution and the SAAS model gives our customers access to this new functionality as it is available.
- ❖ **Lower Implementation and TCO Costs** – Our solution is easily configured by us and/or our end users. This accelerates user adoption and time to market. We work closely with our customers to deliver the value they expect and require to meet their ever changing business needs.



Product Data Commander Key Features

- ❖ Leverage key information making it more accurate and valuable to business processes.
- ❖ Delivers rich internal product information to Web sites and e-commerce applications, printed documents and marketing collateral, kiosks and mobile devices as well as directly to customers and trading partners through various access points.
- ❖ Streamlines business processes with automated process maps.
- ❖ Helps companies efficiently deploy their product and service information across countless customer, partner and employee touch points.
- ❖ Synchronizes information internally with existing enterprise systems and externally with business and trading partners.
- ❖ Enables customers to implement data synchronization initiatives through data pools and directly with suppliers and customers.

Product Data Commander Core Components

Product Data Commander is comprised of the following core modules:

Product Information Management (PIM)

- ❖ Product Management
- ❖ Import
- ❖ Export
- ❖ Process Maps



Role Based Security

Access to all aspects of the system is controlled via a powerful and fine-grained role-based security model. Privileges and permissions associated to user-defined roles. Each user is then assigned security roles.

The role-based security model governs what functions a user, including internal and external parties, can perform on the data within the system (e.g. edit products, create attributes, etc). In addition, responsibility for maintenance on subsets of products can be based upon a specific vendor or category. For example, a user can be defined whose role allows them to perform edits; that user can be assigned that responsibility only for products belonging to vendor XYZ or only for products that belong to a particular category. Furthermore, which attributes this user can edit can be filtered using "Product Data Sets." This means that this user will only be able to perform functions they are authorized to perform. They will be further restricted to only that data for which they can perform these functions.

Scalability

User interfaces must be responsive to be usable. Simple GUI + database systems will fail to scale because all processing must be accomplished when the user "clicks OK." The result is that as a system grows in size and complexity, the user interface can become unresponsive – and useless or counter-productive. PDC solves this problem by having non-critical tasks performed in the background. This prevents unnecessary delays at the user interface.

Integration

Because of the Import and Export capabilities integration between PDC and other systems, such as websites and other internal enterprise systems, becomes very easy.



Product Management

Product Management provides a wide range of functionality and variety of capabilities to business users, without requiring programming. The various functional areas are described below.

Category Maintenance

Users can easily organize products into categories, such as:

Computer Products

Notebooks

Business

For each category of product (such as "Business" in this example), users can define the attributes that apply to that specific category of products. This organization of category specific information specifies the characteristics for the type of product, such as which attributes apply, which are required, an image to represent the group of products, associated industry or internal category code(s), etc. Category managers can also control the following for each product type:

- ❖ Updates to product data are made in only one place and changes then automatically apply to every product data set in which the product appears.
- ❖ Users are in complete control over what characteristics products must have in order to maintain data quality and consistency.
- ❖ No limits on the number and complexity of category specific templates a user defines.
- ❖ No limits on the number of attributes per Category or Product Type.
- ❖ Define and manage unlimited numbers of product attributes.
- ❖ Product Description Set feature gives users the power to define rules for automatically generating accurate and consistent product descriptions made up of any combination of static text and specific product attributes.



- ❖ External URL attributes provide for unlimited rich media objects to be associated with products. These can be CAD/CAM drawings, Word or PDF documents, etc. and may be stored on web, file, ftp, digital asset management, image management or other servers or systems.
- ❖ Rich Text attributes allow users to create attributes that use advanced formatting.

Attribute Management

PDC allows business users such as category managers to easily define what attributes are stored for a given category of product. For instance, an attribute called "Pages Per Minute" might apply to a printer, but not to printer ribbon. Parent attributes can be defined that are inherited by all categories of products and are appropriate for information that applies to all products.

Attributes can each be a member of one or more product data sets. These product data sets are easily set up by business users and have a variety of purposes. Product data sets simply provide a convenient method to specify a set of attributes rather than having to repeatedly specify attributes individually. Product data sets are then applied to define content (this product data set will include these attributes), security (this role or group of users is allowed to edit these attributes) and other capabilities such as associating similar products or filtering product exports based on attribute values.

Product Maintenance

Within this area of the application, users can easily work with a single product or a large group of products. Products are first selected via a variety of search capabilities:

- ❖ Free-form text searches with wildcards
- ❖ Manufacturer
- ❖ Part Number (with wildcards)
- ❖ Product State (e.g., "Ready for approval")
- ❖ By Category and Parametric (e.g., Valves with 2" openings and made of brass)

Once a set of products has been selected, a number of powerful capabilities are available to users with appropriate permissions:



- ❖ Side-by-side product comparison - with differences highlighted
- ❖ Print – Dynamically generate an HTML or PDF electronic print formation, using a layout of your design.
- ❖ Group Edit – Field based (e.g. for selected products, in all cases where the Color field is Red, change it to Crimson).
- ❖ Search / Replace – across fields, descriptions, etc. Finds and optionally replaces substrings. Includes options for case sensitivity and change confirmation.
- ❖ Move – allows you to easily change the product(s) categorization (by assigning to a different product template). This can be useful if you are expanding your product lines or have acquired a new division, for example.
- ❖ Delete/Mass Delete – To remove products from the system.

