ORACLE PRODUCT INFORMATION MANAGEMENT DATA LIBRARIAN

Consolidate all product information (*with PIM Data Hub)*
- Catalog and Attribute Management
- Item Relationship Management
- Document Management
- Configurations Management

Import Data and Synchronize Multiple Systems
- Data Import Workbench
- Optimized bulk import through staging tables
- Spreadsheet import for easy upload and maintenance
- Rich set of APIs and business events for integration

Manage Data Quality
- Matching and De-duplication
- Data Validation Rules
- New Item Definition Workflow
- Change Management

Securely Access & Search Information Repository
- Role-based Security
- Keyword and Parametric Search
- Catalog Browse
- 360 degree view of product information

Syndicate & Publish Product Information
- Multi-lingual template based XML publishing to publish information to multiple formats

The Oracle® Product Information Management (PIM) solution provides customers with tools to centralize all product information from heterogeneous systems, creating a single product repository that can be leveraged across all functional departments. Oracle's PIM solution helps customers eliminate product data fragmentation, a problem that often results when companies rely on nonintegrated legacy and best-of-breed applications, participate in a merger or acquisition, or extend their business globally. Market drivers for this type of central management of all product information can be seen in new government and industry regulations such as Restriction of Hazardous Substances (RoHS), as well as retailer mandates around the use of UCCnet and Global Data Synchronization Network (GDSN) standards.
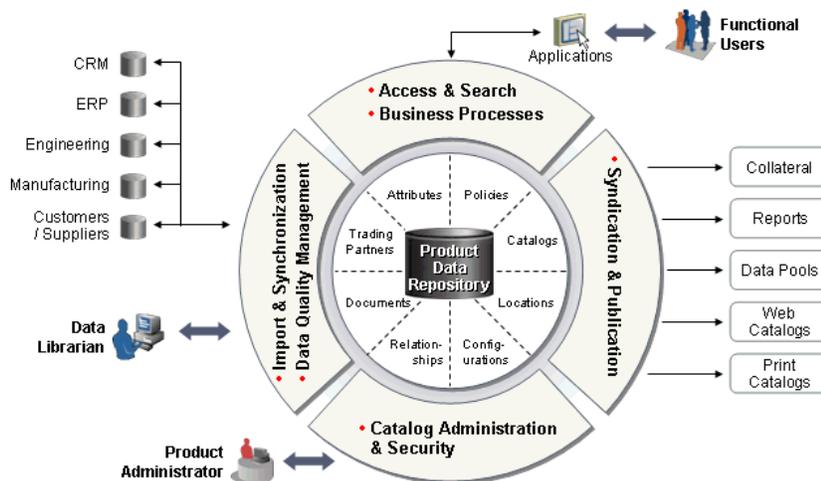

Figure 1: Product Information Management Data Hub Overview

Consolidate All Product Information

Many companies today store product information in numerous fragmented applications scattered across the enterprise. Frequently, this results in data duplication, version inaccuracy, and difficulty in locating information. One of the reasons why e-commerce was slow in taking off was that companies did not have the product content and the publishing tools to make it useful on an ongoing basis. For example, there were no tools that provided the ability to continually change or

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modify offerings in order to accommodate alterations for different markets. PIM Data Librarian solves these problems by providing a repository to manage all your product information:

- Single repository of all product information on proven data modelStore all types of structured and unstructured data for an item, including attributes, configurations, documents, policies, relationships (Cross / Up-Sell), trading partners, locations and catalogs

- Unlimited, extensible user-defined attributes to meet the needs of the enterprise in terms of product form, fit, function or sales and marketing definition
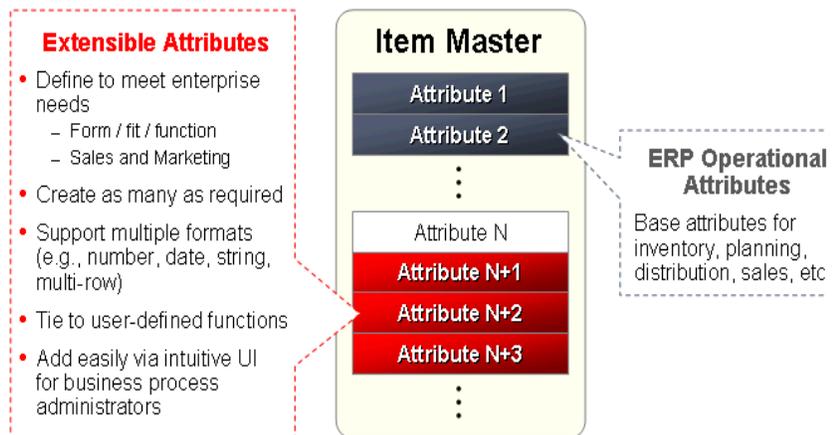

