



User Guide

QAD Product Information Management

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Change Summary

The following table summarizes significant differences between this document and the previous version.

Date/Version	Description	Reference
April 2012/PIM 7.3	Added Equivalence product association.	page 93

Introduction

This chapter provides an introduction to QAD PIM. This chapter discusses the following topics:

QAD Product Information Management **2**

Key Features and Functions **2**

Concepts **3**

Planning a PIM Implementation **4**

QAD Product Information Management

QAD Product Information Management (QAD PIM) ensures that a company's product attributes are accurate and complete - regardless of how or where they are used across the enterprise.

Product information is stored in various enterprise applications throughout different geographies, operating units and departments ranging from manufacturing to marketing and customer service. Information may vary from location to location, creating discrepancies that must be resolved to enable smooth business-to-business electronic commerce.

QAD Product Information Management solves the problem by gathering information from all locations, integrating it into a consistent format, and storing it in a centralized internal repository that is updated as information changes. Workflow-enabled business processes enable the company's information creators to enter and modify product information as needed to keep information current.

QAD PIM is a foundational infrastructure component that provides your organization consistency and discipline to drive a competitive advantage. QAD Product Information Management ensures that all product information is kept consistent across all information channels while also offering the important benefit of retaining departmental autonomy. The result: a single version of product truth.

The Value of QAD Product Information Management

- Enable the use of product information to the right user at the right time across your enterprise
- Remove duplicate product information throughout the organization
- Provide Business Process discipline and relevant structure to product information within a company and across their value chain
- Manage product-centric information and relationships between customers, suppliers and the enterprise

Structured Data to Support High Flexibility

Product Information Management (PIM) organizes your product information flexibly and efficiently using a hierarchy of templates and template groups. Templates refine and expand inherited attributes that are applied to product definitions. Product definitions are then published to the locations where they are used through catalogs. Catalogs expose products for use, edit, and export and allow you to define the product parameters shown.

Product Information Management is a browser-based application. PIM provides platform independence and supports all JDBC compliant databases (Oracle, SQL Server, DB2 for example). PIM uses XML for data manipulation and exchange with external applications.

Key Features and Functions

Product Information Management offers the following features:

- Supports unlimited numbers of attributes per product, including images
- Sets up real decision support with a single, accurate product master (for example spend per product or spend per category)

- Supports customer-specific and/or industry-standard (UN/SPSC) product classifications
- Enables side-by-side product comparisons
- Automates data import and maintenance for lower costs and error rates and greater scalability
- Allows imports from multiple sources for single SKU creation
- Offers a powerful search capability including fuzzy search, stemming, and parametric searching based on attribute values
- Provides role-based security

PIM Functions

The PIM product is divided into functional areas to support specific roles.

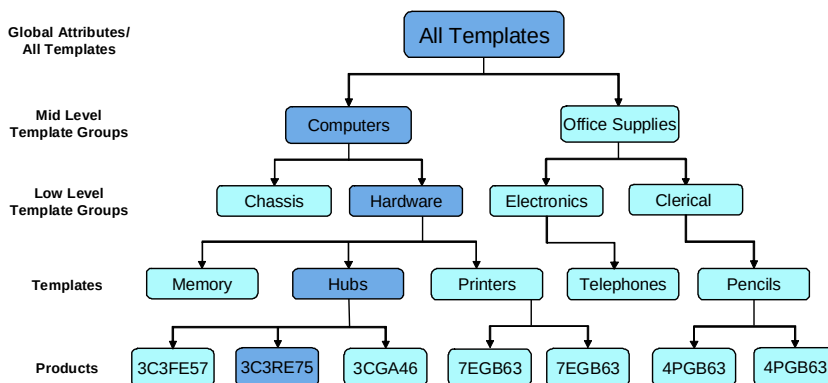
- Import Manager allows you to import product data via external product data files.
- Product Manager allows you to add, view, and edit product data. You can classify products in one or more catalogs.
- Product Viewer allows you to view all the products in a particular catalog.
- Export Manager allows you to export products from a catalog or subset of a catalog.
- Report Manager allows you to define, schedule and deliver management reports.

Optional modules and customizations are available. What an individual user accesses in the product is dependent on their security profile.

Concepts

PIM uses an organizational hierarchy to manage product information. Products inherit attributes from templates, which in turn inherit from template groups.

Fig. 1.1
PIM File Hierarchy



Templates

Data governance is accomplished in PIM using templates, which specify the attributes and their constraints for a class of products. When a product is created or modified, PIM uses the template to ensure the proper fields are filled in with allowed values. All attributes required to completely describe a given product or set of products are grouped together.

Attributes are product or template characteristics. Attributes may be:

- Global: applied to all products and templates
- Template Group: applied to a specific set of templates
- Template: applied only to a specific set of products
- Product: applied only to a specific product
- Product and Template: applied to both products and templates

In addition to defined template attributes, users can create and assign descriptors. Descriptors allow you to assign name-and-value sets to a template group or node. Descriptors have largely been replaced by attributes which are easier to maintain and manage in both templates and catalogs. They remain in the product for purposes of backward compatibility.

Catalogs

Templates are where products live for the purposes of defining constraints. Catalogs are groups of products for viewing and exporting. Catalogs are a more flexible, alternate method of classifying products. They can be used for viewing, mass editing and exporting purposes. Catalogs provide the ability to create product classes and attributes that are exposed to the consumer.

A catalog may be based on a recognized standard for classifying products (for example, UNSPSC, e@class or NEMA) or a proprietary product classification hierarchy used by a specific customer or application.

Product classes are groups of related products. Product classes are organized hierarchically (within specific catalogs) and may be used for searching and navigation, sales tracking, or inventory control. Unlimited numbers of product classes can belong to multiple catalogs.

Products

Products in PIM can be many things depending on where your organization fits in the supply chain. A manufacturer may capture information about raw materials, sub-assemblies and finished goods - all as products which are inter-related. A distributor/packaging house might capture information on the distinct products that are available and all the packaged options. Anything that can be bought, sold, made, shipped, or stocked can be a product in PIM.

Planning a PIM Implementation

- 1 Categorize your products by shared attributes. Define the template hierarchies to support these product definitions.
- 2 Create roles. Identify types of user groups and access needs - security. What roles can touch what data? What roles can use what functions.

- 3 Identify existing product data sources. Develop and test importation methods using extract, transform, load (ETL) tools and the PIM Import Manager.
- 4 Identify consumers of product information (people and systems). Create catalogs of products for specific users and access points.
- 5 Identify external consumers of product information (people and systems). Create export definitions and custom export classes for each.

Using PIM

This chapter provides information about the main Product Information Management interface. This chapter discusses the following topics:

Launching PIM 8

My Profile 9

User Interface 9

Log Out 13

Role Based Security Model 13

Users 17

About 21

Help 21

Once Product Information Management is deployed for the organization, the routine activities are simple and straightforward. Whether you perform these activities each day or on some other cycle, the steps shown below generally describe the routine.

- Use the Import Manager to asynchronously import products, map (standardize) the product definitions, and commit batches.
- Use the Product Manager to create and maintain products with templates and catalogs. You can define and classify product attribute names and values. Also, you can maintain company information and define standard or custom unit information for products.
- Use the Product Viewer to search for and compare products.

The main Product Information Management interface displays four or five tabs in the upper-right section, depending on your user status. All users have access to the My Profile, Log Out, About, and Help tabs.

A system administrator has access to an additional Users tab where they can add and remove users and add and edit the user roles and privileges.

Launching PIM

To log in to Product Information Management, use the following steps:

- 1 Type the Product Information Management URL (given to you by your Product Information Management administrator) in your browser window.
- 2 Log on to Product Information Management.
 - a Type your login name.
 - b Enter your password.
 - c Check Enable Compression if you are accessing PIM across the internet or from a slow intranet connection - contact your system administrator for more information.

Note This can be configured to on, off, or not available.
- 3 Click Login.
- 4 For first time users, modify your profile (name, address, password) by selecting My Profile in the upper right-hand corner of the display.
- 5 For system administrators only, select the Users tab and define users and modify the default roles that ship with Product Information Management. See “Role Based Security Model” on page 13.

Fig. 2.1
Login Screen

My Profile

My Profile allows you to view and edit your personal identification information and provides information about your assigned roles and privileges. For example, your role might be to maintain the catalogs in PIM and your privileges with that role might include modifying templates and catalogs. Additionally, you can change your password.

To edit and view user profile information, from the Product Information Management Interface, select My Profile from the upper-right corner. Provide or change your information as required.

Note Company, Roles and Privileges are maintained by administrators and are only displayed here.

In order to update information, fill in your current password.

When you finish editing and viewing your profile, select OK.

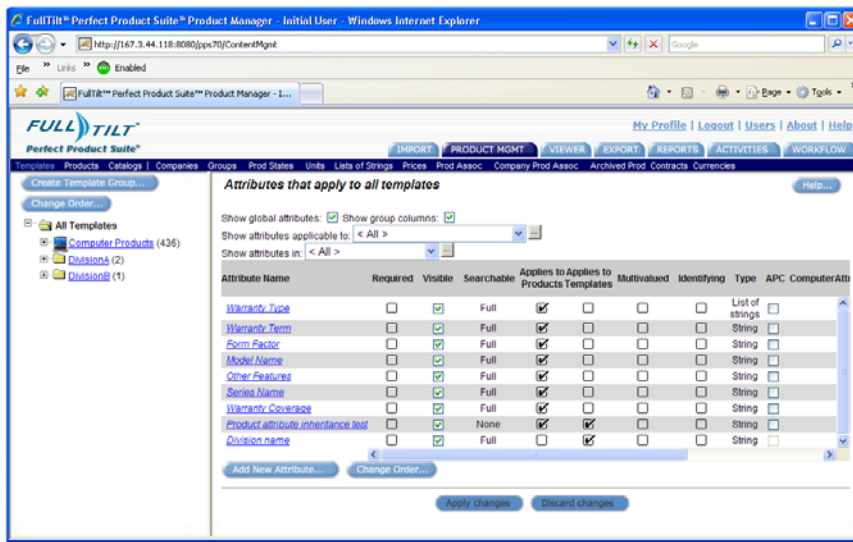
User Interface

Product Information Management is browser based and includes all navigational and functional components, (there is no reliance on tool bar or menu bar functions).

- Tabs switch between major functional areas (for example Import Manager, Product Manager).
- A hierarchical navigation tree appears in the left panel. Select + to expand contents of a level of the hierarchy. Or select a level to go directly to that point in the hierarchy.
- Online help is available by selecting Help. Context sensitive help is available for most screens.
- Role-based security affects the view of each user. In some instances, the Interface is dynamically constructed to avoid showing unavailable functions. See “Role Based Security Model” on page 13.

Warning To exit out of any of the windows select OK or Cancel. To avoid data loss do not use the X in the upper-right corner or the Back browser button to navigate.

Fig. 2.2
Sample Interface



Editing and Selection Tools

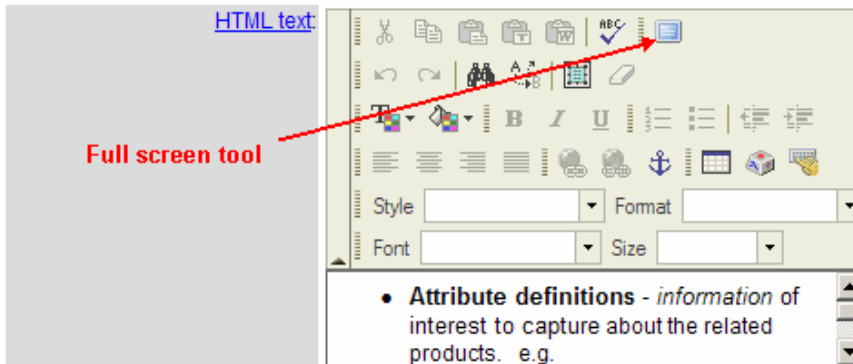
Within the Product Information Management several common tools are used to support selection and editing of data.

- Multi-line HTML editor
- Multi-line text editor
- Date selector
- Date/Time selector

Multi-line HTML Editor

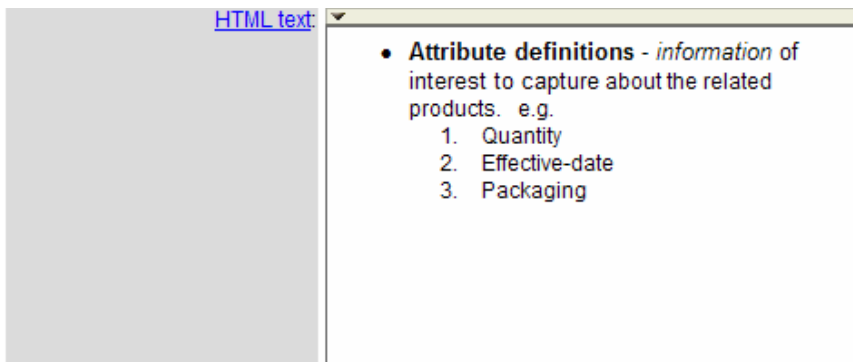
Use this tool to enter HTML markup in data fields that support this type of data. The editor features a tool bar for formatting and spell checking. To use the editor, highlight the chosen text and press the tool on the toolbar.

Fig. 2.3
HTML Text 1



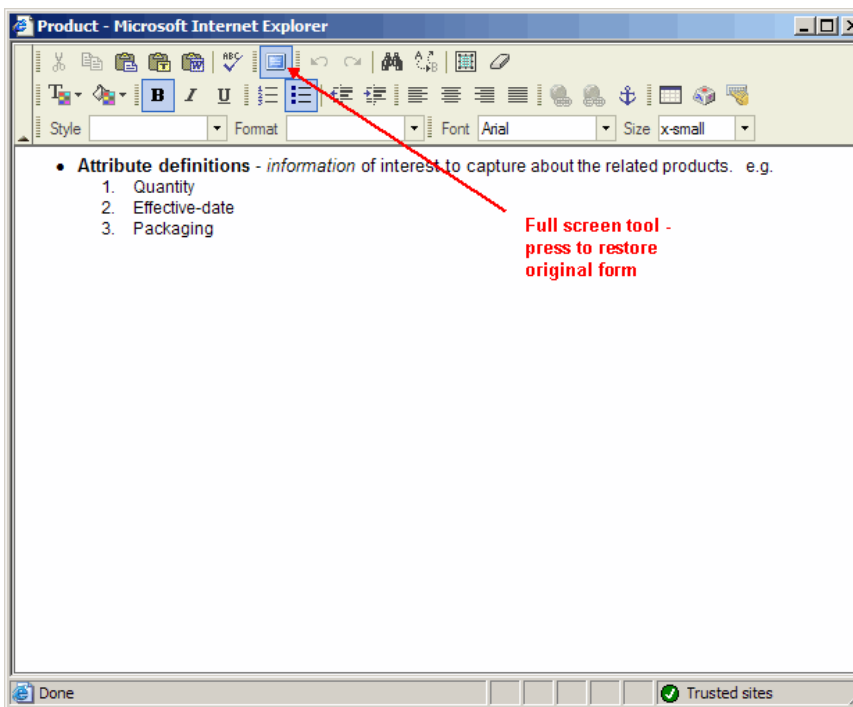
There are two options to increase the data entry area. The first is to collapse the toolbar by pressing the ^ in the left margin of the toolbar (restore the toolbar by pressing the v).

Fig. 2.4
HTML Text 2



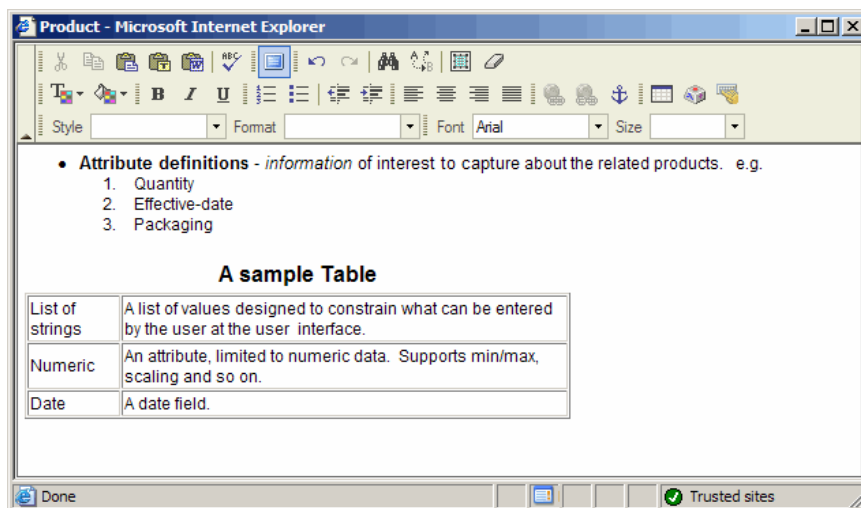
The second option to increase the area available for data entry is to press the full screen tool - doing so replaces the form with the editor (press the tool again to restore the original display).

Fig. 2.5
HTML Text 3



There are numerous features available with the editor. For example, you can insert tables in the text.

Fig. 2.6
HTML Text 4

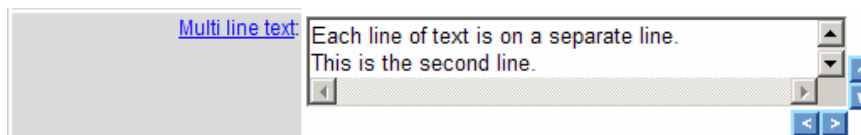


Multi-line Text Editor

The multi-line text editor permits the entry of multi-line text. When a multi-line text field is available on the screen, the stretch widgets display in the lower right side of the field.

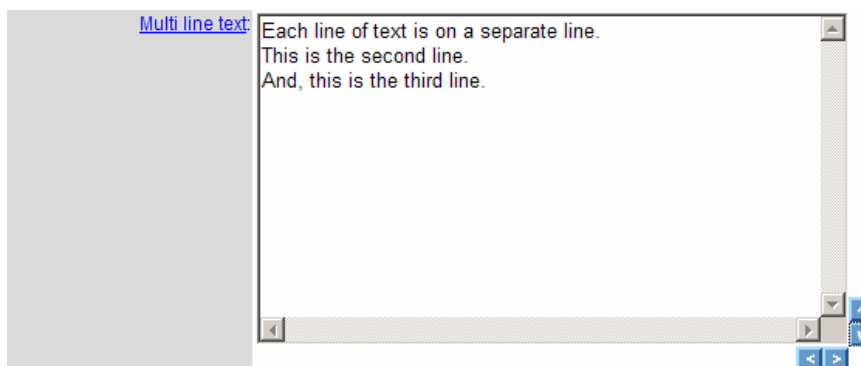
Note The height defaults to 2 rows, this is controlled by a system configuration parameter that can be tailored to your needs.

Fig. 2.7
Multi Line Text 1



To change the available space for data entry, select the up/down or left/right icons.

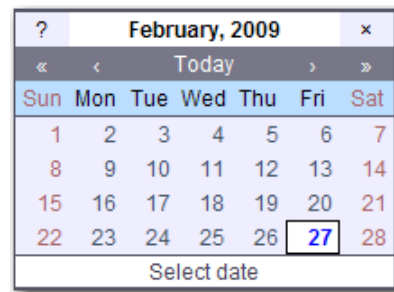
Fig. 2.8
Multi Line Text 2



Date Selector

This tool is available on date fields. When you select the date field, the display is replaced by the selection tool. To select a date, select the day of the month.

Fig. 2.9
Date 1



- To navigate to the previous or next month press the < and > symbols.
- To navigate to the previous or next year press the << and >> symbols.
- Alternatively, click and hold the mouse on the <, >, << and >> symbols for a drop down list of previous/next months or years.

Date/Time Selector

This tool is used to select a date and time. Date selection works the same as for dates.

- Highlight the hours or minutes.
- Click to increase the value.
- Shift+click to decrease the value.
- Alternatively, select the hour or minute and drag to the left to decrease the value; to the right to increase the value.

Log Out

To log out of Product Information Management, select Log Out from the upper right-hand corner.

PIM logs you out and the Login window displays.

Note Automatic logout - PIM has a configurable time out option that senses lack of activity on the part of the user and automatically logs the user off. Check with your system's administrator for the setting within your environment.

Role Based Security Model

With a role-based security model, roles are created to define common groups of tasks. These roles carry with them permissions and are granted to users. For example, a role of Clerk could allow Clerks to do X, Y, and Z. You then specify who the clerks are. This model permits re-use of common roles that can be defined once, tested for accuracy and used repeatedly as the staff changes.

Role-based security is used to control both the functions a user can perform within PIM and the data upon which they can operate. The building blocks within PIM are:

- Privilege
- Role
- User
- Catalog
- Product Company

Privilege

The fundamental Product Information Management building block that controls what a user can do. A privilege represents something that can be done in PIM. Examples are UseContentMgmt, Classify Products, Change Products. Privileges ship with Product Information Management and cannot be changed by the user. See the List of privileges for additional information.

Role

A role represents a particular job function or area of responsibility. Examples are Content Maintainer, Catalog Builder, Data Entry. A role consists of:

- List of privileges (what functions are available)
- Catalogs that can be modified (what product data can be edited)
- Catalogs that can be viewed (what product data can be viewed)

A role can be associated with one or more users. What a user can do is defined as the summary of all privileges associated with all his/her Roles.

Product Information Management ships with a set of default roles. These can be changed after installation to meet your needs. The superuser role that ships with the product includes all privileges. This role is typically associated with a trusted administrator. While the privileges associated with superuser can be modified, we strongly recommend leaving the superuser role intact.

When defining a role, the administrator has the opportunity to define the associated privileges. Choosing which roles have access to a catalog is left to the catalog creator. Therefore, to associate an individual catalog with a role, access the catalog definition function.

User

A named user of PIM. A user has one or more roles. The user's privileges are the sum of privileges associated with all their roles. A user may be associated with a single company via their user profile or all companies via the View All Products privilege. See Product Company discussion below.

Catalog

A catalog is a classification of products for viewing, exporting and editing purposes. The catalogs are defined to be viewable or editable by zero, one or more roles. The users with those roles will see the catalog based upon their privileges to access functionality within PIM.

Note If a user can edit a catalog and they have the Change Products privilege, they can edit the products in the catalog - even if the product's company doesn't match their security rights. This, effectively overrides their company security rights.

For example, Jane is a user with a role of Product Manager. Her user profile includes the company Acme Manufacturing. However, she does not have the View All Products privilege. If someone else creates a ball bearings catalog of products from company Ball Bearings, Inc. and grants the Product Manager role edit access to the catalog, then within the ball bearings catalog, Jane would be able to edit products, including those from Ball Bearings, Inc. For more on catalogs see “Catalogs” on page 115.

Product Company

The company associated with a product. Product company and part number uniquely identify products. A user can be directly associated with a single company via their user profile. In addition, they can be granted access to all company products if they have been granted a role that includes the View All Products privilege.

The company(s) a user is associated with controls which products a user can view within the template hierarchy and classify within a catalog. A user with a company on their user profile without the privilege View All Products will see only their company's products within the template hierarchy and can only classify that company's products in a catalog.

List of privileges

Note a/c/d refers to Add/Change/Delete permissions.

Privilege	Definition
AdministerUsers	Grants access to role based security. Enables the Users tab.
ChangeAllAttributes	Grants a/c/d access to all attributes.
ChangeAllCatalogs	Grants edit access to all catalog definitions and their content (for example product data).
ChangeAllProducts	Grants a/c/d access to all Products.
ChangeAllTemplates	Grants a/c/d access to all Templates, template structure and template attributes, and to global attributes.
ChangeAttributeGroups	Grants a/c/d access to attribute groups.
ChangeBaseProductData	Grants a/c/d access to base product data (company, part number) for Products the user can access.
ChangeCompanies	Grants a/c/d access to companies.
ChangeCurrencies	Grants a/c/d access to currencies.
ChangeExportDefinitions	Grants a/c/d access to export definitions.
ChangeNotifications	Grants a/c/d access to Notifications associated with events.
ChangePackUOMs	Grants a/c/d access to Packing Units of Measure.
ChangePrices	Grants a/c/d access to product Prices for Products the user can access.
ChangeProductAssociationTypes	Grants a/c/d access to Product Associations Type definitions.

Privilege	Definition
ChangeProductAssociations	Grants a/c/d access to Product Associations for Products the user can access.
ChangeProductCompanyAssociationTypes	Grants a/c/d access to Product Company Associations Type definitions.
ChangeProductCompanyAssociations	Grants a/c/d access to Product Company Associations for Products the user can access.
ChangeProductPackaging	Grants a/c/d access to Packaging for Products the user can access.
ChangeProductStates	Grants a/c/d access to Product States.
ChangeProducts	Grants a/c/d access to Products which can be accessed. In addition to this privilege, the user must have access to a set of products. Accomplished by any of the following: • The User's profile includes a company. • Role has the privilege ViewAllProducts. • Role has change catalog privilege for a catalog with products.
ChangeReportTypes	Grants a/c/d access to Report Types.
ChangeUnits	Grants a/c/d access to Unit and unit conversions.
CheckInProducts	Grants ability to check in a product (product versioning environment only)
CheckOutProducts	Grants ability to check out a product (product versioning environment only)
ClassifyProducts	Grants the ability to classify products in catalogs. NOTE: Requires the ability to see products for one or all companies. Accomplished by any of the following: • The User's profile includes a company. • Role has the privilege ViewAllProducts.
CreateCatalogs	Grants the ability to create new catalog definitions. Users with this privilege can maintain the catalog definitions they've created.
ExportProducts	Grants access to Export Manager.
GroupEdit	Grants right to Group Edit from Product Manager's Products Found.
RunImportManagerServer	RESERVED. Do not assign to users of Product Information Management. Required to run the import manager daemon process.
UseContentManagement	Grants access to Product Manager.
UseImportManager	Grants access to Import Manager.
UseOnlineViewer	Grants access to Product Viewer.
UseReports	Grants access to Reports tab.
ViewAllBatches	Grants view access to all batches in the Import Manager.

Privilege	Definition
ViewAllCatalogs	Grants view access to ALL catalogs. Eliminates the need for view rights to individual catalogs. Viewing rights apply to both the Product Viewer and Product Manager.
ViewAllProducts	Grants access to products for all companies. NOTE: Requires ChangeProducts privilege to be able to change the product data.

Users

Only someone with Administer Users privilege can access to the Users tab. This allows a person to add, edit, and delete users and user roles.

Adding New Users

All users must have at least one role assigned to allow login and use of the system.

To add new users to PIM:

- 1 Select the Users tab. The Users window displays.
- 2 In the Users panel on the left select Add New.
- 3 Provide the user information as required. To enable a user on PIM, select the Enabled checkbox.

Fig. 2.10
Add New User

The screenshot shows a web browser window titled "Add New User - Windows Internet Explorer". The address bar shows a URL starting with "http://167.3.44.118:8080/pps70/ImportManagerUI/UserAdd.html?notify=opener.Reload()". The form itself is titled "Add New User" and includes a "Help..." button. The form fields are as follows:

- Login Name: [text input] with a checked "enabled" checkbox.
- Password: [text input] and Password Again: [text input].
- Full Name: [text input].
- Company: [dropdown menu showing "< None selected >"] with a "New Company..." button.
- Phone: [text input] and Pager: [text input].
- Email Address: [text input].
- Street: [text input].
- City: [text input] and State: [text input].
- Postal Code: [text input] and Country: [text input].
- Notes: [text area].
- Roles: A section with "Assigned" and "Available" lists. The "Available" list contains: AA TestRole, Activities, CatalogMaintainer, CompanyMaintainer, and ExportMaintainer. There are left and right arrow buttons between the lists.
- Privileges Based on the Assigned Roles: [text area].