PDC maintains relationships between products and other objects stored in the repository. Within the Product Maintenance area, users can easily view, define and edit the following relationships for a product:

- ❖ Product Relationships – Define unlimited relationships between a product and other products. For example, if a user was working with a notebook computer, they might define a product association type of “Accessories” and then associate various other products with the notebook, such as an external monitor or docking station. Other associations might include “Similar Products,” “Extended Warranty Plans” and “Up-sell” to notebooks with more advanced features.
- ❖ Descriptions – Create a product description pattern that embeds attributes within user defined text. When and if an attribute value changes on a product the description for that item automatically changes.
- ❖ Images/Documents – Attach and unlimited amount of images and/or documents to an item.
- ❖ Style/Variance – PDC allows users to create templates of a type of product and from that template easily create actual SKUs that inherit the values of the template and are unique only by their variance (i.e. color, size, width, etc.)



- ❖ Packaging – PDC allows users to maintain the packaging hierarchy for products. Using an approach similar to Style/Variance users can create an “individual or each” item. They then can create the subsequent packaging variations for that item. The new packaging configurations would inherit the characteristics of the “individual or each” item and become unique by changing the varying characteristics (i.e. weights, dimensions, etc.).
- ❖ Company (Partner) Associations – Associate product/company/trading partner with products. Such relationships can also carry separate part numbers for each company.

Source/Target Maintenance

An integral component of product information management is the management of relationships of products to their source and/or targets. Thus, PDC provides for the management of Source/Target information. Source/Targets can be any type of organization or system that users need to track:

- ❖ Suppliers
- ❖ Vendors
- ❖ Customers
- ❖ Divisions
- ❖ Subsidiaries
- ❖ Web Sites
- ❖ Enterprise Systems



Measurement Units, Standards and Conversion Factors

Business users can also maintain measurement units, standards and conversion factors. An example is that Length is a unit type, and the meter is a standard unit of measure for length, and you might want to maintain the conversion factor between meters and other units of measure such as millimeters and inches.

View Only

PDC also provides an easy to use, web-based central place for internal or external users to go for product information. It can become a read-only application, and as with the rest of the system, only provides users with access to data they have permission to view based on their roles defined in the role-based security model.

Users select from one or more Product Data Sets (based on those that they have permission to view) and can then locate products using a variety of techniques:

- ❖ Free-form text searches with wildcards
- ❖ Manufacturer
- ❖ Part Number (with wildcards)
- ❖ Date of product add or change (before, after, between dates)
- ❖ By Category and Parametric (e.g., Valves with 2" openings and made of brass)

Once a set of products has been returned by one of the above searches, the products are displayed along with thumbnails of the product images. Users can then select one or more products and perform these actions:

- ❖ Side-by-side product comparison with differences highlighted
- ❖ Dynamically print an electronic print formation, using a layout of your design
- ❖ Find Similar products to a selected product based on pre-defined or user-defined criteria
- ❖ Group edit



Business Process Management

Using custom process maps PDC enables organizations to further automate processes related to creating, managing and synchronizing of internal product information dynamically across the supply chain in order to cut costs, deliver products to market more effectively, and improve customer service.

PDC includes a comprehensive method that allows users to create automated process maps to:

- ❖ Standardizes business processes – Provides knowledge transfer and regulatory and certification compliance
- ❖ Tracks and manages the progress and task aging – Provides track-able processes and increased timeliness of processes (e.g., reduced time to market)
- ❖ Easily supports complex processes maps, – Fits your business processes and allows for change.

Import

Import is responsible for aggregating, cleansing, and standardizing product data being brought into the PDC data repository. It employs technology that rationalizes the data. Sets of product data can be manually uploaded (such as from CSV files or XML files) or can be automatically processed as they arrive from other systems.

Multiple sets, or batches, of data can be processed simultaneously from different sources and in different formats. For each set of data, business rules can easily be applied.

Incoming data flows through a data process that performs the mapping. For example, the Import Manager will resolve any product, manufacturer and attribute associations.



Export

Export allows business users to easily define synchronization / syndication tasks with other systems. Export is highly configurable and serves as the cornerstone for your organization to successfully perform data syndication with your internal users, customers, and businesses partners.

Export Destinations and Notifications

By slightly customizing the application to your internal requirements you can specify the destination of your export, including a specific file name, website, FTP server, or other server/location that will consume your product data. After an export is complete, you can setup notifications to email the appropriate parties that the export is complete.

Custom Exports

Using Product Data Commander's development group you could customize an export to allow an external system to properly receive and use the data included in your export, you could define data mappings to ensure its usefulness. For example, if you have an attribute called "color," but the system you are exporting to calls it "CLR," you can map those attribute names as part of your export definition. This will export the attribute as "CLR," and ensure that the other system using your data will properly receive, recognize, and use the data.

Scheduling

Once an export is defined, this definition can be saved and scheduled to occur using the very flexible job scheduling interface provided by the Export Manager.