Figure 2:

- Pre-defined operational attributes for streamline management of operational systems

- Classify all products and components in primary item master catalog with user-defined attributes for each item category and attribute inheritance for easy maintenance

- Assign items to multiple alternate catalogs to support different business activities, for example define a supplier catalog, web store catalog or UNSPSC classification hierarchy

- Integrated bills of material (BOM) management to centralize product structures from multiple systems, including Engineering BOMs from design systems, Sales BOMs from sales configurators, Manufacturing BOMs from global manufacturing plants, and Service BOMs from service organizations.Define packaging hierarchies to view and manage homogenous or heterogeneous packs.

Import Data and Synchronize Multiple Systems

PIM Data Librarian allows you to establish common enterprise-wide product information integration business processes. Product information can be rapidly loaded into the repository via bulk processing open interface tables for large volumes or via excel for smaller volumes. The data import workbench provides tools for a data librarian to streamline first time and exception-based matching and

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de-duplication of product information. PIM Data Librarian includes a large number of interface points documented in the Oracle Integration Repository so you can easily integrate it with any other system, whether legacy or custom, internal or external trading partners. Interfaces have been built to open J2EE, PL/SQL and/or Web Services standards. Integration can be further simplified with Oracle Application Server 10*g*, which offers specific connectors to leading software packages and technologies. PIM Data Librarian's import and synchronization solution allows you to:

- Rapidly load product data into repository via open interface tables for optimized bulk processing

- Simplify upload and change of product information via Excel for business users

- Stage, approve and match data to create a single, blended record

- Synchronize a single blended record from the product data repository using business events to drive accurate information to the extended enterprise

- Easily view a rich set of APIs for synchronization via a comprehensive integration repositorySynchronously or asynchronously synchronize multiple systems via embedded integration services such as public APIs and business events

Extensible integration framework to other systems through synchronous or asynchronous connections: [*]

- Build cross-application business processes with easy to use Oracle Application Server 10g BPEL designer, engine, and extensible WSIF binding framework

- Connect to trading partners using B2B integration framework, or to other internal applications or systems using 250+ pre-built adapters

- Deliver reliable, robust messaging and validation, and business activity monitoring throughout the enterprise using Oracle Application Server 10g

Manage Data Quality

Controlling product data quality is important to all internal and external business processes that reference product data. Poor product data quality is often caused by the incomplete execution of changes within fragmented information systems, or slow "open loop" communications such as e-mail, fax, or telephone. PIM Data Librarian provides data quality tools and an advanced workflow and web-based based change management system to streamline collaborative, multi-company change processes and maintain clean, accurate enterprise product data. PIM Data Librarian's data quality and change management solution provides the capability to:

- Match inbound product data using customizable engine to identify duplicates and automate future matching

- Merge item records on import to prevent duplicates and maintain a single

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[*] Please refer to Oracle Application Server 10g Data Sheet

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source of truth master product record

- Auto-generate item numbers and descriptions to normalize product data by reducing manual entry

- Define attribute validation rules to improve data quality at point of entry

- Effectively manage new item definition and approval to prevent duplicate items and enforce repeatable best practices

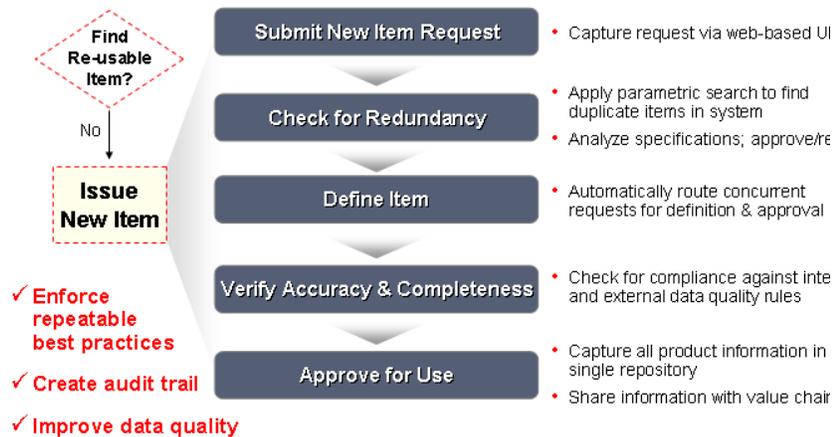- Create customizable workflow-driven product change process to eliminate errors and delays