At the bottom of the form are "OK" and "Cancel" buttons. The browser's status bar at the bottom shows "Done", "Internet", and "100%" zoom.

Note Company is used to restrict the data that can be operated on within PIM. A user can have access to product data for a single company (selected here), no company, or all companies (a role with the privilege View All Products). This permits self service (distributed) across company or division maintenance of data.

- 4 Select user roles from the Available list box. Click on the left arrow button to move the selected role to the Assigned box. The role privileges appear in the Privileges list box below.
- 5 To remove a user role, select the role in the Assigned list box and click the right arrow button. The role is removed from the Assigned list box.
- 6 Select OK.

Note Once created, users can maintain all of this data except Company and Roles on their my profile screen. Required entries for adding are full name, login name and password.

Editing Users

To edit a user's information, or role assignment:

- 1 Select the Users tab.
- 2 Under the User panel, select the user. The user information displays.
- 3 Make the necessary edits and select Apply Changes.

Deleting Users

To delete a user from PIM for employee retirement or transfers

- 1 Select the Users tab. The Users and Roles window displays.
- 2 Under the User panel, select the user you want to delete (blue link). The user information displays.
- 3 Select Delete.
- 4 Confirm the deletion

Disabling Users

To temporarily disable a user from PIM:

- 1 In the Users tab select the user you want to disable.
- 2 Uncheck the Enabled checkbox.
- 3 Select Apply Changes

Adding New Roles

Product Information Management ships with a set of default roles that can be tailored or changed to your needs. To add new roles that can be assigned to users, select Add New from under the Users tab.

- 1 In the Users tab select Add New Role.

Fig. 2.11
Add New Role

- 2 Add a role name and description.
- 3 Grant privileges and assign users to the new role. (The role will also appear in the Add and Edit User screens for assignment by user.)
- 4 Assign the system components - catalogs, companies, attribute groups, and templates - the role can change and view.

For more information on each tab refer to the individual object maintenance screens - Catalogs, Companies, Attribute Groups and Templates.

- 5 When you are finished, select OK. The roles is added in PIM.

Editing Roles

To add or revoke privileges assigned to a role:

- 1 Select the role you want to edit from the Users tab.
- 2 Make any necessary changes to the fields and select Apply Changes.

Deleting Roles

Important Do not delete the default Super User role which grants all privileges.

To delete an existing role, use the following steps:

- 1 Select the role you want to delete from the Users tab.
- 2 Select Delete.
- 3 Confirm the deletion. The role is deleted.

About

Pressing About from the upper right-hand corner displays the version and identification of the Product Information Management application.

Fig. 2.12
About Box



Help

Chose Help from the upper right-hand corner to access the help system. Help consists of definitions, guidelines, and procedures. It also contains graphics, sample screen shots, an index, and search capabilities. When the help refers to a screen, a sample screen follows. Sample screens contain sample data, refer to them solely for informational purposes.

Import Manager

This chapter provides information about the Import Manager and various related functions. This chapter discusses the following topics:

<i>Adding a New Batch</i>	<i>24</i>
<i>Import Manager Batch Workflow</i>	<i>33</i>
<i>Committing the Batch</i>	<i>45</i>
<i>Bridge Tables</i>	<i>48</i>
<i>Notifications</i>	<i>52</i>
<i>Scheduled Job Information</i>	<i>54</i>
<i>Monitoring (Administration)</i>	<i>58</i>
<i>Lookup Tables</i>	<i>58</i>
<i>Part Number Normalization</i>	<i>60</i>

The Import Manager is used to import supplier data into the PIM production database. Products are submitted to the Import Manager in files/batches. PIM accepts product files in the following formats:

- Product Information Management XML format.
- Comma or tab delimited (spreadsheet-style) files.

The Import Manager allows the operator to view and affect the progress of one or more batches of data through the queues associated with the workflow.

The following options are available within the Import Manager.

- Batches allows you to import batches of data.
- Bridge Tables allows you to view and edit the tables (attribute, category, company, and unit tables) that map from data supplier terms to standard terms in the database.
- Notifications permits a user to register interest in being notified by e-mail when an event occurs while processing products in the import manager.
- Scheduled jobs permits the monitoring and scheduling of jobs that are managed by the import manager. This includes exports.
- Administration allows you to monitor the asynchronous processes that handle the data.
- Lookup Tables record dynamic variables to be used within PIM's scripting language.

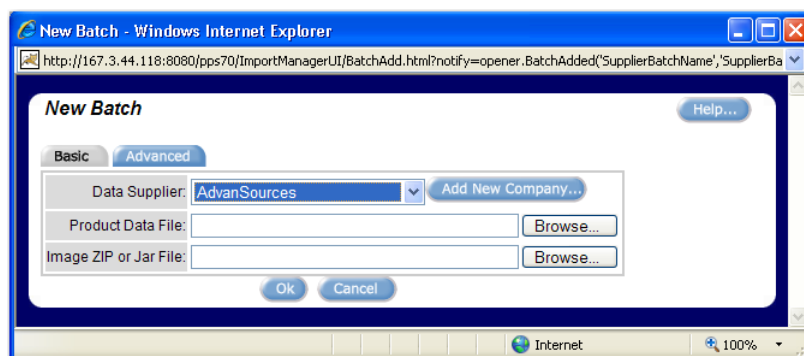
The import manager's process flow can be customized for each particular instance. Refer to QAD Services for more information on customizing the flow and creating custom transformation scripts.

Adding a New Batch

When you add a new batch, you submit a new batch of supplier product data to process. To process a batch, you first need to complete a series of tasks, and then you can commit the batch into the database. Refer to the “Import Manager Batch Workflow” on page 33 to learn more about the tasks to complete for the related queues.

To add a new batch, from the Import Manager Batches tab, select New Batch.

Fig. 3.1
New Batch



Data Supplier. The Data Supplier is the source of the information. PIM uses information about the Data Supplier to manage bridges from data to data. Select a data supplier from the drop-down list. If the company is not in the list, select Add New Company. For more information see “Adding a Company” on page 132.

Product Data File. Provide the data supplier's Product Data File name, or select Browse. The File type defaults to the appropriate value based on the data file. Data Files can be:

- Product Information Management XML
- comma or tab delimited format
- a zipped file that contains one of the previous forms and an embedded zip file of images

Image ZIP or Jar File. if there are images available for the products in the Product Data File, provide a companion Image Zip or Jar File. Type the Image Zip or Jar File name -or- select Browse. The Product Data File's image field should contain the file name that can be found in the Image Zip or Jar File. Multiple products can share the same image within the Image Zip or Jar File.

To override your installations default processing options, proceed to the advanced tab.

Fig. 3.2
New Batch Advanced Tab

The screenshot displays the 'New Batch' window with the 'Advanced' tab selected. The interface includes a 'Data Type' dropdown set to '<None>' with an 'Add New Data Type...' button. Date and time ranges for 'Date received' and 'Date to Load' are set to January 22, 2009, from 7 PM to 7 PM. The 'Product Data File type' is 'IAccel XML' and 'Data file encoding' is 'UTF-8'. Action options include 'No action', 'No catalog', and 'No completion job'. Checkboxes for 'Automatically catalog products', 'Move products on update', 'Batch commit required', 'Review deletes before processing', 'Updates are definitive', 'Compare to previous batch before load', and 'Update copies supplier category' are visible. A table for 'Automatically Map' and 'Automatically Create' mappings is shown, with 'Company', 'Template Attribute', 'Product Associations', and 'Company Associations' checked under 'Map'. The 'Use Shared Mappings' and 'Confirm Shared Mappings' sections are also present. At the bottom, completion states for 'New Products' (Ready for approval), 'Updated Products' (Leave completion state unchanged), and 'Obsoleted Products' (Under construction) are set. 'Ok' and 'Cancel' buttons are at the bottom center.

Data Type. If applicable, select a data type from the Data Type drop-down list. If the data type is not listed, select Add New Data Type. Data type can be used to permit concurrent processing of independent data (batches) from the same data supplier. To control mapping definitions, PIM prohibits processing of multiple batches from the same supplier. If there is no overlap between multiple batches from the same supplier, Data Type can be used to segregate

the batches and execute them in parallel. For instance, Hammer product data may be located in one batch, while Electrical Wire product data is in another batch. In this case, you could use a different Data Type for the two batches.

Date received and Date to Load. These can be used for tracking purposes to reflect the date a batch was received or loaded. These default to the current date and time. You can choose to alter this by using the drop-down lists.

Note The date and time must be unique for all batches from the same supplier with the same data type.

Product Data File type. Select one of the following:

- IAccel XML
- Comma/Tab delimited
- ZIP file of XML and images

Data file encoding. These options are based on individual configuration. Choose from:

- Cp1252
- ISO-8859-1
- UTF-8

Action on obsolescence. Choose from:

- No Action
- Delete product if it has only one supplier
- Change the product completion state for product
- Delete product from the database unconditionally

Compare to catalog. Used to minimize processing required and to identify missing products from a data feed. When a batch is imported with compare to catalog, products that are in the catalog but not in the batch are assumed to be deleted (removed from the supplier's data feed). When this option is used, the user will typically create and maintain a catalog that reflects the data source's products. That catalog will be used to compare with the batch. The drop down list shows all catalogs available for comparison.

Job at batch completion. Used to initiate a scheduled job defined to the system once the batch's products are committed to PIM. Generally a job kicked off in this manner is the result of QAD services work to perform post commit processing upon the batch. The drop down shows a list of available jobs to perform at batch completion.

Automatically catalog products. This option will create a catalog in PIM that matches the batch's products. The catalog name will match the batch name. The catalog's classification structure will be a sparse version of the template hierarchy - only the nodes with products in the batch will be created. A catalog generated in this manner can be used to perform post-commit processing of the products - for example an approval process or a review.

Move products on update. This option is used to force a product that is being changed by the batch to be moved to a different template if the inbound product's category maps to a template other than the one to which the product is currently assigned.

Automatically add new notifications. This check box defaults as un-selected. Selecting this box requests e-mail notifications for all events of this batch to the submitter, overriding the default notifications.

Batch commit required. This check box defaults as selected. Selecting this box permits a final QA prior to insertion into the database. If this box is un-selected, products that enter the Ready for Insert, Ready for Update, Ready for Removal and Discarded Products queues are automatically inserted, updated, removed or discarded from the database, without requiring the user to commit the entire batch.

Compare to previous batch before load. This check box defaults to un-selected. Selecting this box requests PIM to process the delta of the current file compared to the most recent file from the data supplier. This streamlines the processing when an external system is the system of record for product information. To process the entire batch, you must un-select this box.

Review deletes before processing. Choosing this option routes the explicit and implicit delete requests to a confirmation queue for review prior to actual delete.

Important For information on automatically generated deletes that take place when choosing this processing option refer to “Final Queues” on page 44.

Updates are definitive. The inbound product replaces the product in the PIM

Update copies supplier category.

Automatically Map import data for exact matches. (defaults to selected). When selected, the user will not be required to define mappings when matching canonical entries already exist in PIM. Choose from the following:

- Company
- Template Attribute
- Product Associations
- Company Associations

Automatically Create records from import data. When selected, PIM will dynamically create the canonical entries in the database based on the imported data. This should be used judiciously with trusted data sources that are consistent with your organization's namings. Choose from the following:

- Company
- Product Associations
- Company Associations

Use Shared Mappings to create new mappings. Company, Unit, Category and Associations, (defaults to selected). When selected, permits the use of common shared mappings to this batch.

Confirm Shared Mappings before using. \Company, Unit, Category and Associations, (defaults to un-selected). If you have confidence in the applicability of existing shared mappings to the data in this new batch, then un-selecting the Confirm Shared Mappings check box causes the shared mappings to be used automatically without confirmation, thus decreasing required user input. When selected, permits the user to confirm/override the usage of shared mappings.

New Products Completion State. Modify the Product Completion States from their default value if desired. The default value is configuration dependent. These settings determine the state of products that are added. You can subsequently search for products of a given state, modify the content and change the state. Choose from the drop down:

- Ready for Approval
- Obsolete Pending

Updated Products Completion State. Modify the Product Completion States from their default value if desired. The default value is configuration dependent. These settings determine the state of products that are updated. You can subsequently search for products of a given state, modify the content and change the state. Choose from the drop down;

- Leave completion state unchanged
- Under Construction
- Ready for approval
- Obsolete pending

Obsoleted Products Completion State. Modify the Product Completion States from their default value if desired. The default value is configuration dependent. These settings determine the state of products that are obsoleted. You can subsequently search for products of a given state, modify the content and change the state. Choose from the drop down:

- Under construction
- Ready for approval
- Obsolete pending

When all appropriate fields are complete, select OK. PIM registers this new batch and proceeds to the next step in the process. For comma or tab delimited format, user proceeds to Mapping a Spreadsheet. Otherwise, PIM displays a status window that informs you of the status of the new batch. For example, the status window may display this message, Waiting to be loaded, and then Batch loaded.

After you define a new batch, the Import Manager analyzes the batch to determine the number of new, changed, removed, and unchanged products. Products with errors display in this queue, as well. New, changed, and removed products are then placed in the appropriate panel and queue/task. To view the Import Process Status window, from the Import Manager, select the Batches tab. The Import Process status window displays. To view a specific batch, select the desired batch from the Batch drop-down list.

Adding a New Data Type for Data Suppliers

When you import a new batch, you can add a new data type for the data supplier in the Data Supplier window. A data type is an attribute of a supplier batch that is used to differentiate between different types of data that are provided by a given data supplier. Besides being descriptive, the data type of a batch is used to segregate different batches to help calculate differences in batches received from this data supplier.

When the option is selected, Product Information Management compares the batch being submitted with the previous file from the same data supplier in order to correctly process the products contained in the file. The data type can be used to group batches from the same data supplier (PIM can make the comparison with the last batch of the same type faster). For example,

if you have a data supplier that gives you two different groupings (files) of data (perhaps Electrical Equipment and Hand Tools), you would give each its own data type. PIM would then group the Electrical Equipment files together for the purposes of calculating the delta from the previous file from that data supplier.

Mapping a Spreadsheet

The mapping a spreadsheet function converts raw product data in tabular (spreadsheet) format into the SOXML. Product Information Management supports two types of spreadsheets: tab-delimited or comma-delimited. After the columns have been mapped from the spreadsheet file to Product Information Management product fields, PIM converts the spreadsheet data to its Import XML form, and then starts to import the batch. Inbound spreadsheet data files must consist of one row per product, with the first row containing column headings for the various data fields.

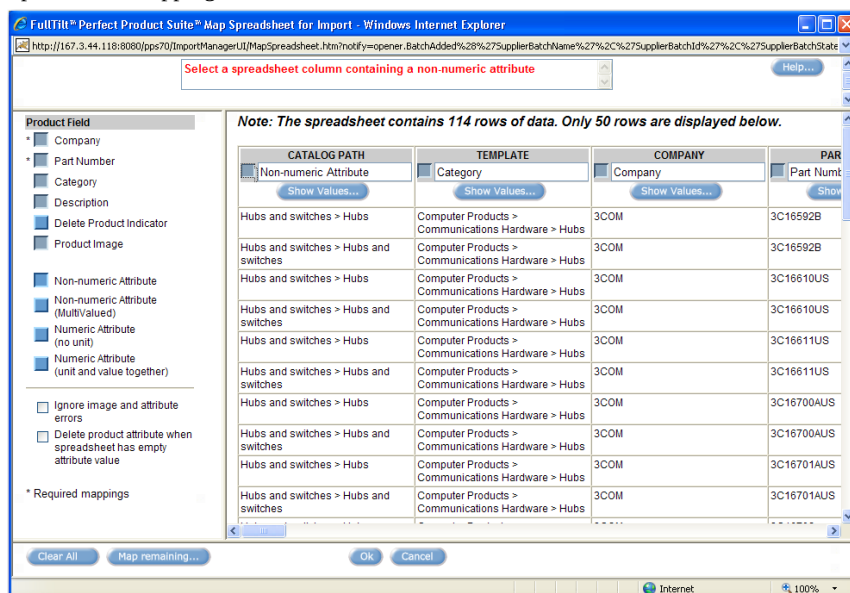
The spreadsheet mapping form (see image below) displays the first 50 rows of products in a matrix and shows the total number of products in the data file. The actual data is shown to guide in the process of mapping the column names from the raw data to Product Information Management's Supplier Product fields.

PIM's Supplier Product fields are in the left pane listed vertically, beginning with Manufacturer and so on. The raw data's column names are displayed in the right pane from left to right.

Each of the PIM fields and raw data column names have rectangular blue selection buttons adjacent to them.

The mapping process is simple - select the button next to a PIM's Supplier Product fields in the left pane, then select one or more corresponding column name's button in the right pane. A message box appears at the top of the form, with instructions in red text to guide the user through each step in the process.

Fig. 3.3
Spreadsheet Mapping



Automatic Mappings

When the file is examined, PIM will make a guess as to which column is which. For instance, if a column in the first row of the spreadsheet contains the text Part number or Part, Product Information Management will automatically map the column to the required Part Number field. Columns that are automatically mapped will contain the Product Information Management field name in the white text box below the file's column heading. The matching is done without regard to case.

If there are multiple columns that match a given mapping (for example, manufacturer), and that mapping only permits a single column to be mapped, the column closest to the left on the screen is chosen. If the automatic mappings are inappropriate, press Clear all to remove the mappings.

Rules and Hints for Usage

- Required Product Information Management's Supplier Product fields (Company, Part Number) are marked with an asterisk to the left of their blue selection button. All required fields must be mapped prior to pressing the OK button.
- If several columns are the same type field (for example, string attribute), you can select the PIM's Supplier Product field and select successive column headings.
- The Map remaining button will map all remaining (unmapped columns) to the selected data type.
- The Show Values button permits the user to review the unique values in a specific column of the data-feed.
- The active Product Information Management's Supplier Product field mapping selection's button appears depressed and blue.
- Once a Product Information Management's Supplier Product field has been assigned, it's button appears depressed and gray. You can reassign another column by pressing the button again.

Note If you select a button from the Product Information Management Supplier Product Field after you already mapped it, a message displays in a pop-up window. For example this message may display, The Manufacturer Part Number field is already mapped to the Manufacturer Part Number column. Do you want to clear that mapping?.

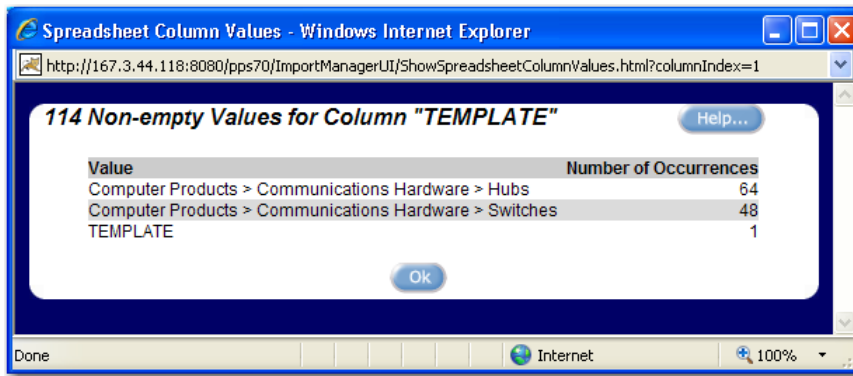
- The product image button is only available if an image file was specified when adding the batch.
- Category can be mapped to multiple columns. When mapping category to multiple columns, choose the target columns in sequence. In the resulting XML file, the values will be concatenated together in the sequence chosen and separated by a period.
- Use Numeric Attribute (unit and value together) if the column values are, for example, 60 hz and the template attribute to which this will be mapped is numeric with a unit specified.
- To remove a single mapping - make sure that no Product field is chosen (depressed) in the left pane, then select the button above the column name you'd like to clear in the right pane.
- Select the checkbox Ignore image and attribute errors if you'd like to pass data that doesn't match the expected values onto the import manager process.

Spreadsheet Column Values

This display shows the frequency of unique values in a column that's a candidate for mapping in the Import Manager's Spreadsheet Mapper.

This display is invoked by pressing the Show Values button from the spreadsheet mapper. The Unique Value Occurrences are displayed from most frequent to least frequently occurring. The information provided can be used to aid in the mapping process.

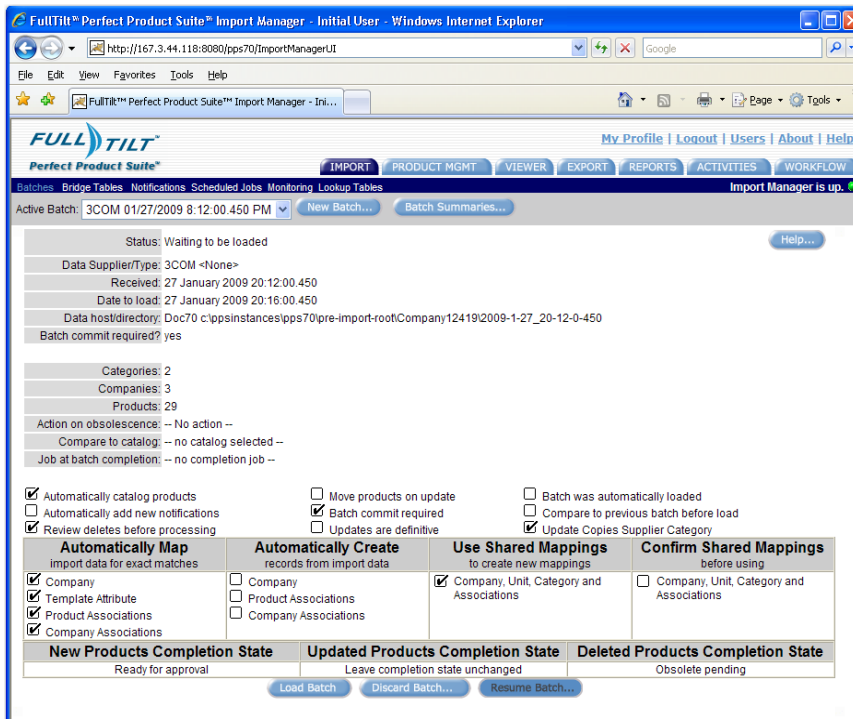
Fig. 3.4
Spreadsheet Column Values



Loading the Batch

After you define a batch, the batch is pre-processed and a set of statistics are generated to permit the user to confirm that the correct action is about to be taken.

Fig. 3.5
Batch Load

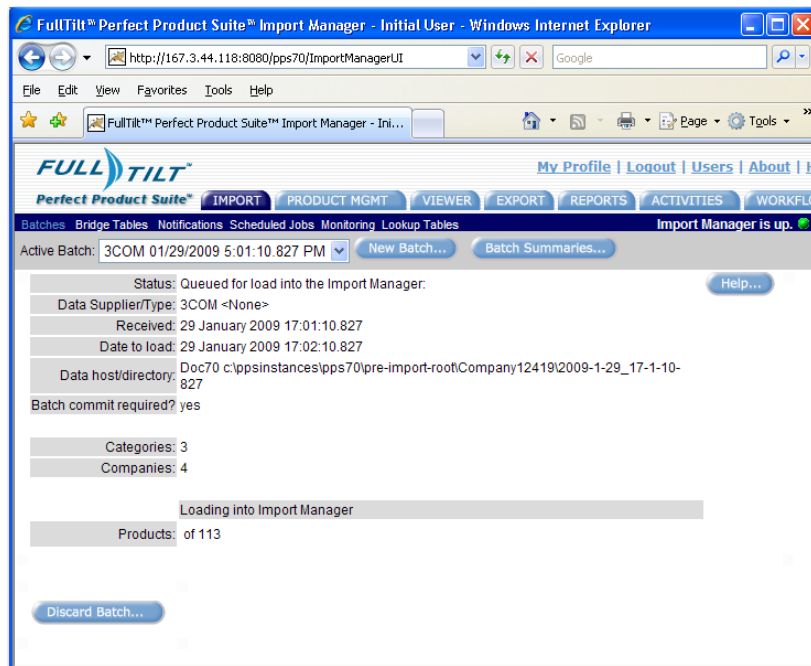


You confirm the batch is correct by Loading the batch.

To load a batch, use the following steps:

- 1 From the Import Manager, select the Batches tab.
- 2 Add a new batch, and then select OK. The Status window displays information about the batch that you registered. The file is first analyzed (compared to the previous file or products counted). During this process, the status field shows Being Analyzed. After analysis is complete, the status field shows Waiting to be loaded.
- 3 View the status window and wait for the status, Waiting to be loaded and for the Load button to appear. PIM displays a window with statistics about the new file you just entered. The details include the status of the file, the data supplier, the data type, when the file was received, the data directory, batch commit required information, number of companies, number of categories, number of products, number of new products, changed products, removed products, unchanged, and discarded products). Make sure it meets your expectations with regards to the supplier data. If it does not, you may wish to investigate before you proceed to process this batch. You can select Discard Batch if you don't want to proceed with the batch.
- 4 To load the batch into the Import Manager, select Load. The status window displays two messages, Being Loaded into the Import Manager, and then Being Processed into the Import Manager.

Fig. 3.6
Queued for Load



Once the products have been loaded into the Import Manager, Product Information Management will return you to the Import Process Status window, and the products in the batch move to the appropriate panels and queues.

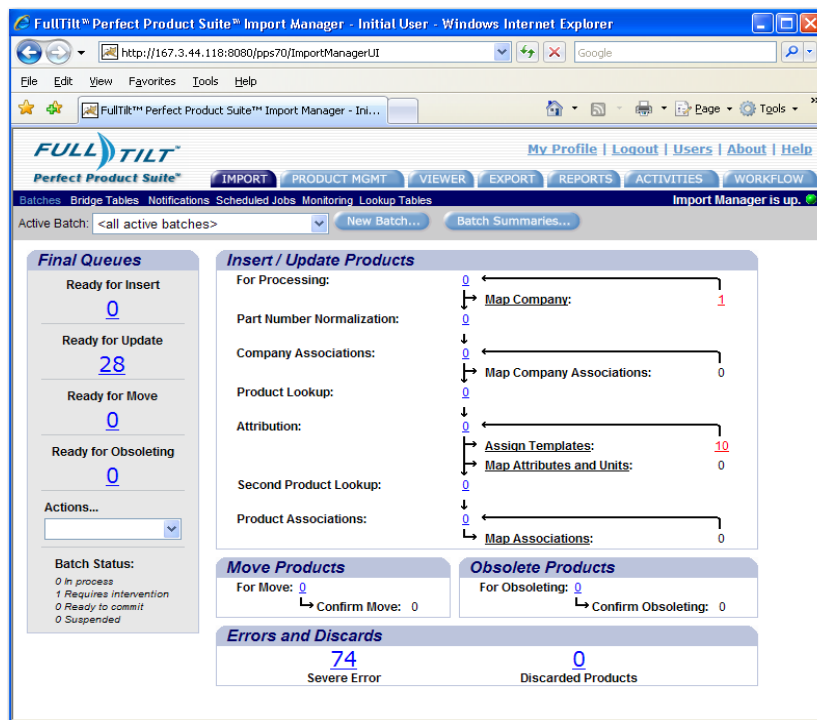
Progress of the load is displayed as products loaded at the bottom of the screen. Depending upon the size of the batch, the load process may take some time. Progress is automatically refreshed by PIM.

Import Manager Batch Workflow

The import manager allows the operator to view and affect the progress of one or more batches of data through the queues associated with the workflow. To view the Import Manager workflow select the Batches tab. The screen is organized into 5 main panels (left to right, top to bottom):

- 1 Final Queues and batch status summary (in the left margin).
- 2 Insert/Update Products.
- 3 Move Products.
- 4 Obsolete Products.
- 5 Errors and Discards.

Fig. 3.7
Batches Tab



Editing Inbound Product Data

You can view the product details from any of the automatic or manual queues by clicking on the highlighted number link which brings up the Items Found window. To view product details, from any Items Found screen, click on the product number, (blue highlighted link). The Product Details window displays. From here you can view and edit product details.

From the various queues you can:

- Discard the product, which routes it to the Discarded Products queue. When products are in the Discarded Products Queue, the Import Manager permanently discards the import products when the batch is committed. Discarded products are not processed against PIM.
- Re-run the product, which resets and resubmits the product to the import process. You can access the Rerun button from the Discarded product window. When you select Rerun, the products are restored to their original state, prior to any company mapping, template assignment, attribute mapping and/or unit mapping. The products are then sent back to the Insert Start queue (put back at the top of the import process).
- Edit one product at a time. The product detail window contains all the information about the supplier product. Add or delete product attributes.
 - Change product attribute values.
 - Add, delete, or change the units associated with the attributes.
 - Delete the product image, if there is one (though there's currently no provision for adding an image).
 - Edit the product's description.
 - Edit or clear the product's category.
 - Change the manufacturer and/or manufacturer part number.
 - Change the vendor and/or vendor part number.

Note If you select OK to save the changes, the Import Manager applies the changes, and then re-runs the product.

Items Found

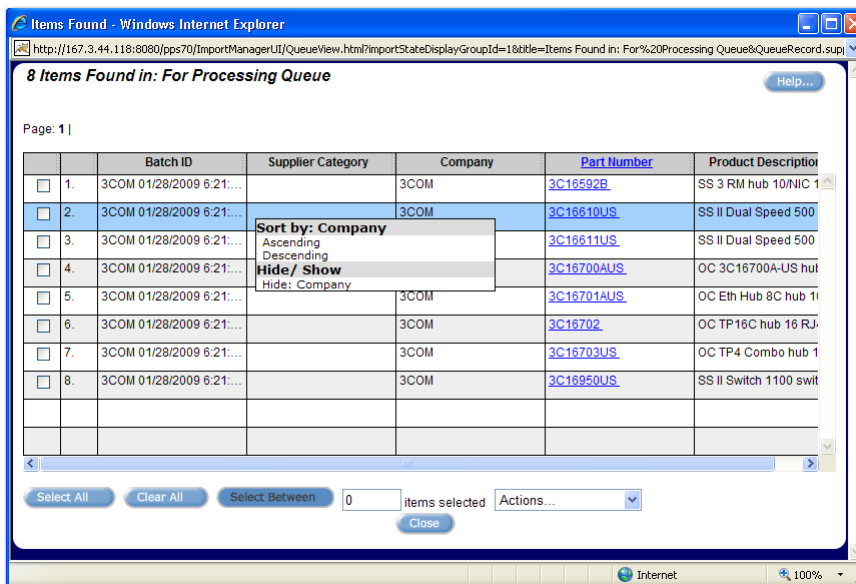
Clicking on any highlighted number queue will bring up the Items Found screen. The items found screen is used to display all import manager product queues. The columns and functionality will be different depending upon the specific queue or, customization that's been performed in a particular instance of the PIM. However, basic functionality will remain the same.

Feature	Usage
Select, deselect, multi-select and Take Actions	To select items and take action: • Use the checkboxes near the left margin to select individual items in the list. • Select all and clear all buttons to mark/clear everything. • Use Select between to mark a range of items (from the first to the last explicitly selected items). • Chose an Action from the action drop down list.
Action Buttons within lists for example, Map	Some screens permit mapping. Press the appropriate button to proceed to the mapping screen.
Sort column	Select the column head hyperlink to sort on a column heading will show if the column is sort ascending or descending. Select the column again to reverse the order.

Feature	Usage
Hide/Show columns	You can choose to hide column(s) and later show them again. To hide a column: • Select any cell in the column to hide. • A Hide/Show menu will appear with hide/show options. • You can hide the column you selected. • You can show previously hidden columns - pick the name. • You can show all columns.
Resize a column	To resize a column: • Position the mouse on the vertical bar between the two columns whose size you'd like to change. • When your cursor change to a horizontal bar with arrows on either side, you've locate the stretch bar. • Select and drag/drop until the column is the size you'd like, unclick.
Sizes and column selections are retained across usages.	Hidden and resized columns are retained in cookies in the browser for each distinct queue. So, the next time you visit a queue, your settings are retained. Can't see a column? It could be you hid it on a previous visit - see hide/show above.
Logarithmic pagination	The page numbers are displayed using a standard method of compressing the numbers the further you are away from the current page.

This is an example of the Items Found window for the For Processing queue showing selected items. Each column can be shortened or expanded by clicking and dragging the line of the column in the header row.

Fig. 3.8
Items Found



This shows the Hide/Show menu, by double-clicking inside any cell you are given further options to customize the table.

Actions - From the Drop Down List.

View statistics	To view statistics and batch processing options for a select single batch, click the view statistics button.
Commit	Commits the current active batch (in the Active Batch drop down window) to the database. Once committed, the products will appear in Product Management and any Catalogs which have been defined using the Auto classification capability of Product Information Management.
Discard	Discards the current (in the Active Batch drop down window) active batch from PIM. You're prompted with an are you sure message box prior to the actual discard taking place.
Suspend/Resume	Temporarily suspend and subsequently resume a batch's progress within the import manager. Suspended batches are identified in the drop down batch selection list with the term suspended following the batch name.

Note View statistics, Commit Batch and Discard Batch are only available if a single batch has been select from the Active Batch drop down list.

Queues

Each of the areas shown in the Import Manager workflow under the Batches tab show the processing associated with a specific type of product action (for example, insert or update) and the queues associated with those actions. Each queue is shown as a count of products in the queue at the time of refresh. Click on the number to view or operate on those products.

There are two types of queues: manual and automatic. The automatic queues are to the left side of the portion of the frame associated with the type of processing (for example, Insert/Update, Move or Obsolete). The Import Manager automatically routes the products through the Automatic Queues. The manual queues are to the right side of the frame. Attribution and For Processing are examples of Automatic queues. Map Company and Map Attributes and Units are examples of Manual queues.

Manual Queues

When a product is encountered that can't be processed automatically, it is routed to the appropriate manual queue and the batch's status is shown as Requires Intervention. Manual queues require user intervention before the products in that queue can be moved on to the next stage in the process. Notifications can be used to generate e-mails for the manual queues see "Notifications" on page 52.

Map Company Queue

When you import a new batch and load it into the Import Manager, the manufacturer and vendor names for each product need to map to a company name in the database. If the company names have not been previously mapped, the products from that company are displayed in the Map Company Queue. You can share company mappings between suppliers in the Add New Batch window.

The purpose of mapping a company is to map the company name that's provided by the data supplier with a company name that exists in the database. If the company name does not exist in the database, you can add a company within this window. In order to access the Map Company window, you need to first select the Map Company link from the Import Process status window. If you want to make this company mapping shareable, select the make this mapping shareable check box located at the bottom of the window.

To map a company, use the following steps:

- 1 From the Import Manager, select the Batches tab.
- 2 If the batch you need doesn't already display, select the batch from the Batch drop-down list.
- 3 Select the Map Company queue (numbered link) from the Import Process Status window. The Map Manufacturers and Vendors to Companies window displays.
- 4 Select Map Company. The Map Manufacturers and Vendors to Companies window displays.
- 5 From the Match Manufacturers and Vendors to Companies window, select a company from the Suggested Matches list box, or select a company from the All other Companies list box. You can also Add a New Company if the company doesn't already exist in one of the lists. Company information displays in the right panel such as company name, address and country. Also, PIM populates the company name in the text box to the right of the Link to Company button.
- 6 Select Map to Company. PIM returns you to an updated Map Manufacturers and Vendors to Companies window and informs you of how many more input companies (and associated products) need to be mapped to companies in the database.
- 7 If you want to make this mapping shareable select the make this mapping shareable check box.
- 8 If you need to continue to map companies, select Map to Company.
- 9 If you are finished mapping the companies, select OK. The window closes and PIM returns you to the Import Process status window and moves the products to the next queue.

Assign Templates Queue

From the Insert/Update Products Processing panel of the Import Process Status window, you can view a list of products that need to be assigned to a template by performing the following steps:

- 1 If the batch you need doesn't display, select the batch from the Batch drop-down list.
- 2 Select Assign Templates queue (numbered link) from the Import Process Status window. The Items Found in: Assign Templates Queue window displays.
- 3 To assign a product to a template, select the Map button. The Assign Products to Template window displays.
- 4 Proceed to the next task, Assigning Products to Templates.

Assigning Products to Templates

There are three different panels in the Assign Product to a Template window: the status panel, the template maintenance hierarchy panel, and the template panel.

- The status panel, located at the top, allows you to view the product you are mapping to a template. The Batch ID, Last updated information, Manufacturer, and all attributes associated with that product features are listed.
- The left panel allows you to navigate to the template to which you want to assign the product. If you cannot locate the template group or template, you can Create a Template Group or Create a New Template. At batch import time, if product data is encountered for new product lines, you have the option to create the template dynamically from the content of the batch. Chose Create a New Template to pre-populate the template and attribute definitions based on the imported batch's content.
- The right panel displays the template (group) information to help the user confirm they've selected the correct template.

Fig. 3.9
Assign Product to Template

Product that needs to be assigned to a template

Batch ID: 3COM 02/04/2009 1:14:33.727 PM
 Last updated:
 Reason for last update: No reason given
 Description: SS 3 RM hub 108NIC 12 RJ45
 Company: 3COM
 Part Number: 12341
 Category: Computer Products > Communications Hardware > Hubs

Attributes that apply to all templates

Show global attributes: ☒ Show group columns: ☒
 Show attributes applicable to: < All >
 Show attributes in: < All >

Attribute Name	Required	Visible	Searchable	Applies to Products	Applies to Templates	Multivalued	Identify
Warranty Type	☐	☒	Full	☒	☐	☐	☐
Warranty Term	☐	☒	Full	☒	☐	☐	☐
Form Factor	☐	☒	Full	☒	☐	☐	☐
Model Name	☐	☒	Full	☒	☐	☐	☐

Apply changes Discard changes

☐ Apply to all 10 Computer Products > Communications Hardware > Hubs products
☐ Apply to future 3COM batches
☐ Share for other data suppliers

Assign to Template: [] Cancel Edit Product... Discard Product...

Note For more information on Templates, Template hierarchy and Attributes, see “Templates” on page 64

To assign products to a template, use the following steps:

- 1 From the Assign Products to a Template window, use the maintenance hierarchy in the left panel to drill down to the template to which you want the product assigned. The template name populates the text box next to the Assign to Template button (bottom of the window).
- 2 If you want to assign all the products (from the same supplier/category) to the same template, select the Assign template to all products in the queue that are in supplier category check box.
- 3 If you want to save the supplier/category-to-template assignment for use in future imports, select the Create a permanent mapping from supplier category to the template check box.
- 4 Select Assign to Template. The Assign Similar Products to the same Template/Template Group window displays or PIM returns you to the Assign Product to a Template window.
- 5 If you need to assign more products to templates, select Assign Template.

- 6 If you are finished mapping products to templates, select OK. PIM returns you to the Import Status Process window.

Mapping Similar Products to the Same Template

If you previously assigned products to a template, PIM recognizes if other products are similar in that batch. If products are similar, this message appears after you assign products to a template, You just mapped a product to the template at the right. The products below are in the same supplier category and have the same attributes. They might also fit the template. You can use this screen to quickly map any or all of these products to the template.

To match similar products to the same template, use the following steps:

- 1 To view any of the products select the View Products button, and then select OK to close the window.
- 2 To match all the products, select Select All. If you want to match some of the products, select some of the products. A check displays next to the product(s) you selected.
- 3 Select Assign to Template. PIM displays an updated Assign products to Templates window.
- 4 If you need to continue to assign products to templates, select Assign Templates.
- 5 If you are finished assigning products, select OK. PIM returns you to the Import Process Status window and the products are assigned to the next queue.
- 6 Select the next queue (numbered link) to continue the Import Process.

Map Attributes and Units

The Map Attribute window consists of two panels. The top panel displays two columns: the Supplier Product column and the Template Assigned column.

From the Supplier Product column, you can:

- View the supplier product.
- Add a new supplier product attribute (name, value, and unit of measure).
- Edit an existing attribute (value and unit of measure).
- View the product image.

From the Template Assigned column you can:

- Add a New Attribute to the template.
- View an existing attribute from the template.

The bottom half of the window allows you to:

- Map the supplier product attributes to appropriate template attributes.
- Map the supplier units to appropriate standard units.

To map the product attributes, use the following steps:

- 1 Select an unmapped product attributes from the Unmapped Product Attributes list, then select an unmapped template attributes from the Unmapped Template Attributes Required or Optional lists. (For example, you could select Amps from the Unmapped Product Attributes list, and then select Ampacity from the Unmapped Template Attributes list). The Map button is highlighted (if there are no units need to be mapped).
- 2 If the Template Attribute requires a Unit, a list of the units of the appropriate type populates in the Possible Unit Mappings list when you select the attributes. Select the appropriate unit.
Note Sometimes the template attribute requires a unit, but the supplier attribute doesn't have one. Use the top panel in the window to add or edit the supplier attributes. The Map button is highlighted.
- 3 Select Map to map the product attributes to the template attributes (this also maps the units, if applicable).
- 4 If you need to un-map a product attribute and template attribute, select the mapped attribute from the Mapped Attributes list, and then select Un-map.
- 5 To save these attribute and unit mappings for other products in this category select the Save these mappings for other products in this category check box.
- 6 When you are finished mapping the attributes, select OK. PIM displays the Map Attributes window, which informs you of how many remaining products need attributes mapped to template attributes.
Note If the product does not have a category, the attribute and unit mappings you make will not automatically be applied to other products.
- 7 If you are finished mapping attributes, select OK. PIM returns you to the Import Process Status window and moves the products to the next queue.

Adding a New Supplier Attribute

You can add new attributes to the supplier product in the top panel of the Map Attributes window (in the Supplier Products column). The new supplier product attribute must include the attribute name, value, and unit of measure (if applicable).

To add a supplier attribute, use the following steps:

- 1 From the left top panel of the Map Attributes Definitions window, select Add New Attribute (use the scroll bar to view all the attributes). The Add Supplier Product Attribute window displays.
- 2 Enter an attribute name.
- 3 Enter an attribute value.
- 4 Enter a unit of measure (if applicable).
- 5 Select OK. This message displays, Note Since you've added an attribute to the supplier product, you will not be able to save the attribute and unit mappings for use by other products.

- 6 Select OK. The attribute is added to the Supplier Product column in the Map Attributes Definitions window.

Editing a Supplier Attribute Value

When you map product attributes to template attributes in the Map Attributes Definitions window, you may receive a system message that informs you that the template attribute requires a unit, but the supplier attribute doesn't have one. You will then need to edit the supplier attribute to provide a unit. You can enter a new value and new unit of measure for your product attributes in the Map Attributes Definitions window.

To edit supplier attribute values, use the following steps:

- 1 From the top panel of the Map Attribute Definitions window, select the supplier attribute value (blue link) you want to edit (use the scroll bar to view all attributes and units in the panel). The Edit Supplier Attribute Value window displays.
- 2 In the New value field, type a new value.
- 3 In the New Unit of Measure field, enter a new unit of measure, if applicable.
- 4 Select OK. The edits are saved and PIM returns to the Map Attribute Definitions window.

Map Association Queue

When you import a batch and load it into the Import Manager, you have the option of specifying associations between the products within the batch. The product association names in the batch must be mapped to the corresponding name within PIM.

If the association names have not been previously mapped, the products that use that association name are displayed. You can share company mappings between suppliers in the Add New Batch window.

Map Product Association

The purpose of this window, the Map Supplier Product Associations to Internal Associations, is to map the product association term that's provided by the data supplier with a product association that exists in the database. If the product association does not exist in the database, you can add a new one within this window. In order to access this window, you need to first select the Map Product Association Queue link from the Import Process status window.

If this is a common term that will span many suppliers, you may want to make this mapping shareable. To do so, select the make this mapping shareable check box located at the bottom of the window.

To product associations, use the following steps:

- 1 From the Map Supplier Product Associations to Internal Associations window, select a product association from the Suggested Matches list box, or select a product association from the All other Product Associations list box. Choosing an existing association causes its details to be displayed in the right hand pane.
- 2 You can also invoke Product Association Type Add if the Product Association doesn't already exist in one of the lists by pressing the Add new button.
- 3 Once an association is chosen to create a mapping to, optionally make the mapping shareable. This can be done if the term is common and will be used by multiple suppliers - select the make this mapping shareable check box.
- 4 Create the mapping - press the Map to Association button.
- 5 If you are finished mapping the companies, select OK.

Error and Discard Queues

Severe Errors Queue

Products are moved into this queue when an unexpected error is encountered. There are products in this queue when a numbered link appears in the Severe Errors section of the Import Process Status window. When the products are viewed in this queue, the errors are listed in the Reason for Failure column of the Severe Errors window. All of the products in this queue can be edited or deleted from this window.

Typically products end up in this queue if they are:

- Detected as duplicates by the Insert Product task (only possible when the same new product comes in simultaneously in two different import batches).
- Inserted and failed due to data errors.
- Faulty products that are missing (at least) one of the following: supplier name, supplier product number, manufacturer name, manufacturer product number, vendor name, and/or vendor product number.

To view products in the Severe Errors queue, use the following steps:

- 1 From the Import Manager, select the Batches tab.
- 2 If the batch doesn't already display, select the batch from the Batch drop-down list. The batch displays in the Import Process Status window.
- 3 Once you load a batch, some of the products may display in the Severe Errors section of the Import Process Status window. To view the products, select the numbered link to the right of the Severe Errors queue. The Severe Errors window displays the products in the batch, when the batch was last updated, the name of the vendor and part number (if applicable), the name and part number of the manufacturer, the description of the product, and the reason the product processing failed (Reason for Failure).
- 4 You can discard, rerun or edit products in this window (select the appropriate button).

Rerunning a Product in the Severe Errors Queue

To rerun a product from the Severe Errors queue, select the products that you want to resubmit to the Import Process, and then select Rerun Products. The product displays in the appropriate queue (The product is sent back to the For Insert).

Discarding Products in the Severe Errors Queue

At times, you may not be able to continue to process a subset of the products within a batch. An example of this could be a duplicate product within a single batch. To discard one or more products from the Severe Errors queue, use the following steps:

- 1 Select the product(s), and then select Discard Selected Products. PIM displays this message, Are you sure you want to delete the selected products from the Severe Errors queue?.
- 2 Select OK. The product(s) display in the Discarded Products queue.
- 3 Commit the batch to discard the selected products.

Discarded Products Queue

To view discarded products, use the following steps:

- 1 Select the Discarded Products queue (numbered link) from the Import Process Status window. The Discarded Products Queue window displays.
- 2 To view any of the products, select View Products. The Product Detail window displays.
- 3 Select OK when you are finished viewing the products details.
- 4 To rerun any of the products back through the Import Process, select the products and then select Rerun. The Discarded Products queue window displays the number of products left in this queue.
- 5 The Rerun button restores the product to its original state, for example before any company mapping, template assignment, attribute mapping or unit mapping was done. It then sends the product back to the For Insert queue.
- 6 Select OK. PIM returns you to the Import Process Status window.
- 7 Select the numbered link next to the queue where the products reside to continue the import process.

You can discard selected products of a batch or discard the entire batch at any time within the import process. When you discard products, the number of discarded products displays in the Discarded Products queue.

Discarding Selected Products

To discard a product from a queue, use the following steps:

- 1 From the Import Manager, select the Batches tab.
- 2 After you import a batch, you can select the Discard Products button from some of the queue/task windows (For example, Assign Products to a Template window).
- 3 Drill into a specific queue. The product list will display.
- 4 Select the individual products to discard by selecting the box or click Select All to quickly select all products displayed on that page.
- 5 Press Discard Selected Products at the bottom of the form to discard.
- 6 PIM displays this message, Are you sure you want to discard this product?
- 7 Select OK.
- 8 PIM returns to the list, the discarded products are removed from the list and the batch.
- 9 Select OK. PIM returns you to the Import Process Status window.

Final Queues

When you load a file into the Import Manager for insertion into the database, the product process includes:

- Mapping the Manufacturer to a company in the database.
- Assigning the product to a template.
- Mapping the supplier attributes for those products to Template Attributes.
- Mapping the supplier units (if any) to standard units.
- Mapping the supplier product association terms to standard product associations.

After the products in the batch successfully flow through these queues/tasks, the products are moved to one of the four Final Queues in the Import Process Status window. You can view the products from any Final queue by clicking on the numbered link, or move to the next step of the process: Commit the Batch. The Ready for Insert queue contains products that were not found in the PIM during import, thus the Import Manager will insert the new product into the PIM. The Ready for Update queue contains products which were found in the PIM and the Import Manager will update the existing product. When creating a new batch, if the optional Move products on update box is checked, then the product's option is moved to a different template if the inbound product's category maps to template other than the one to which the product is currently assigned. Products in the Ready for Obsolete queue may need tasks performed before batch can be committed, see below.

Ready for Obsolete Queue

The Verify Obsolete Queue screen permits the user to choose to confirm or reject for deletion the products that have been routed for deletion.

Imported product delete requests can be initiated explicitly or implicitly. Explicit deletes can be created when mapping a spreadsheet and choosing a column to be used as the Delete Product Indicator. This results in a product delete directive being created in the resulting XML for each product in the spreadsheet with a non-blank value in the Delete Indicator column. In addition, an XML created outside of PIM can include a product delete directive.

Implicit Delete requests can be generated by PIM when the import batch option Compare to previous batch before load is chosen. Under this circumstance, for any product that was in the previous data-feed from a data supplier that is not in the current data-feed, PIM will generate a delete directive. This is intended to be used to synchronize Product Information Management to an external system that's only capable of providing a complete data feed of product information. Therefore, products missing from the current data-feed are presumed to have been deleted.

Committing the Batch

Once you import a batch and map the supplier terminology to your standard terminology, (company, template, attributes and units) you can commit the batch. The products within a batch are ready to be committed to the database when all the products have passed successfully through the tasks to the Final Queues and Discard queue. At that time, the Batch Status area to the left of the screen will indicate that the batch is Ready to commit. And Commit Batch Action is available to be chosen in the drop down list.

When you are ready to commit a batch, the products may display in any combination in any of the following queues:

- Ready for Insert Queue.
- Ready for Update Queue.
- Discarded Products Queue.

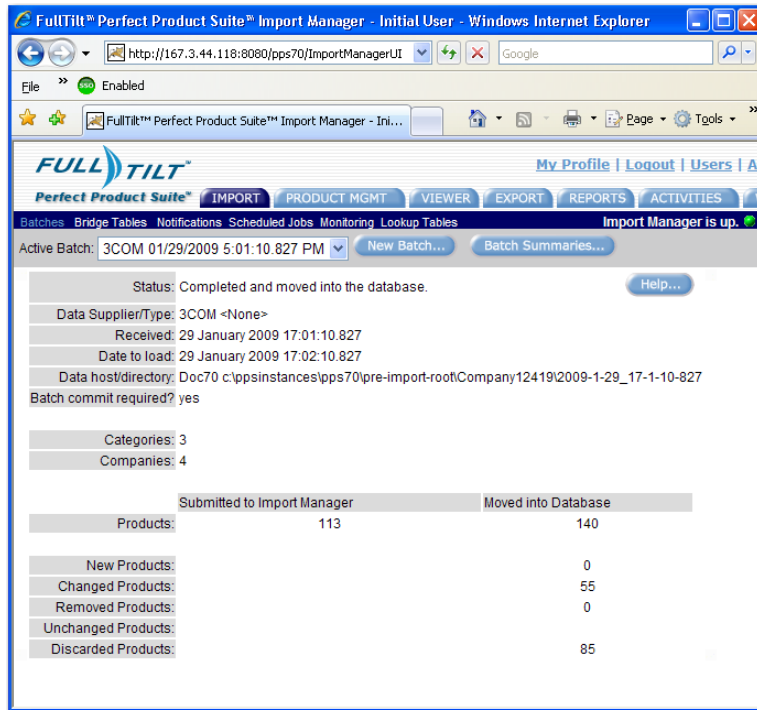
When the batch is in any of these queues, the Commit Batch button becomes active.

Note You cannot Commit Batch when viewing <all active batches> you must select a batch from the Active batch drop-down list.

To commit a batch, use the following steps:

- 1 If the batch doesn't already display in the Import Process Status window, select the batch that you want to commit from the Batch drop-down list. The batch you selected displays in the Batch drop-down list.

Fig. 3.10
Committed



- 2 Select Commit Batch. PIM displays this message, **WARNING:** Committing the batch will apply the inserted, updated and deleted products in the batch to the product database. Are you sure you want to proceed?
- 3 Select OK. PIM displays a status window that displays this message, Awaiting commit by the Import Manager. After a few moments PIM displays another status window that displays this message, Completed and moved into the database.

Discarding a Batch

You can discard a batch or you can discard selected products within a batch from specific windows in the queue.

To discard a batch from the Import Process Status window, use the following steps:

- 1 From the Import Process Status window, select the batch you want to discard from the Active Batch drop-down list, and then select the Discard Batch button. PIM displays this message, Are you sure you want to discard the batch batch_name?.
- 2 Select OK. The batch status window displays this message, Discarded by the Import Manager. The statistics display information about the batch you discarded, such as the data supplier, data type, when the file was received, data directory, batch commit required information, number of companies, number of categories, number of products, number of new products, changed products, removed products, unchanged, and discarded products.

Batch Summaries

The Batch Summaries screen is accessed from the Batches Tab within Import Manager. The top panel defines the set of batches that will appear in the list in the bottom panel.

To view the batch list in the bottom panel, construct a query in the top panel and press List Matching Batches. The list of batches that match the selection criteria appear in the bottom of the form.

Fig. 3.11
Batch Summaries

The screenshot shows the 'Batch Summaries' window in a web browser. The top section contains search filters:

- State:** A grid of checkboxes for various states: Being Analyzed, Analysis Failed, Ready for Loading, Loading, Queued, Processing, Rolled Back, Committing, Discarding, Completed, Discarded, and Purged. All are checked.
- Supplier:** A list box showing '3COM', 'AdvanSources', 'FT Corp.', and 'FullTilt Solutions, Inc.' with '<<' and '>>' buttons.
- Received between:** Date range from August 19, 2008 10:55 AM to January 29, 2009 6:21 PM.
- Load between:** Date range from August 19, 2008 10:55 AM to January 29, 2010 6:21 PM.
- Buttons: 'List Matching Batches' and 'Reset'.