Figure 3:

Securely Access and Search Information Repository

The dual trends of increasing cross-company collaboration and standards for corporate IT governance raise concerns about protecting proprietary information while sharing it with trading partners. Enabling secure high-speed searches across huge volumes of data for all internal and external users heightens issues around protecting intellectual capital without compromising speed.PIM Data Librarian provides advanced data-level security and search capabilities to address these dilemmas , whilst providing users a 360-degree view of the product data through:

- Role-based access via browser, based on job function, product responsibility and type of data

- Catalog browse and keyword based or parametric search to instantly locate items

- Unified product catalog search to quickly find the best component for re-use

- Rapid part search and granular security achieved through scalable optimized database indexes and queries

- Rapidly apply changes across multiple items using mass maintenance tools

- View and manage all information for a product from a single user interface

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Figure 4: Item Catalog

Syndicate & Publish Product Information

Once your internal system has been consolidated through PIM Data Librarian, you can establish standardized business processes throughout your entire enterprise based on accurate and up-to-date product information.   Efficient synchronization of accurate product data with customers and suppliers is critical to reducing errors, and the costs of large-scale implementations of collaborative design, production, and service business processes throughout your extended supply chain.

Syndicate

PIM Data Librarian provides the foundation for the Oracle Product Data Synchronization for GDSN and UCCnet Services (PDS) product, which directly supports the synchronization with the Global Data Synchronization Network (GDSN). PDS provides a framework to syndicate product information to multiple audiences in a variety of industry-standard and user-defined XML and delimited text formats, on both an ad hoc and scheduled basis. Oracle PDS provides the capability to:

- Share standardized data with trading partners via syndication to GDSN / UCCnet

- Ensure compliance to GDSN / UCCnet standards with pre-built attributes and validations

- Manage syndication from a single dashboard

- Accurately transfer data via certified, pre-packaged messages with acceptance / exception handling and status notification

Publish

Integration of PIM Data Librarian with Oracle's XML Publisher tool provides a template-based, easy-to-use publishing solution for product information. XML Publisher technology is based on the W3C XSL-FO standard to transform XML data into an FO object, which contains both data and formatting information that can then

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be further transformed to an output format such as PDF. Utilizing a set of familiar desktop tools such as Adobe Acrobat and Microsoft Word, users can create and maintain their own report formats based on development delivered XML data extracts. XML Publisher will then convert these documents to the XSL-FO format. PIM Data Librarian's publishing solution allows you to:

- Easily author, manage, and publish product information via template-based XML publishing

- Publish product information to reports, datasheets, print catalogs, labels, MSDS, etc. in multiple formats, including PDF, XML, HTML or RTF/Word
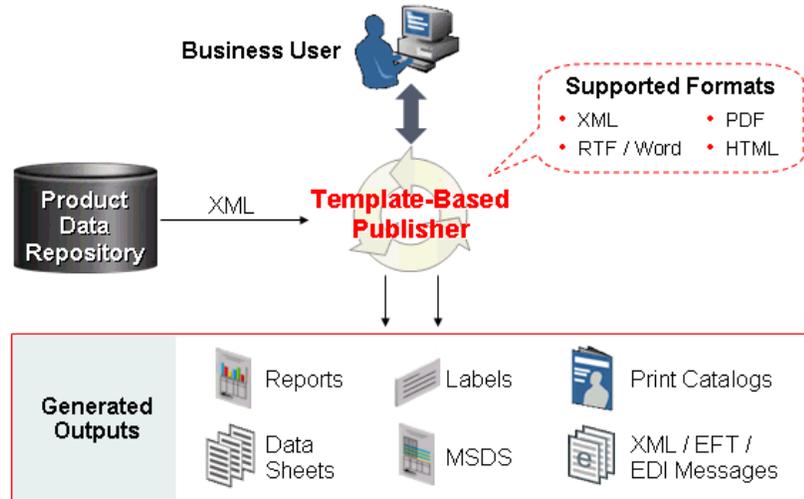
Figure 5:

Oracle E-Business Suite—The Complete Solution

Oracle E-Business Suite enables companies to efficiently manage customer processes, manufacture products, ship orders, collect payments, and more—all from applications that are built on unified information architecture. This information architecture provides a single definition of your customers, suppliers, employees, and products—all important aspects of your business. Whether you implement one module or the entire Suite, Oracle E-Business Suite enables you to share unified information across the enterprise so you can make smarter decisions with better information.

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