The bottom section displays a message: '19 batches match your selection criteria.' Below this is a table with the following columns: Supplier, Datatype, Received, Load, State, # of products, # of companies, # of categories, and a 'View...' button.

Supplier	Datatype	Received	Load	State	# of products	# of companies	# of categories	
3COM		Jan 29, 2009 5:01:10 PM	Jan 29, 2009 5:02:10 PM	Complete	113	4	3	View...
3COM		Jan 28, 2009 6:21:24 PM	Jan 28, 2009 6:22:24 PM	Discarded	113	4	3	View...
3COM		Jan 27, 2009 8:12:00 PM	Jan 27, 2009 8:16:00 PM	Complete	29	3	2	View...
3COM		Aug 20, 2008 11:51:15 AM	Aug 20, 2008 11:51:15 AM	Complete	3	1	1	View...
3COM		Aug 20, 2008 11:46:15 AM	Aug 20, 2008 11:46:15 AM	Complete	3	1	1	View...
3COM		Aug 20, 2008 11:45:04 AM	Aug 20, 2008 11:45:04 AM	Discarded	3	1	1	View...

At the bottom of the table is a 'Close' button.

Batch Completed Details

When the batch is no longer active (completed or discarded) you can view a status window that displays historical information about the batch. The batch status displays as either Completed and moved into the database or Discarded by the Import Manager.

Basic information on the batch name, data supplier, gross statistics on the batch, host and options are available for both types of historical batches.

For completed batches there are two columns of data in the status window. The Submitted to the Import Manager column, which provides details about the types and amounts of the products submitted in the Import Manager and the Moved into the database, which column displays the type and amounts of products that were moved into the database. The types of products may include new, changed, removed, unchanged, and discarded products.

To view batch details, use the following steps:

- 1 From the Import Manager tab, select the Batches tab.
- 2 Select the batch that you want to view from the Batch drop-down list.
- 3 Select the arrow from the Batch drop-down list to review previously submitted batches. The drop-down list displays previously submitted batches.
- 4 Select the batch you want to view. The batch, if completed, displays a status window with batch details.

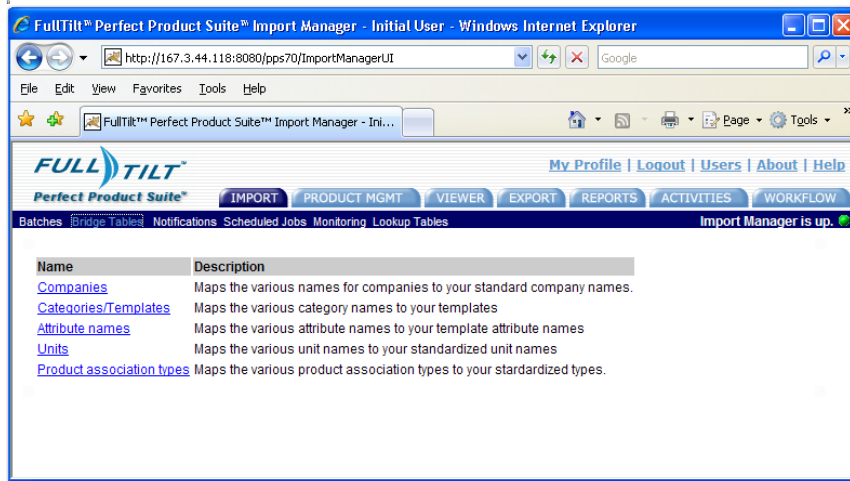
Bridge Tables

The Import Manager tab contains the Bridge Tables function from which you can initiate the maintenance of the bridge tables. Bridge tables contain the mappings of key names and words from the data supplier values to the canonical values your organization chooses to use.

The bridge table user interfaces allow you to map, or re-map the company name, category name, attribute name, and unit name for products already processed.

In addition to this, explicit maintenance of bridge tables, the content of the bridge tables is dynamically created, automatically when operating on products within the Import Manager Workflow within Batches function.

Fig. 3.12
Bridge Tables Tab



Supplier Company to Official Company

To view/edit a list of supplier company to official company bridge table, use the following steps:

- 1 From the Import Manager tab, select the Bridge Tables tab.
- 2 Select the Companies link. The Data Supplier Company Name to Company Mappings window displays.
- 3 The screen shows groups of company names based on their first character. Chose the company group starting with the number or letter of the alphabet you're interested in editing.
- 4 When creating or maintaining a company mapping, you can choose to make the map Shareable. Shareable maps can be used ACROSS data suppliers. Non shareable mappings can only apply to the data supplier responsible for providing the value. Use shareable mappings for common, unambiguous terms or names to avoid having to map the values each time they're encountered. A checkbox in the Shareable column indicates the map is shareable. A checkbox in the Uses shared mapping column indicates a supplier that's leveraging the shared map.
- 5 To edit or delete the company, select the company name hyperlink from the Mapped to Company column. This can be used if the supplier name is mapped to the correct company, but you'd like to change the spelling.
- 6 To re-map the company to another company, select Change. The Match Manufacturers and Vendors to Companies window displays.

Supplier Categories to Templates

To view/edit a list of supplier company to official company bridge table entries, use the following steps:

- 1 From the Import Manager tab, select the Bridge Tables tab.
- 2 Select the Categories/Template link. The Data Supplier Category to Template Mappings window displays.

- 3 Page numbers are displayed across the top of the form. The categories are displayed in category name sequence. Scroll to the desired page using Next and Prev, or select the desired page number to go directly to a desired page.
- 4 To change the template mapping, select Change Mapping. To add a new mapping, proceed to step 5. The Assign Supplier window displays three panels, the supplier category to template mapping in the top panel, a maintenance hierarchy on the left, and attribute options (add a new attribute using a template or to all templates) in the right panel.
Note You cannot edit the top panel.
- 5 To change mapping information, refer to the Assigning Products to Templates procedure and then proceed to step 10.
- 6 To add a new mapping, select Add New Mapping. The Assign Supplier Category to a Template window displays.
- 7 From the top panel, you can select a Data Supplier from the Data Supplier list box.
- 8 Type a supplier category in the Supplier Category field.
- 9 Drill down the Template Hierarchy to the desired Template.
- 10 Select Assign to Template.

Supplier Attributes to Template Attributes

To view/edit a list of supplier attributes to template attributes mappings, use the following steps:

- 1 From the Import Manager tab, select the Bridge Tables tab.
- 2 Select the Attribute names link. The Supplier Attribute Name to Template Attribute Mappings window displays.
- 3 This screen's left side displays the supplier categories with attributes to map. You must select a category on which you'd like to work. Page numbers are displayed across the top of the form. The categories are displayed in category name sequence. Scroll to the desired page using Next and Prev, or select the desired page number to go directly to a desired page.
- 4 Select a category by pressing its hyperlink.
- 5 The right side pane contains the supplier attributes and their mappings.
- 6 Select Change Mapping. The Change Supplier Attribute to Attribute Template Mappings window displays.
- 7 Refer to Mapping Attributes to re-map any of the attributes. Select the mapped product attribute and template attribute from the Mapped Attributes list box, and then select Un-map.
- 8 Redefine the mappings as desired.
- 9 Select OK to save the mappings.

Note The top panel does not allow you to add a new supplier unit or edit an existing supplier unit.

Editing and Viewing a Supplier Unit

To edit a supplier unit, use the following steps:

- 1 From the Import Manager tab, select the Bridge Tables tab.
- 2 Select the Unit name-->Unit name table link. The Supplier Unit to Unit Mappings window displays.
- 3 To change a supplier unit, select Change Mapping. The Change Supplier Unit Mapping window displays.
- 4 To make edits to the unit type or unit, select a unit type from the Unit type drop-down list, and/or select a new unit from the Unit drop-down list. Your selections display.
- 5 If you cannot find the unit type or unit you need, select Edit. The Units window displays.
- 6 To accept changes made to the unit mapping, select OK from the Change Supplier Unit Mapping window. The new changes have been accepted.

Supplier Units to Official Units

To view/edit a list of supplier units compared to official units bridge table, use the following steps:

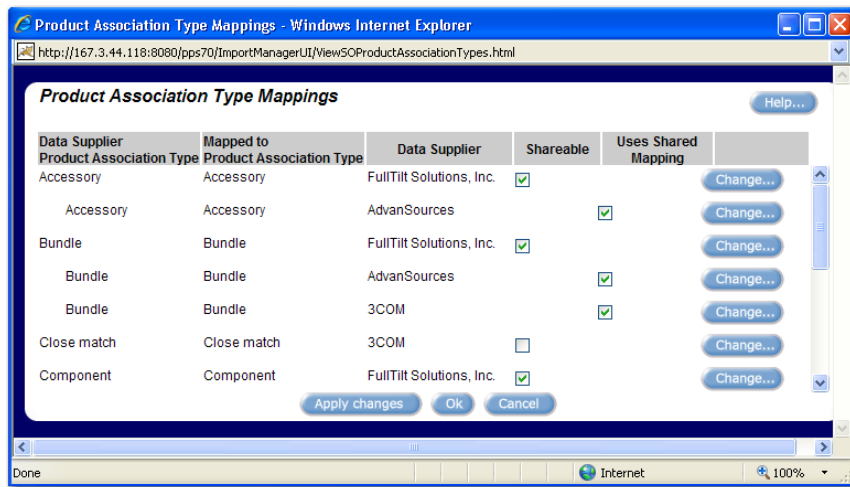
- 1 From the Import Manager tab, select the Bridge Tables tab.
- 2 Select the Unit name-->Unit name table link.
- 3 The Supplier Unit to Unit Mappings window displays.
- 4 Click the Change Mapping button.
- 5 The Change Supplier Unit Mapping window displays.
- 6 When creating or maintaining a unit mapping, you can choose to make the map Shareable. Shareable maps can be used ACROSS data suppliers. Non-shareable mappings can only apply to the data supplier responsible for providing the value. Use shareable mappings for common, unambiguous terms or names to avoid having to map the values each time they're encountered. A checkbox in the Shareable column indicates the map is shareable. A checkbox in the Uses shared mapping column indicates a supplier that's leveraging the shared map.
- 7 Refer to Editing/Viewing a supplier unit.

Product Association Type Mappings

To view/edit a list of supplier Product Association Type that have been mapped to the official Product Association Type bridge table, use the following steps:

- 1 From the Import Manager tab, select the Bridge Tables tab.
- 2 Select the Product Association Type link. The Product Association Type Mappings window displays.

Fig. 3.13
Product Association Type Map



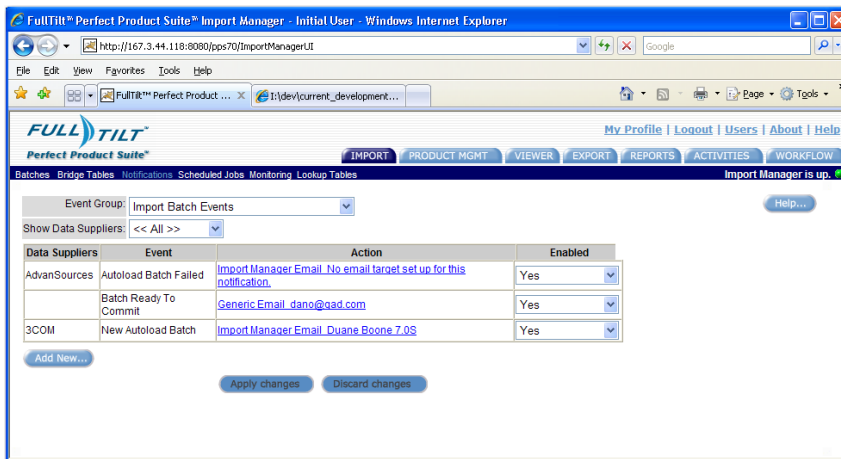
- Optionally, select the shareable check box to indicate that the mapping should be shareable by all data suppliers. When the shareable check box is selected, you can choose to use the shared mapping or not for each individual data supplier.
- If you've modified the shareable checkboxes, press the Apply Changes button to permanently record the modifications in the database.
- To define a specific mapping's to value, select Change Mapping. The Change Product Association Mapping Window displays. Pick a new value from the drop down and press OK.

Notifications

From this screen you can initiate the creation and maintenance of event notifications that are triggered by the import manager's activities. When a notification is triggered, the import manager initiates an e-mail (typically) to the designated recipients. The e-mail will include a hyperlink that when pressed will permit them to go directly to the import manager - the batch that triggered the event will be pre-selected, enabling the user to commence work on a batch.

You can use event notifications to permit distribution of workload, final QA and automated notification of the need to commence work. In addition to this registered notification, when a batch is registered, a user can choose to be notified for all events associated with the batch.

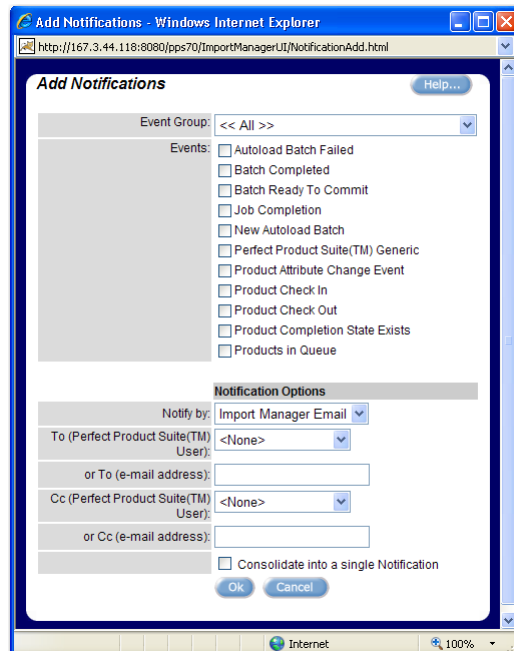
Fig. 3.14
Notification by Data Supplier



Add Event Notification

This screen is used to create notifications associated with import manager events. To access this screen, choose the notifications tab in the Import Manager. At the bottom of the screen, press Add New. Fill in all appropriate fields. Some options vary depending on what event group is chosen. Chose a notification method (for example, e-mail, JMS message, workflow). Press OK to save the notification to the database.

Fig. 3.15
Add Notification



Edit Event Notification

This screen is used to change an existing notification associated with import manager events. From the notifications table select the desired highlighted link under Actions to display the Change Notifications screen. Modify the data supplier, batch and notification recipients and other information as necessary. Press OK to record the changes to the notification in the database.

Event Notification e-Mail

When a notification is triggered, an e-mail can be generated by PIM and distributed as defined by the request. Chose the hyperlink to login to work on the batch that triggered the event. If you're already logged on, choosing this link will cause your session to invoke the import manager. If not, you'll be prompted to logon. In either case, the import manager will automatically select the batch associated with the e-mail.

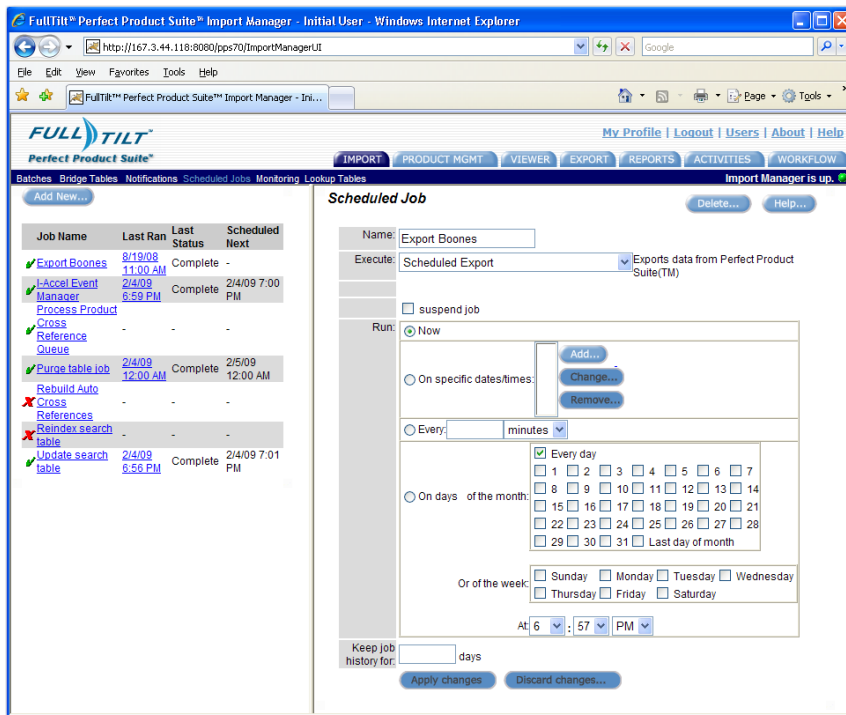
Scheduled Job Information

Scheduled jobs are used to manage internal, asynchronous jobs and to permit users to schedule the execution of on demand jobs. The job scheduler allows scheduling of jobs to run once, periodically (every n seconds/minutes/hours) or on a recurring pattern.

Usage:

- The current jobs are displayed in the left hand pain, along with their most recent status and next scheduled run time.
- To view job history for a job, press the hyperlink on it's last ran column.
- To create a new instance of a scheduled job, press Add New.
- Jobs remain in the list until they are deleted.
- The right pane is used to display and edit the scheduling information for a selected job. Select the blue hyperlink under Job Name to view the information.

Fig. 3.16
Scheduled Job Info



The screen permits the creation of a new scheduled job, or the maintenance of existing scheduled jobs. Change the values of an existing scheduled job and press Apply changes to record the change in the database. Or, press Discard changes to remove the entry.

PIM's Internal Jobs and Their Usage

The following jobs are part of a standard installation:

Job name	Description	Recommended run frequency
I-Accel Event Manager	Process events and publishes notifications association with the events.	Run frequently.
Process Product Cross Reference Queue	Calculates automatic product association relationships (aka product cross references) for cross-sell and up-sell based upon the values of the attributes.	Consult with services.
Rebuild Auto Cross References	Recreates automatic product association (aka product cross references).	Run only if there's a system integrity issue.
Re-index search table	Recreates text search table content from product data.	Run only if there's a system integrity issue.
Update search table	Synchronizes text search table with product content.	Run frequently.

Job name	Description	Recommended run frequency
Rebuild product counts	Recreates product counts from scratch.	Run only if there's a system integrity issue.
Update product counts	Routine maintenance of template and classification node product counts.	Run frequently.

A sampling of jobs available for scheduling on demand and their usage

Job name	Description	Key parameters
Scheduled Export.	Exports product data based on an export definition.	The Export drop-down contains the list of named (saved) export definitions. Use the Export Manager to create saved definitions.
Change product states to effective.	Designed to permit setting jobs to an approved state based on an effective date. For example, from Not Available to Approved.	This job was created before QAD PIM supported date formats. It requires both an effective and an expiration date to avoid making products effective which have expired. Since it needs a pair of dates to drive the processing the date attributes must be named and their format must be provided.
Change product states to expired.	Designed to permit setting jobs to an obsolete or not available state based on an expiration date. For example, from Available to Obsolete.	This job was created before QAD PIM supported date formats. Since it needs a date to drive the processing a date attribute must be named and it's format must be provided.
Create PCS Event	Notify interested parties of products in a specific state.	
SQL script execution job	Provides the ability to execute a SQL Script against the PIM database.	SQL file's name. This can be absolute path (the file location must be available to the application server) or path relative to PPS@HOME.
Purge table job	Manages the removal of historical information from system tables. Run this depending upon system load, rate of change of the data and need to maintain historical information.	Retention of table content expressed in days or rows. When the value is rows, it corresponds to generations of values to keep. For example, an export history row count of 5 indicates that the most recent 5 sets of history will be kept - older history will be purged.

Job name	Description	Key parameters
Operating system job.	Can be used to execute command line utilities.	The command file. This can be absolute path (the file location must be available to the application server) or path relative to PPS@HOME.
Job history maintenance.	Removes job history data from the database as defined by scheduled job.	

Add a Scheduled Job

Clicking the Add New button in the upper left side of the screen brings up the Add Scheduled Job screen which is used to create a new instance of a scheduled job.

Usage:

- Select a job to execute from the drop down list (the selection on the sample is Operating system job).
- Provide the parameters required by the job (this job requires one parameter called Command).
- Defined the execution pattern:
 - Run once - select the radio button labeled on specific date/times, then select Add to specify a time and date.
 - Run periodically - select the radio button labeled every specify an interval value and a period from the drop down (seconds, minutes) and specify a start time at the bottom of the screen.
 - Run recurring - choose the radio button labeled On days, a time of day to run at the bottom of the screen and choose a pattern:
 - Every day.
 - Specific days of the month.
 - Last day of the month.
 - Specific weekdays.
- Define the duration to retain job history.

Fig. 3.17
Schedule Job Add

Schedule a Job [Help...](#)

Name:

Execute:

Command:

☐ Show output in log

Run: ☐ Now

☐ On specific dates/times:

☐ Every: minutes

☒ On days of the month:

☐	1	☐	2	☐	3	☐	4	☐	5	☐	6	☐	7
☐	8	☐	9	☐	10	☐	11	☐	12	☐	13	☐	14
☐	15	☐	16	☐	17	☐	18	☐	19	☐	20	☐	21
☐	22	☐	23	☐	24	☐	25	☐	26	☐	27	☐	28
☐	29	☐	30	☐	31	☐	Last day of month						

Or of the week: ☐ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday
☐ Thursday ☐ Friday ☐ Saturday

At: :

Keep job history for: days

Monitoring (Administration)

Access the Monitoring tab from the Import Manager. The Import Manager tab on this window displays operating information about Product Information Management's asynchronous queue handlers. When a queue handler is active, its status will describe the activity it's currently performing. The monitor will typically be of use during Technical Support calls and by PIM's Administrator.

In addition to the import manager's queue handlers, the The Job Manager tab on the monitor provides information on scheduled jobs. This can be found at the bottom of the screen.

The administrator can view outstanding work in the various Queues by navigating to the Queues tab.

Lookup Tables

Lookup tables can be used to record dynamic variables to be used within PIM scripting language. These tables are designed to permit commonly used variables to be stored in a single location and widely used by Import Scripts.

The tables support defining keys to be used to access the data and the associated variables - or parameters. Data types for each are supported:

- String.
- Integer.
- Decimal.

From this screen you can maintain the lookup table column definitions and access the table for editing purposes.

To create a Lookup Table press Add new. To change or delete an existing Lookup Table, press the hyper-linked Lookup Table name in the left pane. The selected Lookup Table definition appears in the right pane.

Fig. 3.18
Lookup Table Definition Info

The screenshot shows the 'FullTilt Perfect Product Suite' Import Manager interface. The left pane lists 'All Lookup Tables' with links for 'SupplrDiscount' and 'QEMDiscount'. The right pane displays the 'Lookup Table: SupplrDiscount' definition. It includes a 'Table Name' field with 'SupplrDiscount', a 'Description' field with the text 'This table holds the Supplier Discount Percentage by custom scripts in the import manager workflow', and a 'Columns' table.

	Name	Type	Key	
1	SupplierName	String	☒	X
2	Year	Integer	☒	X
3	DiscountPercentage	Decimal	☐	X
4	HighVolumeDiscountPercent	Decimal	☐	X

Buttons at the bottom include 'Add', 'Apply changes', and 'Discard changes'.

Note The result of using this screen is the actual creation of a database table in the database. As a result there are some limitations:

- Table and Column names may not contain spaces.
- Once defined, table and column names may not be changed.
- A Description is required.

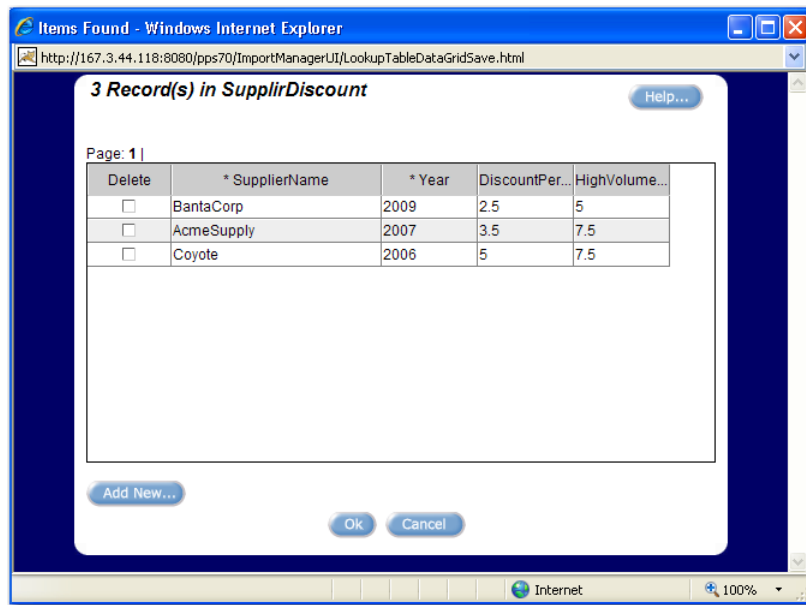
Once you create or change the Lookup Table Definition Apply changes to record the change in the database.

To delete a column that's no longer needed, press the X to the right of the value.

Creating and Editing Data

Once a table is defined, you can create or edit the data in the Lookup table. Select the Edit from the Action Drop down menu. A screen like this will display:

Fig. 3.19
Lookup Table Definition 2



On this screen, Press Add New to create new rows in the table. You can (re)type values in any column. Once you've made changes, choose OK to record the changes in the database.

Part Number Normalization

The part number normalization task is an optional, automatic task that's available within the import manager. The task is configured to perform its operations by PIM's administrator - no user intervention is required to enable this feature.

Examples of usage:

- Remove all dashes from part numbers.
- Remove all commas from part numbers.
- Remove leading zeroes from part numbers.
- Reverse the order of the second and third section of three part numbers (for example, aaa-bbb-cccc becomes aaa-cccc-bbb).

Default configuration (importmanager.cfg):

```
#
# Configuration for Normalize Part Number task
# per-Task options:
# Editing rules can be defined for part numbers.
```

```

# Example rules are shown below in keys that end in "rule.suffix".
# Rules are applied by the alphabetic ordering of their suffixes.
# Rules are defined with one of two keywords "REMOVE" or "CHANGE".
# A REMOVE rule is followed by a single argument, the pattern that
# should be removed.
# A CHANGE rule is followed by two arguments: the pattern to match
# and the second argument is the replacement.
# The patterns and replacements can use full regular expression syntax,

# including capture groups.
#
task.NormalizePartNumber.status: on
task.NormalizePartNumber.class: com.fulltiltinc.ImportManager.NormalizePartNumberTask
task.NormalizePartNumber.type: continuous
task.NormalizePartNumber.logLevel: summary
task.NormalizePartNumber.traceLevel: summary
task.NormalizePartNumber.queue.input: Normalize Part Number
task.NormalizePartNumber.queue.output: Insert Company Association
task.NormalizePartNumber.queue.error: Severe Error
# Reverse the order of the second and third section of a three part part
# number, where the parts are separated by dashes
# task.NormalizePartNumber.partNumber.rule.1: CHANGE "([^-]+)-([^-]+)-([^-]+)" "$1-$3-$2"
# Remove all dashes from part number
# task.NormalizePartNumber.partNumber.rule.2: REMOVE -
# Remove all commas from part number
# task.NormalizePartNumber.partNumber.rule.3: REMOVE ,
# Remove all dots (periods) from part number. The dot means "any character"
# in regular expression syntax. A literal dot must be escaped with a backslash.
# Since this is a java properties file, a single backslash must be represented
# as two backslashes.
# task.NormalizePartNumber.partNumber.rule.4: REMOVE \\.

```

Remove trailing dashes from part number

task.NormalizePartNumber.partNumber.rule.5: REMOVE -\$

Remove one or more leading zeros from part number

task.NormalizePartNumber.partNumber.rule.6: REMOVE ^0+

Rules and Hints for Usage

This task, while powerful can lead to unique inbound products to appear to be duplicates to the import manager. For example, assume there is a PIM system that is configured to remove embedded dashes and leading zeroes from part numbers. If a supplier batch is imported with these part numbers:

- abcdef-1.
- abcdef1.
- 000-a-b-c-d-e-f-1.

Each of the three parts above will be normalized to the same part number - abcdef1. In the processing queues, the normalized part number will be used to identify the part number (not the raw part number). If there's a need to inspect the input files and/or return to the raw data, it's important to remember that this step may be normalizing part numbers during the import process.

Template Management

This chapter covers the development of templates and template groups, and the creation and management of template attributes.

Templates **64**

Template Attributes **76**

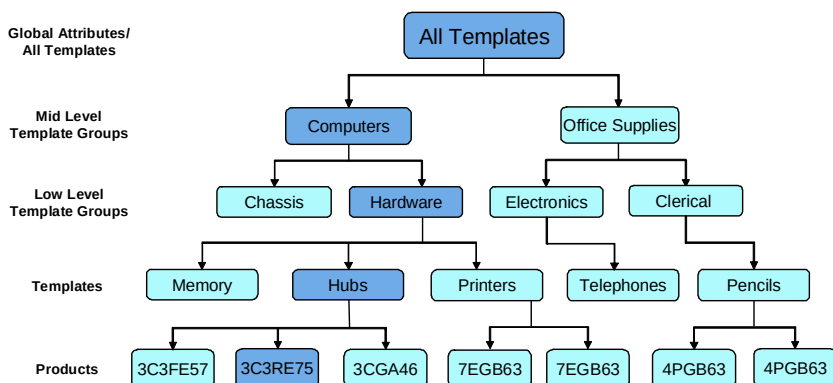
Automatic Product Association Definition **85**

Templates

A template consists of a set of attributes and their constraints for a product or group of products. When a product is created or modified, the template is used to ensure the proper fields are filled in with allowed values. Templates group all attributes required to completely describe a given set of products.

Templates follow a basic tree structure. The base of the hierarchy is the product, the top is the master template called All Templates. Template groups are used to organize templates which share a similar set of attributes.

Fig. 4.1
PIM File Hierarchy



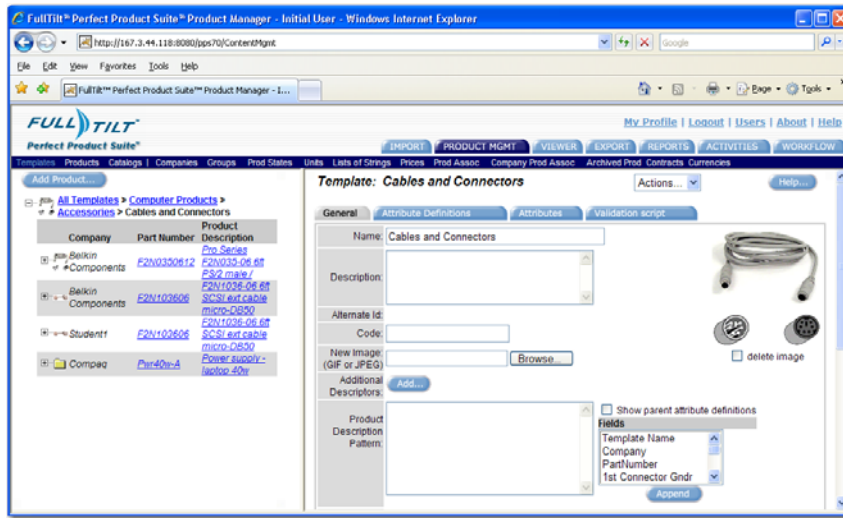
Review or Update All Templates

When you select the Product Manager tab, Templates displays a browser window with two separate panels. The left panel displays the position in the template hierarchy. Standard, drill down techniques are used to navigate the tree. The right panel content varies based on the type of object selected in the left panel (all templates, template group, template or product template).

Click on All Templates in the left side of the screen, and check Show Global Attributes to display the list of global attributes. These attributes apply to all template groups, templates and product templates.

Template Hierarchy in the Interface

Fig. 4.2
Template Hierarchy in the Interface



The left side of the screen above represents a three level hierarchy. Below All Templates, Computer Products is the top level template group. Accessories is an intermediate level template group. Cables and Connectors is a product template in this structure. This is the point in the template where products are assigned and listed.

Numbers in parenthesis to the right of each node represent the number of products under that Template Group or Template.

The template hierarchy can be rearranged by moving a template or template group. Templates can be combined or split by creating a new template or template group using Move Products to reassign the products to their new home.

Rules can be defined for each global attribute to constrain valid values, data types required or not, visible in the Product Viewer, searchable in the Product Viewer, and so on.

Attribute groups are represented as columns of check boxes in the right pane of the screen. On this panel, each global attribute can be assigned to zero, one or more attribute groups by selecting the checkboxes.

Global attributes of the type Alternate Product Description are treated specially. When an alternate product description is defined in one of the attribute groups in a catalog, the alternate product description values replace the primary description in all aspects for the catalog. This includes search, product lists, product detail and exports. Due to this special usage, zero or one Alternate Product Description is permitted in each catalog.

Product Information Management includes options to automatically synchronize the template hierarchy to match external systems or standards. For more information contact QAD Services.

Create a Template Group

Template groups organize templates which share a similar set of attributes.

To create a New Template Group, use the following steps:

- 1 From the Contents Manager, select the Templates Tab.
- 2 Drill down into the Templates hierarchy to the position where the new Template Group should be placed.
- 3 Select the Create Template Group button. The Create New Template Group window displays.

The Create New Template Group screen displays three tabs where you describe and identify the new template group.

Create Template Group - General Tab

Use this screen to enter the general information for the Template Group.

Fig. 4.3
Add Template Group

Name. Enter the name of this template group. The name must be unique within the node the template (group) appears. The template name is the primary information displayed about a template throughout PIM.

Description. Enter a description. The Description is available upon request from some screens within PIM.

Code. Enter an identifying code unique to your company (for example, UNSPSC). Code lets you associate an external coding scheme with the template group.

Image (GIF or JPEG). You can associate an image related to this particular template (group). An iconized version of the image will be displayed next to the template in all hierarchical views.

Additional Descriptors. Descriptors associate name/value pairs with this template group. Descriptors must be uniquely named for the node of the hierarchy at which they're defined. See “Template and Classification Descriptors” on page 75.

Roles that can change this template. Assign roles that can make changes to this template or template group and child templates. This information can be maintained here or in Role maintenance. See “Role Based Security Model” on page 13.

Users who will be able to change. This displays the users who can make changes to this template or template group.

Create Template Group - Attribute Definitions

This tab displays the attributes associated with this template group. The Show Parent Attribute box displays the parent attributes associated with this template group in a summarized list. Some characteristics of an attribute can be changed directly on this summary. Clicking on any attribute displays additional detail. See Viewing a Template Attribute. See “View a Template Attribute” on page 79.

Fig. 4.4
Creating Template Group - Attribute Definitions Tab

Attribute Name	Required	Visible	Searchable	Automatic	Applies to Associations	Applies to Products	Applies to Templates	Multivalued	Identifying	Type	APC	ComputerAttribute
All Templates												
Warranty Type	☐	☒	Full	☐	☒	☐	☐	☐	☐	List of strings	☐	☐
Warranty Term	☐	☒	Full	☐	☒	☐	☐	☐	☐	String	☐	☐
Form Factor	☐	☒	Full	☐	☒	☐	☐	☐	☐	String	☐	☐
Model Name	☐	☒	Full	☐	☒	☐	☐	☐	☐	String	☐	☐
Other Features	☐	☒	Full	☐	☒	☐	☐	☐	☐	String	☐	☐
Series Name	☐	☒	Full	☐	☒	☐	☐	☐	☐	String	☐	☐
Warranty Coverage	☐	☒	Full	☐	☒	☐	☐	☐	☐	String	☐	☐
Product attribute inheritance test	☐	☒	None	☐	☒	☒	☐	☐	☐	String	☐	☐
Division name	☐	☒	Full	☐	☐	☒	☐	☐	☐	String	☐	☐

Attribute name. The name given to an attribute for the Template (group). For instance, 'Brand' or 'SKU #'. Click on the name for information about the attribute.

Required. Indicates if a value must exist for this attribute in order to be entered or updated in the product data catalog.

Visible. Determines whether the attribute is visible to the Product Viewer.

Searchable. Indicates if the attribute will be text or parametrically searchable in the Product Manager and Product Viewer. The options are: not searchable, text only, parametric only or fully searchable (text and parametric).

Applicable to Products/Templates: Indicates whether the attribute is applicable to products, templates, or both.

Multi valued. Allows the attribute to carry more than one value. For example, a color attribute can carry multiple colors.

Identifying. Identifies this attribute as uniquely identifying the product. Identifying attributes act as tie breakers when the standard identifier (company and part number) are not unique.

Type. A brief description of data types is listed below, for more information see “Attribute Datatype Definitions and Usage” on page 81.

- Numeric -- A numeric value that may or may not have a unit specified
- String -- Any character string value. Can be further defined as multi-line text or HTML
- List of Strings-- One of a predetermined set of string values.
- External URL -- A pointer to an externally managed website or file. Examples might be Manufacturer Safety Data Sheets, schematics or other such documents stored in binary format (for example, PDF).
- Derived numeric -- A numeric attribute that can be calculated as a formula based on the values of other attributes.
- Derived string -- An attribute built from a combination of fixed text, attribute values and other items (for example template name, company name and part number).
- Date -- A date attribute.
- Date/time -- A date and time attribute.
- Date Range -- From one date to another chronologically.
- Boolean -- A true/false attribute.

Attribute groups are displayed as columns to the far right of the screen. Checked boxes will indicate if the particular attribute is a member of the attribute group. For more information on Attribute Groups see “Attribute Groups” on page 134.

Create Template Group - Attributes

This tab displays the attributes which are defined above the current item of the hierarchy. This is where you collect values for each attribute. Clicking on any attribute will bring up a window showing information specific to that attribute.

Fig. 4.5
Create Template Group Attributes Tab



The green, yellow and red lights next to some of the attributes indicate whether the attribute value has been overridden. A green light means it can be overridden, yellow that it has been overridden, and red that it cannot be overridden. The text box next to any red lighted attribute will be grayed and not allow entries. Click on the lights to view the source of the inherited content.

Select OK to add the New Template Group to the hierarchy.

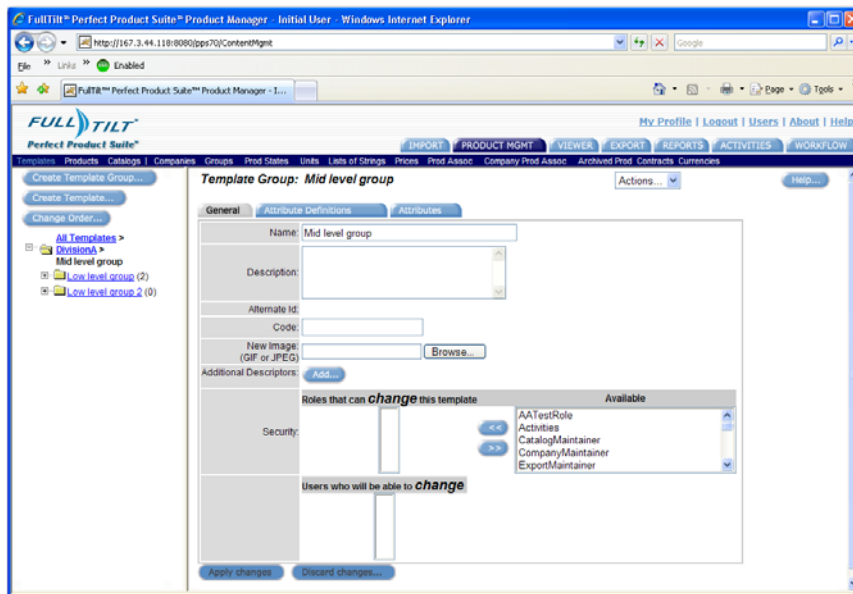
Modify a Template Group

You can edit the Template Group name, description and/or code name if you are assigned the Can Change Templates role.

To edit identifying information in the Template group, use the following steps:

- 1 From the Templates Tab of the Product Manager, drill down to the Template Group that you want to change.
- 2 Select the General tab and fill in or change all appropriate fields.

Fig. 4.6
Modify Template Group General Tab



Modify a Template Group - General Tab

You can edit the Template Group name, description and/or code name if you are assigned the Can Change Templates role.

To edit identifying information in the Template group, use the following steps:

- 1 From the Templates Tab of the Product Manager, drill down to the Template Group that you want to change.
- 2 Select the General tab and fill in or change all appropriate fields.

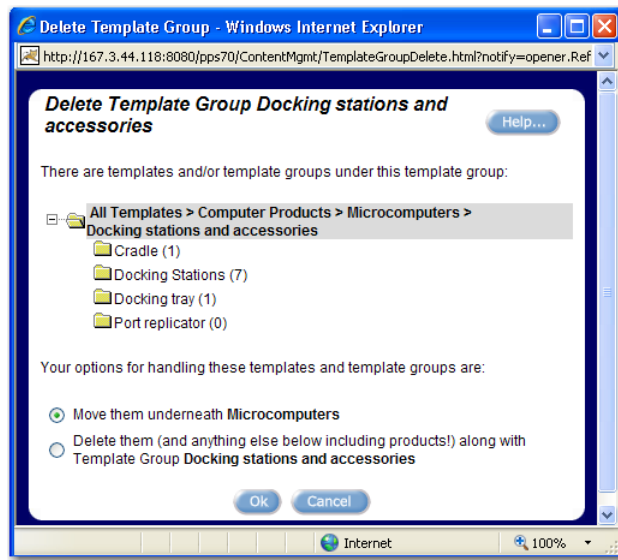
The data entry is identical to the template group create process.

Delete a Template Group

Important Deleting a template group deletes all subordinate templates and products. This powerful feature should be used judiciously. To delete a Template Group:

- 1 From the Templates Tab of the Product Manager, drill down to the Template Group that you want to delete.
- 2 Select the Delete action from the drop down list. The Delete Template Group window displays.
- 3 To move the templates and template groups underneath All Templates, or delete the templates and template groups, select the appropriate radio button (products and the entire Template Group are deleted). (This step varies based on whether there are any templates or template groups underneath the template group to be deleted, and whether the template group to be deleted is directly under All Templates).

Fig. 4.7
Delete Template Group



- 4 Select OK.

Move a Template Group

To move a Template Group to another location within the template hierarchy:

- 1 From the Templates Tab of the Product Manager, drill down to the Template Group that you want to move.
- 2 Select the Move action from the drop down list. The Move Template Group window displays.
- 3 Select the location you want to move to, and then select OK. Your Template Group has been moved.

Create a Template

A template specifies the fields that are important for a certain class of products. When a product is created or modified, Product Information Management uses the template to make sure that the proper fields are filled in with allowed values.

The three methods of creating a template are:

Copy Templates

- To create a template from an existing template - navigate the template hierarchy to the source template and select Copy from the drop down list. This seeds a new template with the same attribute names, data types and constraints.

Create Templates from import data

- At batch import time, if product data is encountered for new product lines, choosing Create Template will pre-populate the template and attributes based on the imported batch content.

Create a New Template using the following steps:

- 1 From the Content Manager tab, select the Templates tab.
- 2 Drill down into the Template hierarchy to the position where the new Template Group should be placed.
- 3 Select Create Template. The Create New Template window displays.

Note This window is the same as the Create New Template Group window, except in two areas, (for more information see “Create a Template Group” on page 65):

- A fourth tab, Validation script, is displayed.
- On the General Tab, two more fields are displayed.

Create Template - General Tab

Fig. 4.8
Create New Template-General

Product Description Pattern. Permits the dynamic generation of product descriptions from a combination of fixed text and attribute values. It ensures consistent product descriptions. To change the product description pattern, you can edit the pattern text directly (place your cursor in the Product Description Pattern text box area). To append a template attribute to the pattern, select an attribute from the Attributes list box, then click the Append button. The attributes can appear anywhere in the fixed text.

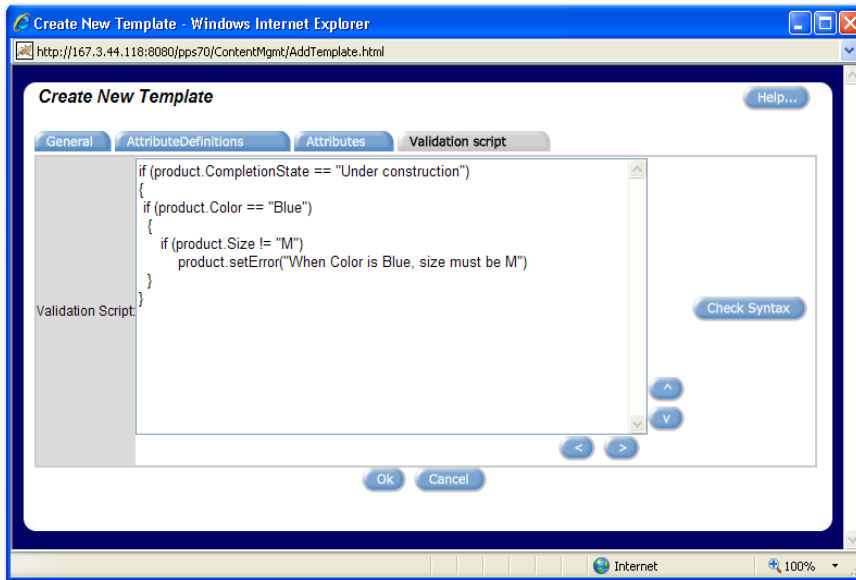
Note Adding a product description pattern does not destroy product descriptions in the product. If the description pattern is removed, the original product descriptions are restored.

Use Automatic Associations in this template. Used to make the template eligible for generation of product associations (cross references) automatically. When this checkbox is selected the Automatic Product Associations section is visible. See “Automatic Product Association Definition” on page 85.

Create a Template - Validation Script

Fig. 4.9

Create a Template-Validation script



The script example shown performs a cross-check. It checks products that are in the product state Under Construction to ensure that if their Color attribute is Blue, the Size attribute must be M (medium). If not, when the user attempts to record that combination of values an error message will be displayed "When Color is Blue, size must be M". Validation scripts can be created to perform cross-checking of product attribute values.

Modify a Template

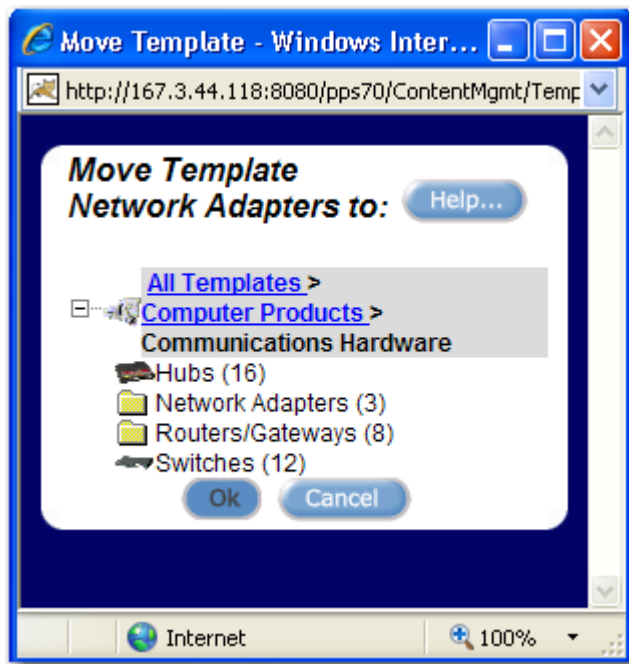
To edit a template, drill-down to the Template that you want to change in the Product Manager tab. Make changes as needed and choose OK to save and exit.

Move a Template

To move a template:

- 1 From the Product Manager tab, select the Templates tab.
- 2 Drill down to the template you want to move.
- 3 Click the Move action from the drop down list. The Move Template window displays.

Fig. 4.10
Move Template



- 4 Drill down to the new location in the template hierarchy for the template, and then click the OK button.

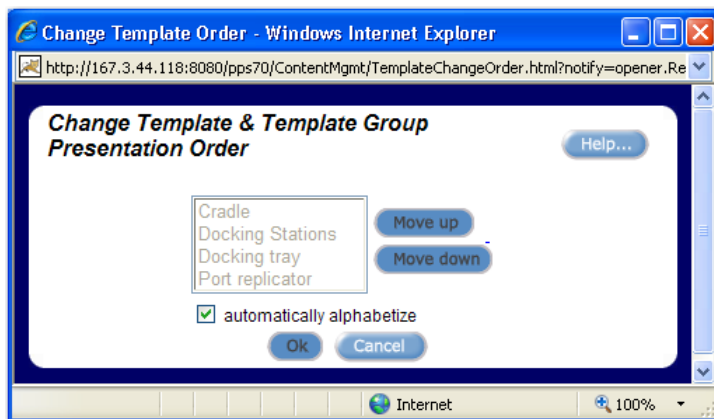
The template is moved to the new location.

Template Ordering

To change the order of the templates or template groups displayed select the Change Order button in the Template Hierarchy. The default ordering is alphabetized. The template order is inherited when Template Groups are auto classified into catalogs.

To change from the alphabetize default, deselect the automatically alphabetize checkbox.

Fig. 4.11
Template Order



Once this is selected, select the Template Group or Template name that is to be re-ordered by placing the cursor on the name and selecting it. Then, using the up and down arrows, reposition the selected template or template group.

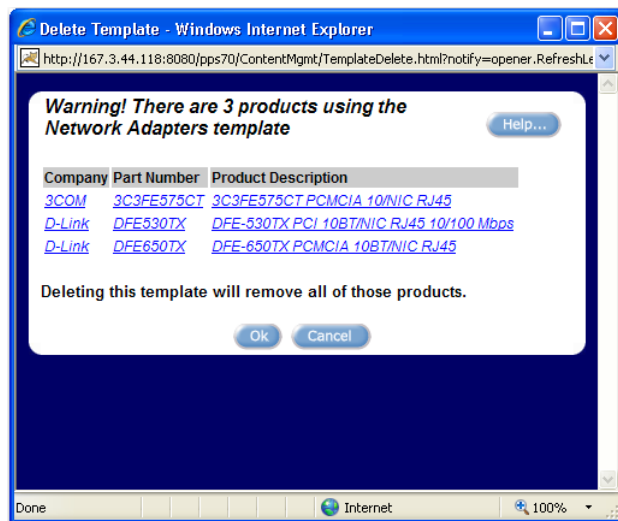
Delete a Template

You can delete a template and all the products using that template. Prior to deleting a template, Product Information Management verifies if there are any products using that template and displays a list of products that are using the template. If you want to view information on any of the products, you can select each product to view the information on the product. If no products are using that template, PIM indicates that it is safe to delete the template.

To delete a template:

- 1 Drill down to the template you want to delete.
- 2 Select Delete from the drop down list. A Warning displays.
- 3 Confirm Deletion.

Fig. 4.12
Delete Template



Template and Classification Descriptors

Descriptors can be defined for any level of the template or a classification hierarchy. To access this screen, navigate to a template or classification node, select the General tab, and choose the Add button next to Additional Descriptors to create a new value or select the hyperlink associated with the name of an existing Descriptor to change its current value or to delete the Descriptor.

Provide or change the descriptor's unique name and value and press OK to add or change a value.

Fig. 4.13
Descriptor

Template descriptors are inherited by classification nodes when the Auto classification feature is used when building catalog content.

New lines (carriage return, line feeds) are supported within template descriptors. However, Product Information Management's hierarchical display lists of descriptors remove the new line characters for display purposes. When viewed on this form and when appearing in export the descriptors will contain the new line.

Template Attributes

Add an Attribute to a Template or Template Group

A template attribute provides the definition for a parameter for products using a specific template. When a product is created or modified, PIM uses the template attribute to make sure that the field is filled in with allowed values.

To add attributes for a template:

- 1 From the interface, select Product Management. On the right side of the screen select the Attribute Definitions tab.
- 2 Use the maintenance hierarchy on the left side to drill down to the template or template group where you want to add attributes. The Attribute Definitions window displays an Add Attributes button in the lower left.
- 3 Select Add Attributes. The Template Attribute window displays.

Fig. 4.14
Add Template Attribute

The screenshot shows a web browser window titled "Template Attribute - Windows Internet Explorer". The address bar shows a URL starting with "http://167.3.44.118:8080/pps70/ContentMgmt/TemplateAttribute.html?". The main content area is titled "Attribute for Mid level group" and contains the following fields and options:

- Name (start typing name for list):** A text input field with a "Show Existing" button.
- Description:** A text input field.
- Values Apply To:**
 - ☐ All Templates (groups) in hierarchy
 - ☐ Values are Inherited
 - ☐ Values are Overridable by child Templates (groups)
 - ☐ All Templates (groups) and Products in hierarchy
 - ☐ Values are Inherited
 - ☐ Values are Overridable by child Templates (groups)
 - ☐ Values are Overridable by Products
 - ☒ Products
 - ☐ Identifying attribute (values appended to Part number)
 - ☐ Use attribute for Automatic Associations
- Datatype:** A dropdown menu set to "String".
- String Value:** A dropdown menu set to "Single line" and a "Max length:" input field.
- ☐ Multivalued
- Initial Value(s):** A text input field with an "Edit..." button.
- ☐ Templates (groups) / Products are required to have a value for this attribute
- ☒ Visible in the Product Viewer
- Catalog attribute groups:** A dropdown menu set to "None" and a "Search flag" input field.
- Other attribute groups:** A list box containing "APC", "ComputerAttributeGroup", "ExportAttributeGroup", and "Hard Disk Required". Navigation buttons "<<" and ">>" are between the list boxes.
- Buttons:** "Ok", "Cancel", "Add New...", and "Help..."

Name. Enter the name of this attribute. The name must be unique within the template groups that use it. The template name is the primary information displayed about a template.

Description. Enter a description for this attribute. The description is available upon request from some screens.

Values Apply to. Select appropriate box/boxes for attribute to apply.

Datatype. Select a data type from the drop-down list:

Note From the Datatype drop-down list, String, List of Strings, Numeric, Derived Numeric, and Derived String will all automatically alter the screen and require further input. For detailed information on data types see "Attribute Datatype Definitions and Usage" on page 81.

Multivalued. Allows the attribute to carry more than one value. For example, a color attribute can carry multiple colors.

Initial Value(s). An initial value is used only at creation to provide the value for an attribute that would otherwise be missing a value. Once the value is instantiated, the initial value is removed.

Templates (groups) / Products are required to have a value for this attribute. Indicates if a value must exist for this attribute in order to be entered or updated into the product data catalog.

Visible in the Product Viewer. Indicates if this attribute will be available for parametric searches in the Product Manager as well as Product Viewer.

Search Flag. Choose from the following:

- None
- Text
- Parametric
- Full (text and parametric)

Catalog Attribute Groups. Choose the attribute groups where you want this attribute to display. Use the left and right arrows to move attribute groups.

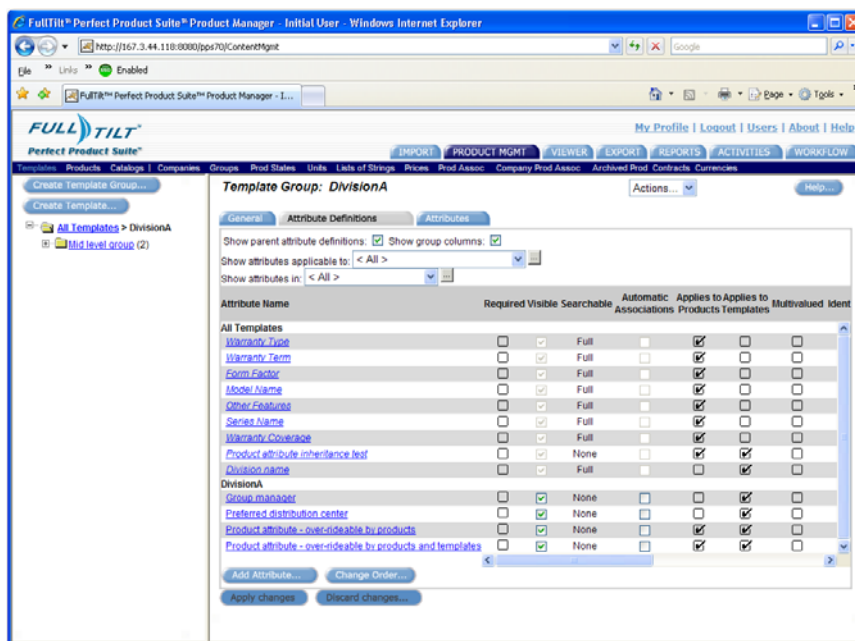
OK. Clicking OK completes the process.

Note Remember to click Apply Changes after the attribute is added to save information.

Modify Attributes

While in the Product Management tab, select Templates. In the left side of the screen, select or drill down to the template or template group which contains the attribute you wish to modify.

Fig. 4.15
Modifying Attributes



Select the Show Optional Parent Attributes box to display attributes and parent attributes for this template group. In the image above, we are at the template group DivisionA. The right side of the screen displays attributes under All Templates, and under DivisionA.

You can only modify attributes in the template or template group you are in. Click on an attribute under All templates to display attribute details For a detailed description of all fields see “Add an Attribute to a Template or Template Group” on page 76.

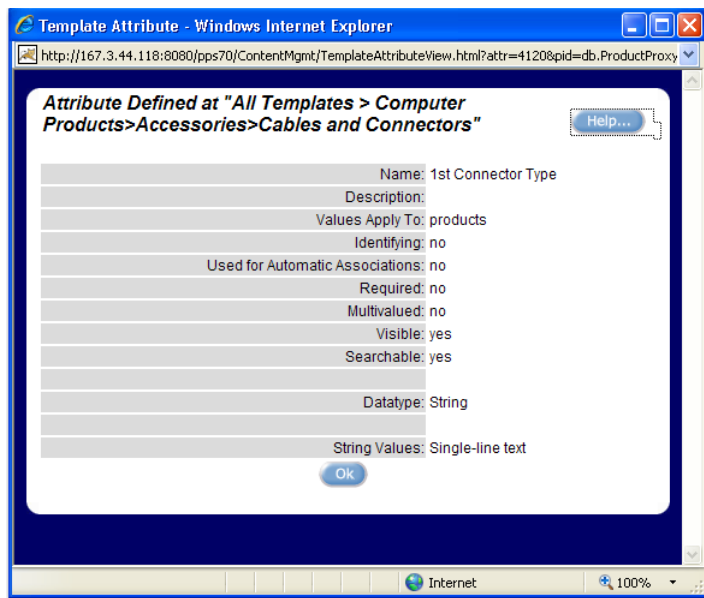
Edit the fields, as needed, then press OK.

View a Template Attribute

When you edit the product template, you can make changes to the template attributes (change the numeric value, minimum or maximum values, and the string and/or list of strings values). After you make changes to the attribute, click the link next to the attribute to view the Template Attribute window.

To view a template attribute, click on the attribute. The template attribute details display but do not allow you to change them. If you need to change the template attribute refer to “Modify Attributes” on page 78.

Fig. 4.16
Template Attribute View



Delete a Template Attribute

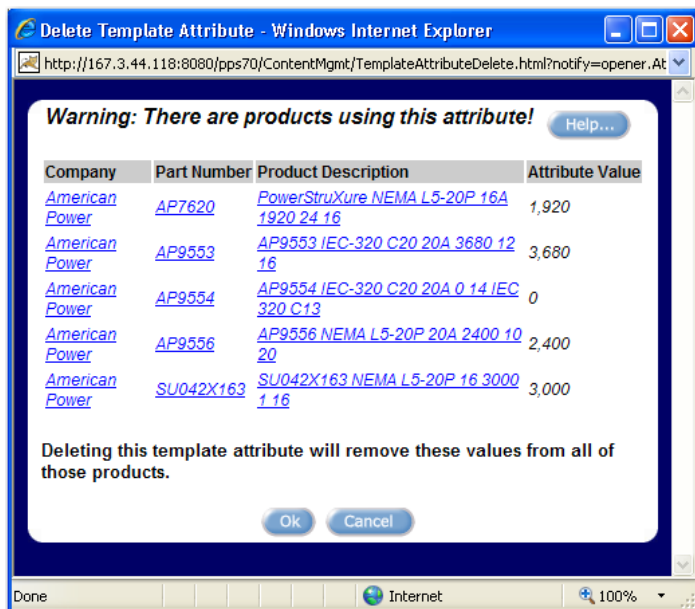
When you press the Delete button from the Template Attribute window, PIM checks to see if there are any products using that template attribute. If products are using that template attribute, a warning displays a list of products that are using that template attribute. You can select each product to view the information on the product.

You can delete the template attribute and PIM removes the template attribute as well as the attribute values for that template attribute in the products. Other product attributes are not affected. If no products are using that template attribute PIM indicates that it is safe to delete the Template Attribute.

To delete a template attribute:

- 1 From the Product Manager select the Templates tab.
- 2 From the All Templates folder, drill down to the template that contains the attributes you want to delete.
- 3 Select the attribute you want to delete. The Template Attribute window displays.
- 4 Select Delete. The template attribute confirmation form is displayed - if there are products with attributes a product list is included.

Fig. 4.17
Delete Template Attribute



Search for Existing Attribute Names

This screen is accessed from the template attribute screen, see “Modify Attributes” on page 78. Use this screen to locate the templates that include a specific attribute name.

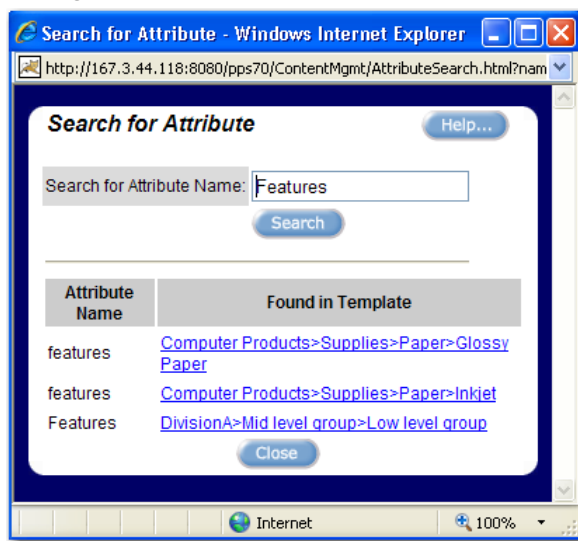
- When promoting an existing attribute from template level to global, use search to identify current usage.
- When creating an attribute, use search to encourage the use of like names for the same attributes across template.
- This screen appears automatically if you attempt to create a global attribute with a name that's already in use as a template level attribute.

Note This should be used to encourage usage of attribute names with exactly the same spelling. Reusing an attribute name does not cause inheritance of the attributes characteristics in another template. An attribute name can be reused in many templates, with different characteristics in each template. For example, Color may be widely used but have different valid values in each template.

To search for existing attribute names:

- 1 Type the attribute name in the attribute name box.
- 2 Select Show Existing. PIM displays a list of templates using the attribute name you provided.
- 3 To navigate to a specific template to view detailed definition of the attribute, select the template name.

Fig. 4.18
Searching for Existing Attribute



Attribute Datatype Definitions and Usage

Product Information Management supports a variety of data types.

- Numeric -- A numeric value that may or may not have a unit specified. Numeric data types can also use additional qualifiers:
 - Unit Type -- Specifies the type or class of unit (for example, length, weight, or voltage) for this numeric attribute.
 - Standard -- Specifies the unit from the selected Unit type that is used as the standard unit for this numeric attribute. Internally, PIM stores all attribute values for this template attribute in this unit.
 - Minimum -- Specifies the minimum allowed numeric value in terms of the Standard unit for this attribute. Can be empty if no minimum value applies.
 - Maximum -- Specifies the maximum allowed numeric value in terms of the Standard unit for this attribute. Can be empty if no maximum value applies.
 - Unit scaling - see “Scaled/Display Unit Maintenance” on page 83 for more information on this option.

- Optionally control the maximum number of decimals to display - recommended especially when unit conversions are being done.
- String.
 - String -- Any character string value.
 - Multi-line text -- Used for paragraphs of text. Permits embedded carriage returns and line feeds. For more on multi-line text data entry see “Multi-line Text Editor” on page 12.
 - Multi-line HTML - used to permit HTML markup of the text. For more on HTML data entry see “Multi-line HTML Editor” on page 10.
 - Option to constrain the maximum length of the string.
- List of Strings -- A constrained list of discreet values. These lists can be defined globally (associated with any number of template attributes) or locally, or tied directly to a single template attribute (custom). The list of strings constrains data entry and imported data to a finite list of string values.
- External URL -- A pointer to an externally managed website or file. Can be used for Manufacturer Safety Data Sheets, schematics or other such documents stored in binary format (for example, PDF).
 - <http://mycompany.intranet.com/msdslib/producta.htm>.
 - <http://mycompany.intranet.com/images/part123.jpg>.
 - <file://imageserverv/schematics/producta.pdf>.

Note The files and/or web servers referred to in an external URL must be available to the server on which Product Information Management is running.

- Derived string: A derived attribute is built as a combination of fixed text, attribute values and other items (for example, template name, company name and part number). To append a template attribute to the pattern, select an attribute from the Attributes list box, then select Append. Note that the attribute name included in the pattern is delimited by % signs. The attributes can appear anywhere in the fixed text.

Derived string attribute name	Definition	Result example
Dimensions	%Length% x %Width% x %Depth%	4.1 x 2.2 x 5.0
Short Description	%Series name% - %Model%	Inkjet Printer - 672

- Derived numeric -- A numeric attribute calculated as a formula using the values of other attributes. To append a template attribute to a calculation, select an attribute from the Attributes list box, then select Append.

Derived numeric attribute name	Definition	Explanation
Area	%Length% * %Width%	Multiply two attribute values
Volume	%Length% * %Width% * %Depth%	Multiply three attribute values
Length_halved	%Length% / 2	Use of a constant and division

Derived numeric attribute name	Definition	Explanation
Length_Squared	%Length% ^ 2	Raising to a power
Height_Meters	%Height_Feet%	Express the same value in a different unit. Calculation is automatic. The defined attribute simply uses a different standard unit from the source

- Boolean -- a yes/no flag.
- Date -- a date.
- Date/Time -- date and time.
- Fractional
- Scientific

Scaled/Display Unit Maintenance

A numeric template attribute defined with the optional unit type can also have scaled units. Scaled units can be used to choose an appropriate display unit based upon the value of the attribute. This is most frequently used for attributes with a wide range of values. For example, voltage (millivolts, volts, kilovolts), computer storage (bytes, kilobytes, megabytes, gigabytes).

To create display units for a numeric template attribute:

- 1 Select the Product Manager Tab. The Templates Tab displays.
- 2 Use the template hierarchy on the left to drill down to the template that contains the attribute with the need for display units. The Template window displays an Add New Attribute button on the right.
- 3 Select the attribute name hyperlink. The Template Attribute window displays.
- 4 Ensure that the attribute has a unit type chosen.

Fig. 4.19
Add Unit Range 1

Attribute for Product Specific Batteries [Delete...] [Help...]

Name (start typing name for list): [Show Existing]

Description:

Values Apply To:

- ☐ All Templates (groups) in hierarchy
 - ☐ Values are Inherited
 - ☐ Values are Overridable by child Templates (groups)
- ☐ All Templates (groups) and Products in hierarchy
 - ☐ Values are Inherited
 - ☐ Values are Overridable by child Templates (groups)
 - ☐ Values are Overridable by Products
- ☒ Products
 - ☐ Identifying attribute (values appended to Part number)
 - ☐ Use attribute for Automatic Associations

Datatype:

Numeric Values:

Unit type	Standard	Minimum	Maximum
Voltage	<None>		

Unit Scaling

From ($\geq$)	To ($<$)	Display Unit	
0	0.999999	milli-volt	[Delete...]
1	999.999999	volt	[Delete...]
1,000	999.999.999999	kilo-volt	[Delete...]

[Add...]

Display type: Maximum decimal places to attribute:

Custom fraction table:

☐ Multivalued

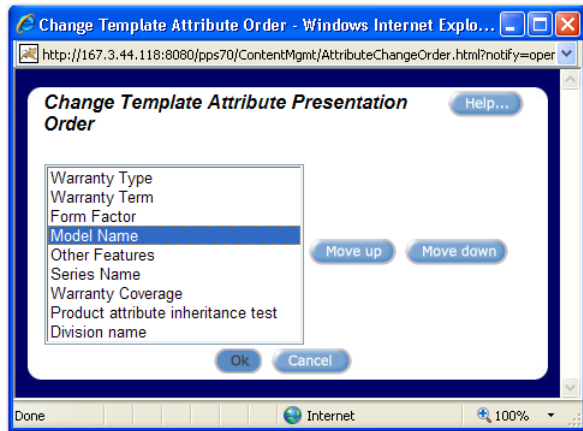
[Edit]

- 5 Select Add to create a new scaled unit. A popup displays. Chose a display unit and provide the range (in the standard for the unit type) for which the display unit should be used.
- 6 Select OK and repeat the process for each display unit.

Ordering Template Attributes

This screen controls the presentation order of the template attributes. While in the Templates screen on the interface, select the Change Order button on the right side of the screen under the list of attributes. To move an attribute up or down, select the target attribute and use the Move up or Move down buttons to the right of the list of attributes.

Fig. 4.20
Attribute Order



Automatic Product Association Definition

Automatic product associations create associations between similar products based on the values of the product attributes.

For example, if four attributes -- height, depth, length and weight -- define exact match products within a template, Automatic product associations can define the match criteria and PIM automatically calculates the cross-referenced products. Furthermore, additional matches can be defined for lesser, functionally equivalent matches-. For an exact match, height, depth, length and weight must match; if only height, depth and length must match, it would be a functionally equivalent match.

Prerequisites

- 1 The template must be defined to Use Automatic Associations.
- 2 The template attributes that will drive the match definitions must be identified.
- 3 The match definitions must be created.
- 4 A scheduled job (default name = Process Product Cross Reference Queue) is used to evaluate the criteria, the products and to generate the associations.
 - a The job can be scheduled to run periodically on a frequency that is appropriate for the environment.
 - b The job will recalculate the automated associations on several events:
 - New products in the template
 - Changed products in the template
 - Changed match criteria

Create Automatic Product Associations

- 1 Select the Product Manager Tab. The Templates Tab displays.
- 2 Use the maintenance hierarchy to drill down to the template where products will be associated automatically. The General tab for the template you selected displays in the right panel.
- 3 On the Template Maintenance General tab, turn on the Use Automatic Associations in this template checkbox.
- 4 Access the Attribute Definitions tab. Check the Automatic Associations box next to the attribute(s) that will be used to generate Automatic Product Associations.
- 5 Apply the changes to the template.
- 6 Back on the General screen, select Add Exact Match to create an initial definition. The Automatic Product Association window displays pre-populated with all the attributes chosen above with the operator of =:

Fig. 4.21
Automatic Product Association

Automatic Product Association:

Name:

Description:

Product Association Type:

Source Product Company:

Target Product Company:

Match Attributes:	Source Attribute	Operator	Target Attribute	Null Values Match	
	1st Connector Pins	=	1st Connector Pins	☒	Delete
	1st Connector Type	=	1st Connector Type	☒	Delete
	2nd Connector Pins	=	2nd Connector Pins	☒	Delete

Note The product associations created using "Add" or "Add Exact Match" definition types are hierarchical. If Add Equivalence Match is selected, it will only allow you to pick an association type that is marked Equivalence. The only operators available are = and !=. The product associations created using this type of definition are equivalence associations. Equivalence implies transitivity. In other words, if you associate product A with products B and C, then when looking at product B you will see products A and C, and when looking at product C you will see products A and B. Similarly, if you associate products A and B, and then associate products B and C, when you look at product A you will see products B and C (A=B, and B=C therefore A=C).

Fields:

Name. Provide a unique name for the definition, for example, Exact match, Close match or Substitute.

Description. Enter a brief description.

Product Association Type. Chose a Product Association Type from the drop down. This is the type of association which will be automatically created when 2 products meet the matching criteria defined below.

Source Product Company. Chose a source product company. If no restriction is being made on the company, choose <any>.

Target Product Company. Chose a target product company. If no restriction is being made on the company, choose <any>

Note Source and Target company can be used to create Up-sell associations and/or equivalent product associations between your company products and competitor products.

Match Attributes. Define the matching criteria.

Press OK to save the definition.

Once a definition is created - it can be used to create additional, similar definitions by using the Copy Action from the Action drop down list.

Products

This chapter provides information about the Product Manager. This chapter discusses the following topics:

Add Products **90**

Product Search **99**

Product Manipulation in Groups **104**

Products are those items which you plan to import and standardize in PIM. When you import products, they can include any number of identifying values and information.

There are two ways to add products in Product Information Management:

- Use the Import Manager to import your products. This is covered in “Adding a New Batch” on page 24.
- Use PIM to manually add your products using the Add a New Product window.

The Import manager is better suited for adding groups of products. Adding products using the Add a New Product window is best for individual or a small quantity of products.

Add Products

To manually add products, use the following steps:

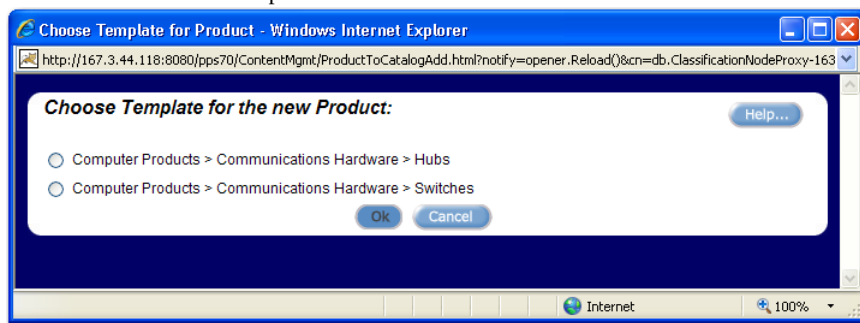
- 1 From the Product Manager Tab, products can be added manually through the Templates, Products or Catalog tabs.
- 2 From the Maintenance Hierarchy on the left side of the screen, drill down to the product template to which you want to add products. For example, select all the Template Groups until you reach the Template to which you want to add products.
- 3 Select Add Products (from the top left panel). The Add a New Product window displays six tabs which are explained below. Fill in all appropriate fields and select OK.

Note If you have multiple suppliers that provide data for the same product, then you need to segregate the data by vendor. These products will display vendor and vendor part number fields, instead of the manufacturer and manufacturer part number fields. The database is configured to segregate by vendor when PIM is setup. Refer to the Administrator's Guide for more details. Identifying products by manufacturer or vendor is a feature available in version 1.4 of the application.

If you are positioned on a catalog node that contains a single template, this screen is by-passed, the new product is associated with that template.

If there's more than one template in the catalog classification leaf node, a list of the mapped templates will be displayed for selection and you'll proceed as defined below.

Fig. 5.1
Add Product - Choose Template



Chose one of the template's radio buttons in the left margin Once a template is selected, press OK to continue with creation of the new product.

Add Products - General Tab

Use this screen to enter identifying information for the product.

Fig. 5.2

Add Product -General Tab

Company. Use the drop-down to choose the appropriate company. If you need to add a new company, select the Add New button. To view information about the existing company select the View button. See “Company” on page 132.

Part Number. Enter the part number associated with this product.

Description. Enter a description for this product. The Description is available upon request from some screens.

Product State. Use the drop-down to choose Under Construction, Ready for Approval or Obsolete Pending.

Product Image (GIF or JPEG). You can associate an image related to this particular product. An iconized version of the image will be displayed next to the template in all hierarchical views. To provide a product image, select Browse, next to the Product Image field. The Choose file pop-up window displays. On the Choose file pop-up window, select an image file from the Look in drop-down list, and then select Open.

Note Company and Part number are required fields.

Add Products - Attributes

This tab displays the attributes which are defined above the current item of the hierarchy. This is where you collect values for each attribute. Clicking on any attribute will bring up a window showing information specific to that attribute. For information on attributes see “Template and Classification Descriptors” on page 75.

Green, yellow and red lights will appear next to some of the attributes to indicate whether the attribute value has been overridden. A green light means it can be overridden, yellow that it has been overridden, and red that it cannot be overridden. The text box next to any red lighted attribute will be grayed and not allow entries. Click on the lights to view the source of the inherited content.

Fig. 5.3
Add Product - Attribute Tab

Add a New Product using template MVA Template

General | **Attributes** | Bundle | Product Associations | Company Associations | Pricing

Show optional parent attributes: ☒
 Show attributes in group: < All >

Series Name:
 Warranty Coverage:
 Product attribute inheritance test: aaab
 Product attribute - over-rideable by products: The mid-level value
 Product attribute - over-rideable by products and templates: The mid-level value
 Features: A shared set of features...

* required fields

Ok Cancel

To provide Attribute values for the product, choose the Attributes tab. Type the values in the field(s) to the right of the attribute name. To view a template attribute's definition, select the attribute name.

The attributes for a template have specific data types and constraints, the display will adjust accordingly. Examples of data types:

- Numeric - numeric data with an optional unit of measure
- String attributes permit the entry of any character value in the field
- List of Strings attributes will display a drop down list of available values
- External URL points to a file, inter or intranet based document
- Additional information on all supported data types

Add Products - Bundle Tab

Fig. 5.4
Add Product - Bundle Tab

Add a New Product using template Cables and Connectors

General | **Attributes** | **Bundle** | Product Associations | Company Associations | Pricing

Show Current Only: ☒
 Parent Bundle Products

New product: Bundle

Delete	Part Number	Company	Effective Date	Quantity (0 - ...)	Rebate?

* required fields

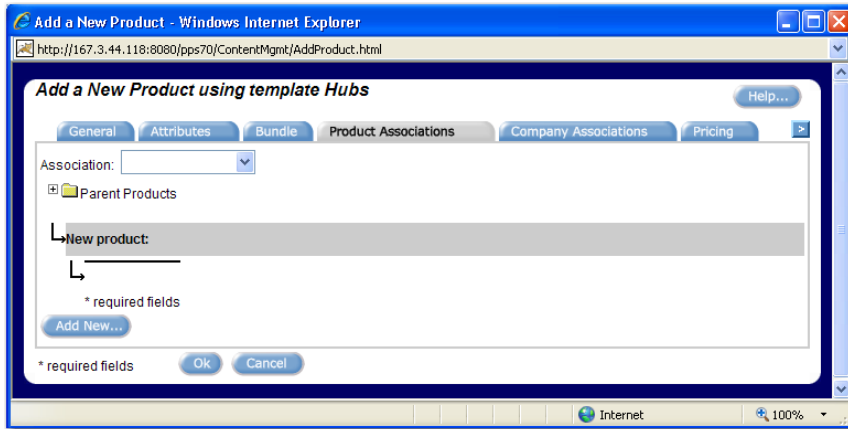
Add New... Ok Cancel

Bundle is a special instance of a product association. It shows up on your display as a separate tab because the product association type called Bundle has a setting that causes it to show up as a separate tab. Depending on the system content one or more of these may (or may not) exist. Bundle's usage is nearly identical to the product association tab - except that you cannot change the association you are viewing - it's hard wired to Bundle.

Add Products - Product Associations

Fig. 5.5

Add Product - Product Associations Tab



Product Associations are used to relate individual products to one another. Examples of usage would be for creating hierarchical relationships between products (for example, kits, packaging information, bill of materials) or peer-to-peer relationships between products (for example, up-sell, cross-sell, functional equivalent). For more information on product associations see "Product Associations" on page 143

In a hierarchical association display, pressing the plus sign + to the left of a child makes the children display. That process can be repeated to see the children of a child as below.

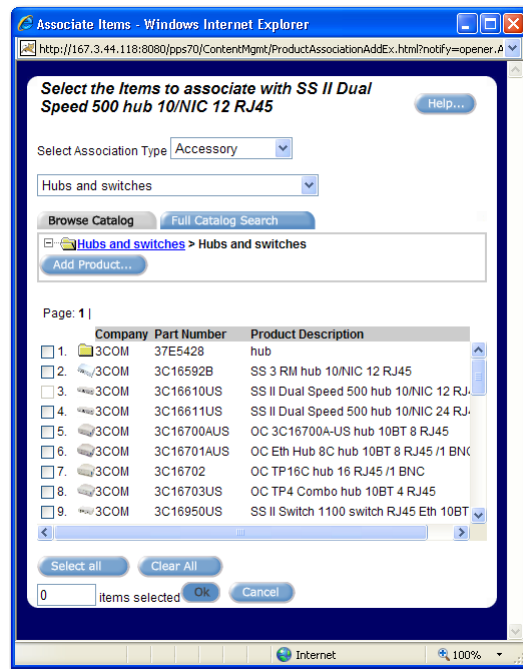
Note Only the immediate children's content can be edited on this form. To modify the grandchildren press the hyperlink of the desired product.

For Hierarchical associations, delete a product or products from the product association list by selecting the appropriate delete checkbox. When OK is selected the product associations will be deleted.

For Equivalence associations, the "Delete..." button allows you to select one or more equivalence associations to be deleted. Deleting one or more of the associations will delete the equivalence between all selections.

To add new product associations select the Add New button.

Fig. 5.6
Add Product Association



The selected product that will own the relationships is displayed at the top of the screen. Use the following steps to add a product association.

- 1 Choose the product association type from the drop down (in the example below, Accessory).
- 2 Choose a catalog to browse or search.
- 3 Traverse the catalog to locate products to be associated.
- 4 Check the boxes to select the product(s) to be associated.
- 5 Press OK to add the associations to the database.

If a product to be associated cannot be found, it can be added by selecting the Add Product button that will appear on the Browse Catalog tab whenever the chosen product class supports adding products. The product will be added and classified using these rules:

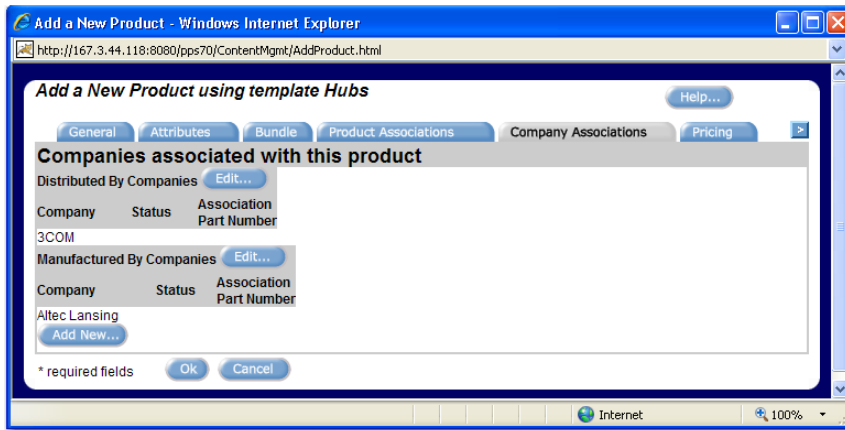
- If the current catalog node has one template auto-mapped to it, that mapped template will be used.
- If the current catalog node has more than one template auto-mapped to it, you will be prompted to select which template you would like to use for the new product.
- If the current catalog node has no templates auto-mapped to it, you will be prompted to select the template from the template hierarchy.
- If you are browsing the master catalog, the current template will be used.

The current catalog can also be searched using the Full Catalog Search tab, which allows you to search by Part Number, Text within the product's description or other attributes, or by Product Completion State.

Add Products - Company Associations

Fig. 5.7

Add Product _ Company Associations Tab



Company Associations are used to relate products to one or more companies. Select Add New to add a company association. This will bring up the Select Company to associate with product screen. Fill in the relevant details and select OK to add the product company associations. For more information on adding or viewing a company see “Company” on page 132.

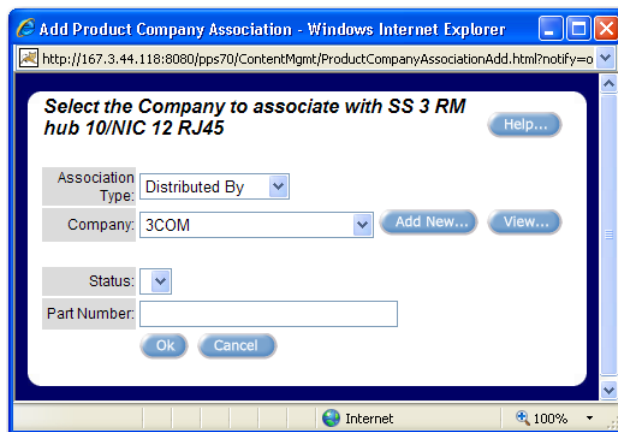
To edit or delete the product company association press the Edit button to the right of the product company associations on which you'd like to operate.

- The product company association type and selected product that owns the relationships is displayed at the top of the screen.
- The associated companies are listed.
- Chose from the company by selecting them.
- Edit information or select the boxes of the products to be disassociated.
- Press OK to remove the associations from the database.

To add a new company association, select the Add New button.

Fig. 5.8

Add New Company Association



The selected product that will be associated with a company is displayed at the top of the screen.

- 1 Chose the association type from the drop down (in the example below, Trading Partner).
- 2 Chose a company to be associated with the product.
- 3 Optionally, choose a status.
- 4 Optionally, assign a part number for the relationship.
- 5 Press OK to add the association to the database.

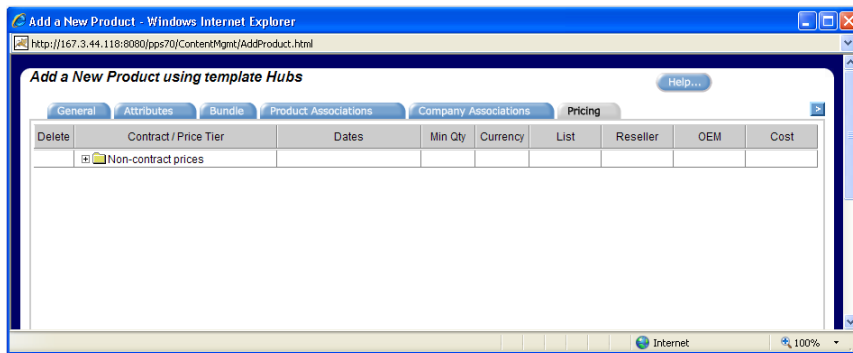
Note Product Company Associations can be created en-masse for a list of products from the Products Found - group operations screen.

Add Products - Pricing

Prices are defined to be unique by the combination of date range, minimum quantity and currency code. For more information on Pricing see “Price Definition” on page 142.

Prices can be created to override a price for a period of time - for example, a set of summer discounts. This override feature can be used in conjunction with the Export manager's automated delta detection to trigger price changes automatically when the override date arrives.

Fig. 5.9
Add Product - Pricing Tab



To provide or view pricing information select the Pricing tab. To add a price select the Add New button in the bottom left corner.

Fig. 5.10
Product Price Add

The screenshot shows a web browser window titled 'Add New Pricing - Windows Internet Explorer'. The address bar shows a URL starting with 'http://167.3.44.118:8080/pps70/ContentMgmt/ProductPriceAdd.html?notify=opener.PricingChange'. The main content area is titled 'Add New Pricing' and contains a 'Help...' button. Below the title is a 'Contract:' dropdown menu. A 'Price Tier:' dropdown menu is also present. There are two date pickers: 'Effective date:' and 'Expiration dates:'. Below these is a 'Minimum Quantity:' text input field. The 'Currency:' is set to 'USD' with a dropdown arrow. At the bottom of the form are 'List:', 'Reseller:', 'OEM:', and 'Cost:' text input fields. 'Ok' and 'Cancel' buttons are at the very bottom of the form area.

Fill in the appropriate fields and select OK.

When you are finished adding the product information select OK. The product is added.

Actions From the Drop Down List.

Check in	Version Mode only - Check in is active if the product is a work version. Checks the work version of the product into production. If a production version previously existed, it's placed in the archives.
Check out	Version Mode only - Check out is active if the product is a production version. Initiates the creation of a work copy of the production product.
Unclassify	If the product is currently classified in a catalog, this button opens a window to unclassify the product from one or more Product classes. Note: Products are classified via the 'Add Classifications' button in the left panel.
Copy	Initiates copy of the product.
Delete	Initiates delete of the product.
Find Similar	Initiates an interchange search. There are two methods that can be used in doing an Interchange search. If the product's template is associated with a attribute group called Interchange, PIM automatically searches for products with like values for the Interchange Attributes. If the product's template is not tied to the Interchange attribute group, PIM permits the user to identify the attributes on which the Find Similar search should be performed.
Compare Versions	Version Mode only - Initiates a comparison of the work, production and archived versions of the product.
Print	Initiates print of the product detail that's displayed.

Deleting Products

Products can be deleted in the Product Manager under the Templates, Catalogs or Products tabs in the product detail screen. To delete a product, use the following steps:

- 1 Drill down to the product you want to delete.
- 2 Select Delete from the Actions drop down list.
- 3 A pop-up confirmation appears.
- 4 Select OK to proceed with the delete.

Editing a Product

A product uses a template to define what information should be provided for that product when it is added or updated in the product database. You can edit products from the Product Manager's Templates or Catalogs tab (drill down into the catalog to the product(s)).

To edit a product, use the following steps:

- 1 From the Product Manager, select the Templates tab.
- 2 Drill down to the product that you want to edit.
- 3 Select the product that you want to edit (blue link) from the Product Description column. The right panel displays the product's information.
- 4 For information about the tabs and fields see “Add Products” on page 90.
- 5 Select Apply Changes. PIM saves the changes you made to the product.

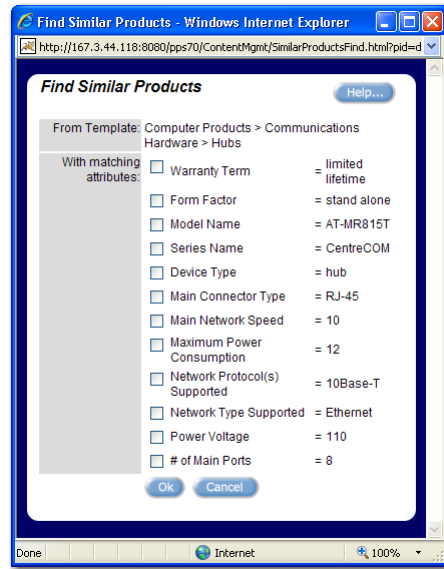
Find Similar Products

The Find Similar Products is located in the action drop down list on the product detail screen.

There are two methods that can be used in doing a Find Similar -or- Interchange search.

- 1 If the product's template is associated with an attribute group that is marked as Interchange, PIM automatically performs a reverse search for products with like values for the Interchange Attributes. The results are displayed in the products found screen.
- 2 If the product's template is not tied to the Interchange attribute group, PIM permits the user to identify the attributes on which the Find Similar search should be performed. Under those circumstances the user will see a screen like this:

Fig. 5.11
Similar Products Find



Select the checkbox to the left of the attribute to include in the Find Similar search, then press Show Products to proceed to product's found.

The product that was used to drive the search is included in the list that's displayed. This permits easy comparison between the targeted product and those that are similar to it.

Product Search

Products allows you to:

- Search for products using either parametric search or text search
- Operate on the products found in a variety of ways:
 - Edit and delete products one at a time
 - Group edit and delete products or selected groups of products
 - Search/replace strings on selected groups of products
 - Classify products
 - Compare Products
 - Export products

If you only have a partial description, company name, part number and/or product state, use the text search method. If you know the specific type of product you want to view, for instance, copper wire products with black insulation, 6 conductor/wires in 1000 foot in length, use the parametric search.

Text Searching

You can search for products by their description, manufacturer name and/or part number. To search by description, company name, or part number, use the following steps:

- 1 From the Product Manager tab, select the Products tab.
- 2 Chose the Full Catalog Search tab.
- 3 Choose the catalog you'd like to search within and select Search, in the left pane.
- 4 You have the choice of text searching or parametric searching. Text searches can be performed on:
 - a Product text across all manufacturers.
 - b Product text within a single manufacturer.
 - c By manufacturer part number.

Fig. 5.12
Text Search

- 5 If applicable, type the product text in the text field. To search for the exact phrase use double quotation marks. Product Information Management will search the product descriptions and attribute values of the product that are searchable. To limit the text search to the product description, choose the checkbox labeled search product description only.

Note Depending upon the underlying database's capabilities, Product Information Management provides advanced search features beyond simple matching. For example, wildcard, sounds like, fuzzy-search and negative searches are all supported. Refer to the Text Search Examples for details for your environment.

- 6 If you'd like to narrow the search to include only the products for one manufacturer, select the manufacturer from the drop down list-box. Optionally, type in the manufacturer name in the Manufacturer name field.

Note Within the drop down list of manufacturers, use the up and down scroll bar to view the entire list of available manufacturers. Type the first letter of the manufacturer's name to position at that point alphabetically.

- 7 If you're searching for a specific part and you know the manufacturer part number enter that in the Manufacturer Part Number field. To perform wildcard searching on part number substitute an asterisk (*) for the string. For example, to find any part that ends in A123, search for *A123.
- 8 If you're searching for products of a particular product completion state, choose the state from the drop down selection list.
- 9 Select Search. PIM displays the Products Found window with the products) you selected based upon your selection criteria in descending order of relevance.

Text Search Examples

Desired Search	SQL Server	DB2	Oracle
Products with the exact phrase tree climbers.	"tree climbers"	"tree climbers"	"tree climbers"
Products with either of the words tree or climbers within the text.	tree climbers	tree climbers	tree climbers
Products with both of the words tree and climbers within the text.	tree only climbers	tree only climbers	tree only climbers
Products with either of the words tree or climbers within the text that do not contain the word leather.	tree climbers only NOT leather	tree climbers only NOT leather	tree climbers NOT (leather)' NOTE: including an and before the not causes a failure.
Products with words sharing the prefix climb (for example, climbers, climber, climb).	Climb*	climb%	Climb*
Wildcard. Products with words that begin with cli.	cli*	cli%	cli*
Wildcard. Products with words the begin with clim and have exactly one (or more) other trailing character.	clim_	clim_	clim_
Wildcard. Products with the string limb embedded within them.	*limb*	%limb%	*limb*

Desired Search	SQL Server	DB2	Oracle
Sounds like smith.	n/a	SOUNDS LIKE smith	'!smith'
Fuzzy. Products that are misspelled or search words that are misspelled. Products that have words that might be misspelling of cat and read.	n/a	n/a	-cat- read For the purpose of the search above, cat would be expanded these words: cat, cats, calc, case. Read would be expanded to: read, lead, real.

SQL Server Specific Notes

Some additional explanation of SQL Server's noise words and their effect upon searching. They aren't exactly ignored at search time. Consider them placeholders. When searching, a token that is a noise word must be present to get a hit on a string with an embedded noise word - when doing an exact match.

An example may help. Assume the text Level of confidence existed in a product's searchable text and the words of and the and all single digit numbers are noise words (similar to default conditions in SQL Server). Each of the following searches would find products with the text Level of confidence:

- Level of confidence.
- Level and confidence.
- Level 4 confidence.
- Level 5 confidence.

These would not find a match:

- Level confidence.
- Level assuming confidence.

A simple search, with unquoted content is basically looking for the tokens (words) anywhere in the search text in any old order. The presence of an extra word won't help find something, but it won't prevent it either. The relevance ranking is calculated based upon the total number of searchable words and the number of discreet matches. Each of the following searches would find products with the text Level of confidence:

- Level of confidence.
- Level confidence.
- Level assuming confidence.
- confidence.
- Level.
- confidence level.

Parametric (Attribute) Searching

The products in the Product Information Management database can contain attributes. These attributes are the details that describe products. For example, the attributes associated with staplers may be color, price, material model or paper capacity.

You can narrow your search of products by selecting the values specific to each attribute. For example, if you only wanted to view/compare black staplers for \$15.00, you would select black as the value for the color attribute and \$15.00 for the value for the price attribute to narrow the amount of staplers that display. You can then see the number of available products based on the criteria you select.

To perform a parametric search, use the following steps:

- 1 Select the Product Manager tab.
- 2 Select the Products tab.
- 3 Select the catalog that you want to view.
- 4 Chose the Parametric Search tab.

Parametric searches can be performed at two levels:

- Globally within a catalog - on global attributes.
- At a leaf node in a catalog on global or template level attributes.

To search globally within the catalog, position at the root of the catalog - you will see the following screen.

Fig. 5.13
Parametric Search

The screenshot displays the 'Parametric Search' window within a software application. The top navigation bar includes tabs like 'Templates', 'Products', 'Catalogs', 'Companies', 'Groups', 'Prod States', 'Units', 'Lists of Strings', 'Prices', 'Prod Assoc', and 'Company Prod'. The 'Products' tab is active, and the 'Master Catalog' is selected. The breadcrumb trail indicates the search is being performed on 'Master Catalog > Computer Products > Microcomputers > Notebooks'. The search criteria are defined by a list of attributes, each with a dropdown menu and a 'Retrieve values' checkbox. The attributes include 'Company', 'Product Completion State', 'AC/Auto Adapter Included', 'Audio Type Included', 'Average Battery Life', 'Battery Type Included', 'Cache Type Included', 'Form Factor', 'Graphics Bus Type', 'Included Hard Drive Access Time', and 'Included Hard Drive Type'. At the bottom, the interface shows 'Products matching these attributes: 11' and a 'Show Products' button.

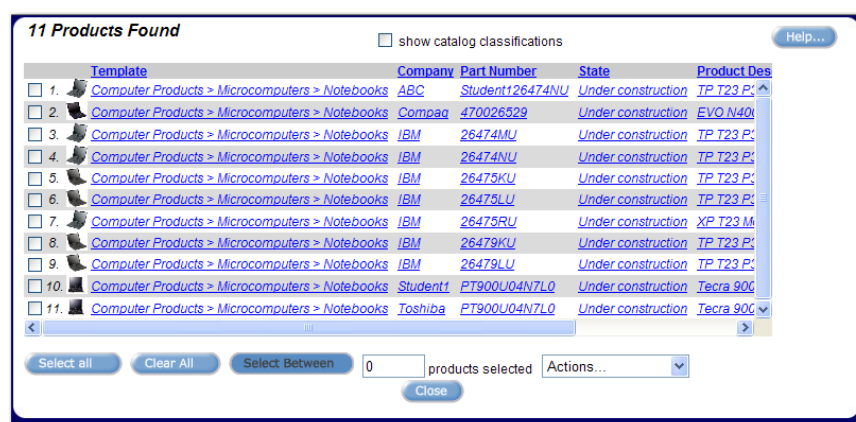
To search at a leaf node, navigate through the classification hierarchy to the desired node. The Search for products matching panel displays all the searchable attributes associated with the leaf node you selected. The number of products matching these attributes is listed at the bottom of the window.

To select more than one value, select the  immediately to the right of the drop down. The pop-up window displays to permit multiple selection

To view all the products that match that criteria, select Show Products.

The Products found window displays the template location, catalog location(s), manufacturer name, part number, and product description for all the products found. For more information about processes from the Actions drop down, see “Product Manipulation in Groups” on page 104.

Fig. 5.14
Products Found



Product Manipulation in Groups

Product search can also be used to affect (move, edit, delete, assign classifications, for example) groups of products. The products found window can be accessed by way of the search screens within Product Management.

Group Operations on a selection of products is accomplished by choosing the desired action from the drop down list. To operate on a group of products, identify the subset of products by marking the checkbox for the products in the left margin. To select all products on a specific page, press Select All. Notice that the number of products selected at the bottom of the screen reflects your selections.

If a text search was performed, the products are listed in order from highest to lowest relevance based upon the search criteria. Pagination is managed by pressing Next and Prev. Alternatively, by selecting a page number you'll go directly to the desired page.

From the Products Found window you can scroll through the product list, review product classifications (optional checkbox), operate on products one at a time, or select a group of similar products to operate on together.

Products can be operated on one at a time. To operate on a single product, locate the product in the list and select either the product description, or manufacturer link. This will take you to Editing a Product. Change or delete the product as necessary and return to the list.

Group Operations (Actions drop-down):

Compare:	Side by side comparison of selected products.
Print:	Prints the selected copies to PDF. Permits printing of PDF to a printer.
Check Out:	Check out the selected products into a WORK product state.
Check In:	Check in the selected products into a PRODUCTION product state.
Classify:	Classify the selected products into an existing or new catalog.
Group Edit:	Mass edit the common attributes for the selected products.
Search/replace:	Search and Replace text for the selected products.
Export:	Exports the selected products.
Move:	Move selected products to a different template.
Delete:	Deletes the selected products.
Companies:	Associate selected products with one or more companies.

Note To show the catalog classifications for the product(s), select the show catalog classifications check box (in the upper-right corner of the window). The Products Found window displays an additional Catalogs column with the Catalog information about the product.

Note The Next and Prev buttons, page numbers and the remember selections across pages check box only appear if more than one page of products have been found

Product Comparison

The Product Comparison window is accessed by selecting Compare from the action drop down list. All the products selected are displayed side-by-side for easy comparison.

Fig. 5.15
Product Comparison



The attribute names are listed in the left margin and the product names are listed at the top of the window.

Attribute values are shown in black text if the data is the same across all selected products. Attribute values highlighted in red text clearly identifies information that is different between the products you selected.

To drill into and edit the details for a particular product, select the link associated with the name of the product, which is located at the top of the window. The product details and, if available an image of the product display in a product window.

If an image is available for the product, an iconized version of it appears directly below the product description. To view the full-size image of the product, select the image. The image of the product displays in an image window.

Attributes that are defined as External URLs (typically schematic diagrams or MSDS sheets maintained in a separate location) are hyperlinks. select the hyperlink to view the collateral document.

Product(s) Check Out and Check In

Products can be moved out of a catalog and into a production state using the Check In selection from the Actions drop down list. Products in a production state cannot be modified. When Check In is selected the window displays a drop down list of valid work states, select the appropriate state, then click OK.

To move a product out of production, use the Check Out option from the Actions drop down list. As before, select the appropriate product completion state from the drop down list and click OK. Once products are checked out, they can then be modified.

Group Edit

The Group Edit action permits you to perform mass updates against a selected set of products. It's initiated by choosing the Group Edit action on the Products Found window.

To group edit specified information about a product variable, use the following steps:

- 1 Search for a set of products from the Products tab within Product Management. From the products found screen select a subset of products on which you'd like to operate. Chose the Group Edit action from the action drop down list.
- 2 The Group Edit screen displays.

Fig. 5.16
Group Edit

- 3 You are presented with a two column list of those attributes that are in common for the selected products. The from value is on the left side. The to value is on the left.
- 4 To perform a mass edit, simply select a value in the drop down list for an attribute on the left (from) side of the display. Then, provide the new value on the right side. If the attribute is constrained by a list of strings, you'll have the option of selecting from the list. When you press OK, the products that contained the from side value on the left side be modified to contain the to value from the right side, the Products Found screen will be re-displayed, the products will reflect the new values.
- 5 At any time, if you do not want to continue with the group edit, select Cancel.

6 Options:

- a** For the selected group of products, you can process more than one attribute at a time. Simply selected define additional from/to values prior to pressing OK.
- b** When operating on heterogeneous products (come from more than one template), group edit reduces the list of available attributes to reflect those that are common to the product list. The attributes that are not available are listed at the bottom of the screen.
- c** Null processing. To provide attribute values for attributes that are currently null, select the value [Null] from the drop down. If you have products with attributes that you'd like to have no value, use the checkbox labelled make null on the to side.

Searching for and Replacing Product Information

You can search for and replace certain information about products when you select Search/Replace action from the Products Found window. You can search for and replace the following variables on products:

- Product description
- UPC
- String attribute values
- Numeric attribute values

Rather than updating each product separately, you can search for the products, and then replace text values for all the products in one operation. For example, suppose Company A starts to produce its insulated copper wire in a black insulated material, rather than a white insulated material. The search/replace feature allows you to search for the product description white insulated copper wire and replace all the products with that description to black insulated copper wire.

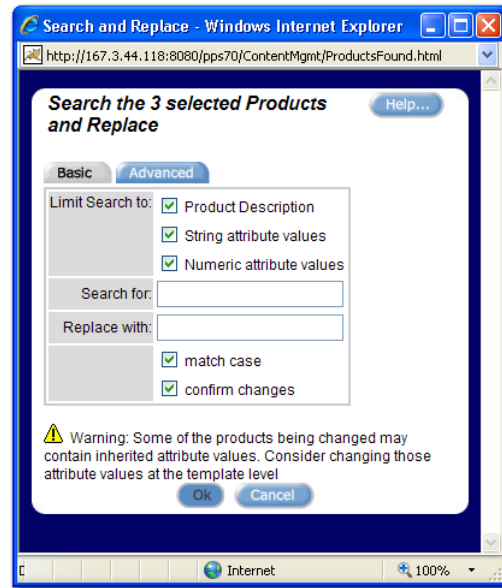
Also, you can specify whether text must match the same case or if mixed case matches are allowed (for example, searching for some value would not match Some Value unless the search was mixed case).

Additionally, you can specify whether you want PIM to confirm all replacements with you before making them.

To search and replace specified information about a product variable, use the following steps:

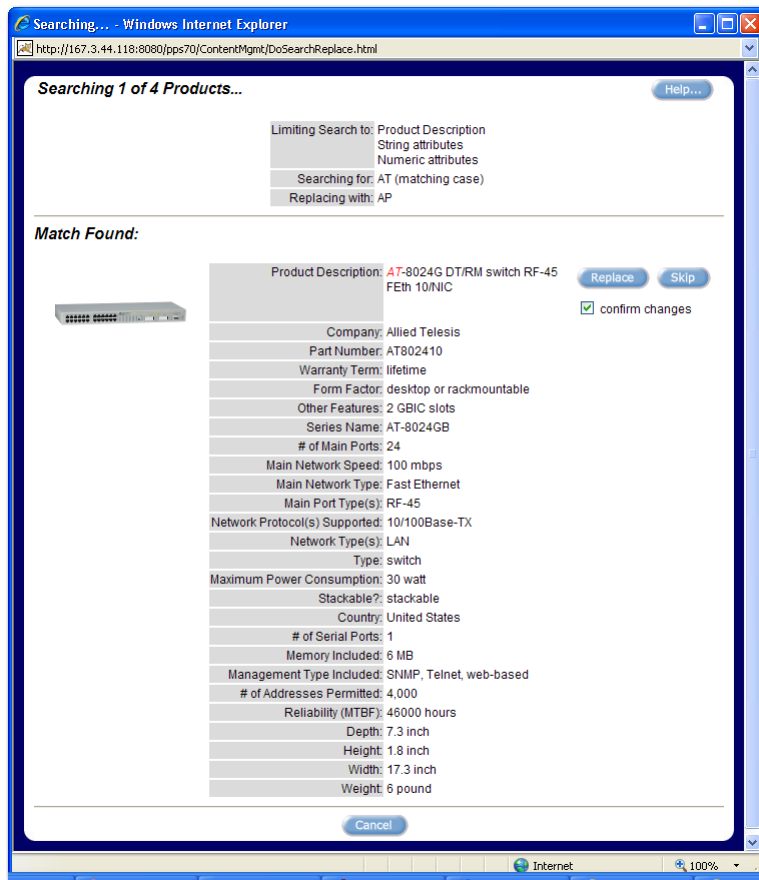
- 1 Search for a set of products from the Search tab within Product Management. From the products found screen select a subset of products on which you'd like to operate. Chose the Search/Replace action from the action drop down list.

Fig. 5.17
Basic Search and Replace



- 2 Check the appropriate check box(es) to limit the search to Product Description, UPC, String attribute values, and/or Numeric attribute values.
- 3 Type the text in which you want to search in the Search for field.
- 4 Type the new text in the Replace with field.
- 5 If you want to match the case of the words, check the match case check box.
- 6 If you want to confirm the changes, select the confirm changes check box.
- 7 Select OK. The Searching window displays the status of the search and replace operation.
- 8 If a match was found and you choose the confirm changes option, the next product found will be shown with the match highlighted.

Fig. 5.18
Search Result



- 9 If you want the match to be replaced, select Replace. If you do not want the match replaced, select Skip. Also, if you would like all subsequent matches to be automatically replaced without further confirmations, un-check the confirm changes check box.
- 10 If you do not want to continue with the search/replace, select Cancel.
- 11 If there are no more matches found, then a summary window will appear showing the number of products searched and the number of changes made.

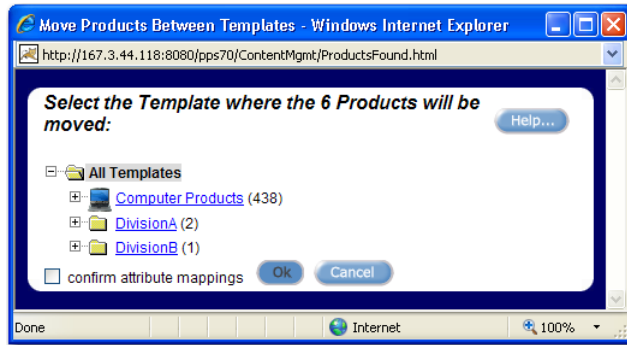
Move Products

Move Products is chosen from the Products Found screen's action drop down list. This action is used to choose the template to which the selected products are to be moved. Once a template has been chosen, and the operator presses OK the product move is initiated. Under the best circumstances, a product move is initiated and completed simply by pressing OK. Under other circumstances, user intervention will be required to handle exceptions that are detected by the software.

An example of an exception is an attribute value for a product that violates the constraints for the target template's matching attribute name. In the event there are exceptions, the Move Products Exceptions screen will be displayed to permit the user to resolved the exceptions.

The user has the choice to confirm attribute mappings by selected the checkbox in the lower left side of the form. When selected PIM will show the Move Products Exceptions screen even if all the products could be automatically moved. You might choose this option to ensure you have the option to manually map attributes or simply to confirm the mappings.

Fig. 5.19
Move Products



Move Products Exceptions

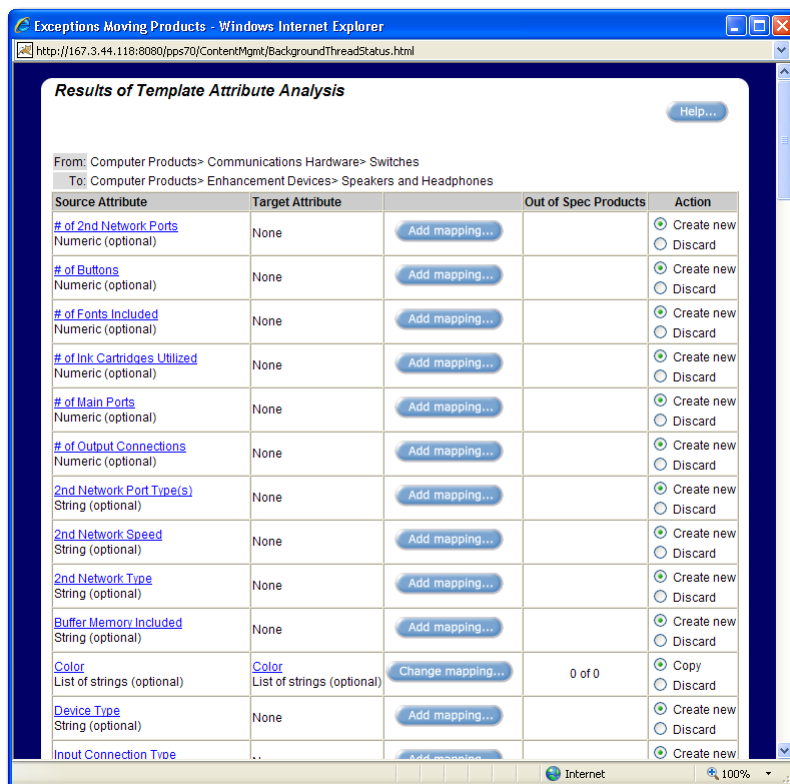
Once a template has been chosen, and the operator presses OK the product move is initiated. Under certain circumstances, a product move is initiated and completed simply by pressing OK.

What the move does in automatic mode for each source template attribute:

- Checks the target template for a matching template attribute.
- If the target template does not contain a like named attribute, Product Information Management will attempt to create a copy in the target.
- If the target template contains a like named attribute, Product Information Management tests the product attribute values for the source attribute against the target attribute's constraints. If there are no violations, the product attribute values will be moved.

If there are any constraint violations, the move is interrupted and the Move Products Exceptions screen is displayed. The Out of Spec Products column shows where there are problems. It identifies the number of products that are out of spec out of the number of products that have values for the attribute.

Fig. 5.20
Product Move Complications



The user can choose to correct exceptions in several ways:

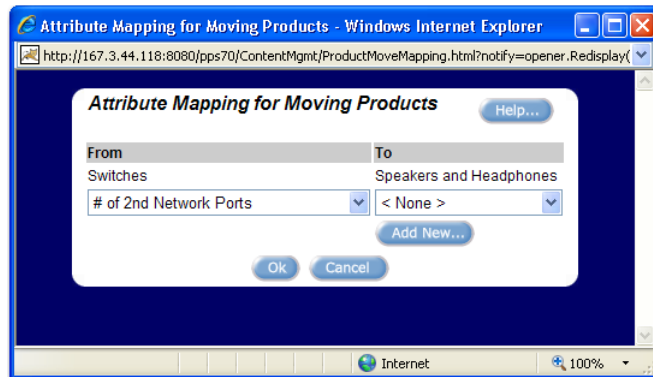
- 1 Modify the target template's source attribute to relax a constraint. Do this by selecting on the target attribute name hyperlink.
- 2 Discard the template attribute from the move. In this case, the offending products will be moved, but their values for this attribute will be changed to null. Do this by choosing the radio button in the action column for the row associated with the out of spec products.
- 3 Change the mapping. If PIM automatically choose a mapping incorrectly, choose Change mapping to redirect the source template attribute to an alternative target attribute.
- 4 Add a mapping. If PIM was unable to map the attribute names, choose Add a mapping in a row to create a mapping. This could be used for example, if the source template attribute was Note and the target template had an attribute Notes.
- 5 Modify the products one at a time. Press the hyperlink for an out of spec product count. A list of products will be displayed, from there you can choose to correct each product individually.
- 6 Modify the products many at a time by choosing Group edit. This initiates the group edit function on the set of products involved in the move. From here, you can alter the values of the products to match the target template's constraints.

Once a change of any kind is made, PIM re-evaluates the products and recalculates the out of spec products.

Move Products Mapping

This screen is used to alter and create mappings of template attributes between source and target templates that are involved in a move. The user arrives at this screen from the Move Products Exceptions screen by choosing to change or add a mapping. This screen is an example of a change mapping request:

Fig. 5.21
Product Move Mapping



When this screen is initially displayed the selections reflect the mapping that will be changed. The left side drop down contains the selection and available, unmapped attributes associated with the source template. The right side drop down contains the current selection and available, unmapped attributes for the target template. If this was an add mapping request, one of the drop down lists will have the select <None> pre-selected.

The user chooses the desired mapping combination and presses OK to return to Move Products Exceptions screen.

Move Products Out of Specification

This screen is used to review out of spec products that are identified during the move of products to a new template.

Once a template has been chosen, and the operator presses OK the product move is initiated. Under certain circumstances, a product move is initiated and completed simply by pressing OK. An example of a simple move like this would be

- The target template has no template attributes prior to the move. In this case, Product Information Management will automatically copy the template attributes from the source template into the target template, matching their definition from the source template.
- The target template has template attributes prior to the move. All of the product's template attribute values are valid with regard to the template attributes constraints.

When there are product attributes that are out of spec with the target template, a pop up screen permits a review of the details of the out of spec products for a specific constrained attribute in the target template.

Multiple Product Company Associations

To create product company associations between a selected set of products and one or more companies, choose the Companies Action on the Products Found window.

- The selected product that will own the relationships is displayed at the top of the screen.
- Chose the product association type from the drop down (in the example below, Trading Partner).
- Using the side-by-side selection boxes, select 1 or more companies to be associated with set of products displayed on the form.
- Optionally, choose a status.
- Press OK to add the associations to the database.

Fig. 5.22
Add Multiple Companies Association

Associate Companies to a set of Products

Company	Part Number	Product Description
3COM	3TE5428	hub
3COM	3C16592B	SS 3 RM hub 10/NIC 12 RJ45
3COM	3C16610US	SS II Dual Speed 500 hub 10/NIC 12 RJ45
3COM	3C16611US	SS II Dual Speed 500 hub 10/NIC 24 RJ45

Association Type: Distributed By

Selected Companies: [] Available Companies: [3COM, ABC, Addonics, AdvanSources, Allied Telesis, Altec Lansing, American Power, AOC, Apricorn, Asante]

Status: []

Ok Cancel

Note Once created, Product Company Associations can be edited on the Product Detail screen's Product Company Associations tab.

Catalogs

This chapter provides information about the Catalogs and the classification of products for viewing in the Product Manager.

Creating a New Catalog **117**

Product Classifications **121**

A catalog is used to organize and classify products for product data viewing and searching. PIM has the ability to define multiple catalogs for the same product data. For example, you can define a catalog called Handyman tools and a Contractor tools catalog that share some of the same products.

When the Catalogs tab is selected, the left panel includes a drop down menu to select a catalog on which you'd like to operate as well as the taxonomy (hierarchical tree structure) for the selected catalog. The right panel displays information about the selected catalog.

Product Information Management ships with a default catalog that is an exact reflection of the Template Hierarchy. The default name of this catalog is Standard. This name is configurable and can be changed at installation time. The Standard catalog can not be altered. This document will not address the Standard catalog, but will focus instead on Custom Catalogs.

Concepts

Catalogs can be thought of as views of the product information that is maintained within the Template Hierarchy. Catalogs can be used to control the product information that user's are permitted to:

- View within Online Viewer.
- Export within Export Manager.
- Change within Product Manager.

There are four characteristics of catalogs that are fundamental for basic understanding:

- Taxonomy.
- Product mix.
- Attributes.
- Security.

Taxonomy

A Catalog's taxonomy can be:

- A reflection of one or more subset(s) of the template hierarchy.
- A completely independent classification hierarchy from the template hierarchy.
- Any combination of the above.

Product Mix

A Catalog's Product Mix can be:

- Inherited from one or more subset(s) of the template hierarchy.
- Inherited from one or more subset(s) of the template hierarchy and explicitly filtered by Company.
- Inherited from one or more subset(s) of the template hierarchy and implicitly filtered by Company (user's contributing content to a catalog are restricted by security to exposing those products they're permitted to maintain).
- Explicitly selected individual products.

- Any combination of the above.

Attributes

A Catalog's Attributes can be:

- All attributes about all products.
- Restricted to the attributes in one or more attribute groups.

Security

A Catalog's usage can be secured:

- To restrict update of the catalog and it's contents by one, more or all roles.
- To restrict viewing and exporting by one, more or all roles.

What Can Be Done With Catalogs

Catalogs can be used to grant access to product data to less privileged users and to safeguard more privileged users from making unwanted changes.

- Catalogs of product data can be targeted to specific sets of consumers of product data. Security controls who sees which catalogs in:
 - Product Manager - control who can change what.
 - Product Viewer - control who can see what.
 - Export Manager - control who can export what.
- Catalogs permit distributed, secure content creation by various contributing parties inside and outside of the enterprise:
 - Create views of the same product mix, but different attributes to permit distributed content contribution.
- Catalogs are used as a tool to control the scope of edits by more privileged users:
 - As a privileged user who can create catalogs, catalogs can be used to create units of work- a mix of products and attributes that need work. This can be used to drive a work process and to limit the scope of updates by privileged users.

Catalogs can be used to export to target systems and can be created to synchronize changes of product data of interest for target systems.

Creating a New Catalog

From the Product Manager, select the Catalogs tab. The Catalogs window displays two panels, a hierarchy on the left and an information panel on the right. Select Create New Catalog from the left panel.

Fig. 6.1
Add New Catalog

The screenshot shows the 'Add New Catalog' form in a Windows Internet Explorer window. The form has the following sections:

- Name:** A text input field.
- Description:** A text area.
- Maximum depth:** A dropdown menu set to 'No limit'.
- Checkboxes:**
 - ☐ Hierarchy in the catalog must be balanced
 - ☐ Allow products to be classified more than once
 - ☐ Allow Product Classes to have more than one parent
 - ☐ Only show attributes from these attribute groups
- Other attribute groups:** A list box containing 'APC', 'ComputerAttributeGroup', 'ExportAttributeGroup', and 'Hard Disk Required'. Navigation buttons '<<' and '>>' are present.
- Add New...** A button below the attribute groups.
- Security:**
 - Roles that can *change* this catalog:** A list box with roles: AAUserRole, Activities, CatalogMaintainer, CompanyMaintainer, ExportMaintainer. Navigation buttons '<<' and '>>' are present.
 - Roles that can only *view* this catalog:** A list box with the same roles as above.
 - Users who will be able to *change*:** A list box.
 - Users who will only be able to *view*:** A list box.
- Use roles to constrain product visibility:** A checkbox at the bottom.
- Buttons:** 'Ok' and 'Cancel' at the bottom.

Name. This name must be unique among all catalogs in the product database.

Description. Enter a brief description of the catalog.

Maximum depth. Type the number of maximum levels for the catalog in the Maximum depth field. This is an optional parameter specifying the maximum number of levels allowed in the catalog hierarchy. If your company has standardized your catalog structure to limit the depth to a certain amount, then this field can be used to prevent users from extending the catalog hierarchy beyond that limit.

Note Must not be set in order to Automatically Classify Products.

Hierarchy in the catalog must be balanced. If applicable, select this check box. A balanced catalog is one in which products can only be classified in product class 'nodes' equidistant from the root of the catalog hierarchy.

Note Must not be set in order to Automatically Classify Products.

Allow products to be classified more than once. In some catalogs, it is desirable to have the same products appear in more than one place. For example, a D-size battery product may be classified under Disposable Batteries and it might be classified under Stocking stuffers.

Note Must be set in order to Automatically Classify Products.

Allow Product Classes to have more than one parent. In some catalogs, it is desirable to allow the Product Classes themselves to appear in more than one place. For example, 'Hammers' may be classified under 'Carpenter tools' as well as 'Hand tools'. Note: must be set in order to link a product class under another product class. See Linking a Product Class (under another product class).

Only show attributes from these attribute groups. To limit the attributes that will be available for viewing, editing and exporting of the catalog, choose the checkbox to show only attributes from these attribute groups and select the attribute groups and press << to add the attribute groups to the catalog. See Attribute Group Information on setting up attribute groups.

Roles that can change this catalog. If you want to allow certain roles/users to change the catalog, select available roles from the Available list box, and then select the << button. User's with one or more of the roles will be able to select the catalog for maintenance within the Product Manager. Users who currently have the selected roles display at the bottom of the screen.

Roles that can only view this catalog. If you want to allow certain roles/users to view the catalog, select available roles from the Available list box, and then select the << button. User's with one or more of the roles will be able to select the catalog for viewing and exporting within the Online Viewer and Export Manager. Users who currently have the selected roles display at the bottom of the screen.

Users who will be able to change. If you need to remove a role for change, select the role from the Roles list box, and then select the << button. The role you selected is removed.

Users who will only be able to view. If you need to remove a role for view, select the role from the Roles list box, and then select the << button. The role you selected is removed.

Use roles to constrain product visibility. When this option is used, the user has the option of selecting an additional set of roles. With regard to this feature, what's critical about these roles is which Companies they have explicitly associated with them (the all companies privileges do not apply). The intersection of this list of roles and the roles that a user has determines which company's products a particular user sees in this specific catalog. By using this feature, a common catalog can be created with many companies products in it, yet specific users will see only a subset of companies. This applies even if the user can see and change all companies in other catalogs that are not secured in this manner.

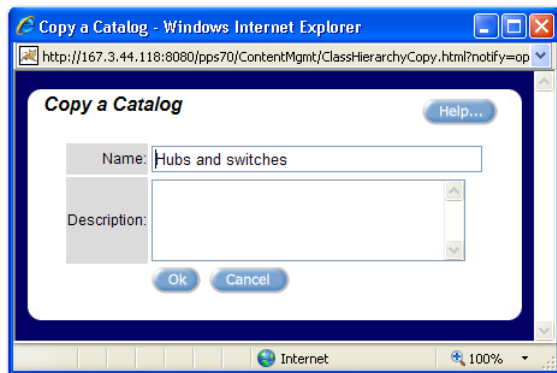
When you are finished, select OK. The new catalog has been entered.

Copy Catalog

An alternative for creating a catalog is by copying an existing catalog. To copy an existing catalog, use the following steps:

- 1 From the Product Manager, select the Catalogs tab.
- 2 Select the catalog that you want to copy. The Catalog you selected displays in the right panel.
- 3 Press the Copy button. The copy catalog popup displays:

Fig. 6.2
Class Hierarchy Copy



- 4 Enter a new name and a brief description for the copied catalog. The name must be unique among all the catalogs in the product database.
- 5 Press the OK button. The source catalog will be copied and you'll return to the Editing Catalog Information screen where you can make changes to the copied catalog.

Editing Catalog Information

You can edit the name, description, number of levels within a certain catalog and security associated with a catalog. To edit catalog information, use the following steps:

- 1 From the Product Manager, select the Catalogs tab.
- 2 Select the catalog that you want to edit. The Catalog you selected displays in the right panel.
- 3 See Creating a New Catalog above for details on catalog's definition.
- 4 When you are finished making edits, select Apply Changes.

Deleting a Catalog

When you delete a catalog, the product classifications and base definition of the catalog are deleted. The products that are referenced by the catalog are not deleted so they can be used in other catalogs.

To delete a catalog, use the following steps:

- 1 From the Product Manager, select the Catalogs tab.
- 2 Select the catalog that you want to delete from the catalog drop-down list in the left panel. PIM displays the catalog you selected in the right panel.
- 3 Select Delete in the lower right panel. PIM displays this message, Are you sure you want to delete the Catalog?.
- 4 Select OK. The Catalog you selected is deleted.

Product Classifications

Product classes are used within a catalog to create a hierarchy of products. A product class contains products or other product classes. Consider the following example:

```
Home Repair Catalog <- Catalog
Electrical Supplies <- Product Class
Copper Wire <- Product Class
Wire-12 AWG <- Product
Wire-10 AWG <- Product
```

'Electrical Supplies' is a product class within the 'Home Repair Catalog' catalog that contains another product class called 'Copper Wire', which contains two products.

Note A product class can contain other product classes or products, but not both. If the catalog specifies a maximum depth, then you can not add additional product classes beyond that specified depth.

Creating a New Product Class

To create a new product class for a catalog, use the following steps:

- 1 From the Product Manager, select the Catalogs tab.
- 2 Select the catalog to which you want to create new product classes, or continue to drill down to the product class to which you want to create a new product class. The Catalog you selected displays.
- 3 Select Create New Product Class in the left panel.

Fig. 6.3
Create New Product Class

The screenshot shows a web browser window titled "Create New Product Class - Windows Internet Explorer". The address bar shows a URL starting with "http://167.3.44.118:8080/pps70/ContentMgmt/ProductClassAdd.html?". The main content area is titled "Create New Product Class" and contains several input fields and buttons. The "To be located in:" field is set to "Hubs and switches". The "Name:" field is empty. The "Description:" field is a large text area. The "Code:" field is empty. The "Image: (GIF or JPEG)" field has a "Browse..." button. The "Additional Descriptors:" field has an "Add New..." button. The "Automatic Product Classification:" field has "Add New...", "Remove", and "Copy from Template..." buttons. Below these fields is a section titled "Only Show Products from these Companies" with a list of companies: 3COM, ABC, Addonics, Allied Telesis, and Altec Lansing. There are "<<" and ">>" buttons next to the list. At the bottom of the form are "Ok" and "Cancel" buttons. The browser's status bar at the bottom shows "Internet" and "100%" zoom.

Fields

Name. This name must be unique within the other Product Classes.

Description. Enter a description of the product class.

Code. Enter a code for the product class (for example UN/SPSC) in the Code field.

Image. To add an image, select Browse, next to the New icon field. The Choose file pop-up window displays. Select an image file from the Look in drop-down list, and then select Open. The image file displays in the New icon field.

Additional Descriptors. Descriptors are basic elements that permit the association of an unlimited number of name/value pairs with a node in a hierarchy. Descriptors must be uniquely named for the node of the hierarchy at which they're defined. For more information see “Template and Classification Descriptors” on page 75.

Automatic Product Classification. When creating an automatic classification, you can choose to either 1) reference a subset of the template hierarchy; or 2) reference multiple template leaf nodes - essentially collapsing different templates into a single node for presentation in a catalog.

- To create an automatic classifications, select Add new to the right of the display area for classified templates).

Note If the first automatic classification points to a template group, you will not be permitted to create a second classification - this feature is currently available only when referencing leaf templates.

- To remove an existing automatic classification, highlight the template's path in the list and select Remove to the right of the display area for classified templates).
- To copy the descriptive data from a template to the classification node, highlight the template's path in the list and select Copy from Template - the template's descriptive information will replace the classification node (this includes description, code, descriptors and image).

Only Show Products from these Companies. Use the left or right arrows to move companies. By default, when automatically classifying products, PIM will bring all products into the classification node. You have the option of filtering the products by their companies. To do so, choose the companies you'd like to include from the list of companies, and select the << button.

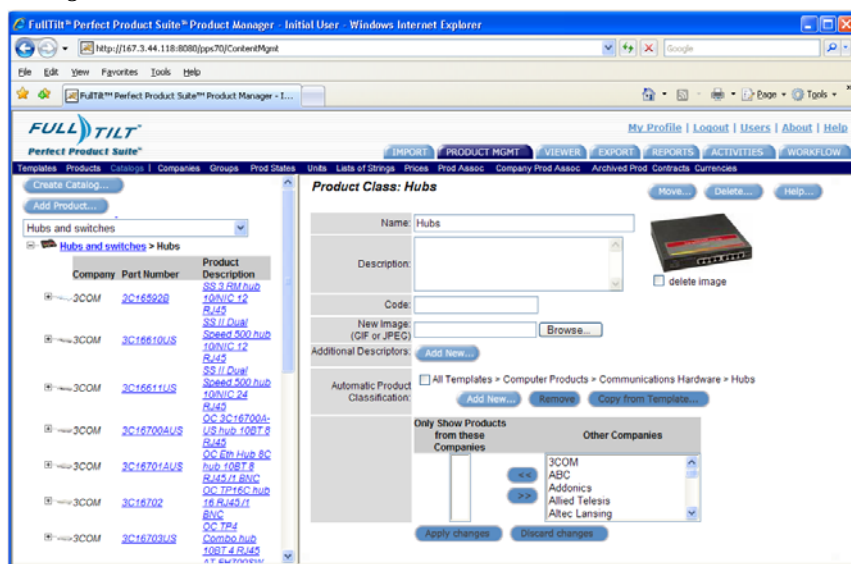
Note For Automatic classifications, the descriptive data for the classification to which the templates are mapped can be changed. For inherited template groups and templates below which the connection to the template hierarchy is mapped, modifications of descriptors, images and description are prohibited. Their values are inherited from the Template hierarchy.

When finished select OK. The product class is added.

Editing a Product Class

To edit a product class, from the Product Manager, select the Catalogs tab. Select the catalog to which you want to make edits. Continue to drill down to the product class to which you want to make edits. The product class you selected displays on the right side of the screen. All fields are explained above in “Creating a New Product Class”.

Fig. 6.4
Editing a Product Class



Deleting a Product Class

When you press the 'Delete' button from the Product Class window, PIM checks to see if there are any products or product classes underneath the product class to be deleted. The following list describes five possible outcomes when you delete a product class:

- If you don't have products or products classes underneath, you can delete the product class (it doesn't matter if the catalog is balanced or if the product class to be deleted is under the root of the catalog).
- If there are no products underneath, but there are product classes underneath, the product classes have to be moved under the parent. before the product class can be deleted, (it does not matter if the catalog is balanced or if the product class to be deleted is under the root of the catalog).
- If you have products underneath, but don't have product classes underneath you need to unclassify the products, and then delete the product class (The catalog should be balanced, but it does not matter if the product class to be deleted is under the root of the catalog).
- If there are products underneath, but do not have product classes underneath (and the catalog is not balanced and you do not have the product class to be deleted under the root of the catalog), then you can either, unclassify the products, or move them, and then delete the product class.
- If you have products underneath, but do not have product classes underneath (and the catalog is not balanced and the product class to be deleted is under the root of the catalog), then you can unclassify the products and then delete the product class.

To delete a product class, use the following steps:

- 1 From the Product Manager, select the Catalogs tab.
- 2 Select the catalog that contains the product class you want to delete. The Catalog you selected displays.
- 3 Drill down to the product class you want to delete. The product class you selected displays.

- 4 Select Delete. The Delete Product Class window displays information about what template group will be deleted and where the product classes will be moved.
- 5 Select OK.

Moving a Product Class

PIM allows you to move a product class to a different location in the same catalog, or into a different catalog.

- 1 From the Product Manager select the Catalogs tab.
- 2 Select the catalog that contains the product class you want to move.
- 3 Drill down to the product class you want to move.
- 4 Select Move. The Move Product window displays.
- 5 If applicable, select the catalog to which you want to move the product class. The catalog you selected displays.
- 6 From the catalog, drill down to the product class to which you want to move the product class, and then select OK. The product class has been moved to the new location.

Note Cancel Closes the window without moving the product class.

Assigning Products to Product Classes

The following rules apply when you classify products in the Product Information Management system:

- A product can only be classified in a product class that does not contain any product classes (because a product class can contain, either product classes, or products but not both).
- A product can be classified in multiple catalogs.
- A product can only be classified in one product class within the same catalog, unless the catalog allows products to be classified more than once.
- If the catalog requires the hierarchy to be 'balanced', then product classes containing products must be equidistant from the root of the catalog hierarchy.

A product uses a template to define what information should be provided for that product when it is added or updated in the product database. Consider the following example:

Home Repair Catalog	Catalog
Electrical Supplies	Product Class
Copper Wire	Product Class
Wire-12 AWG	Product
Wire-10 AWG	Product

'Electrical Supplies' is a product class within the 'Home Repair Catalog' that contains another product class called 'Copper Wire', which contains two products.

To classify products to product classes, use the following steps:

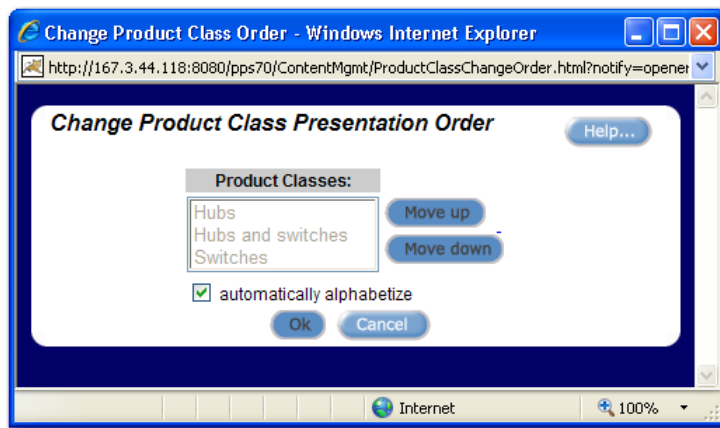
- 1 Select the catalog to which you would like to classify the product. If you need to create a new catalog, click: Create Catalog.
- 2 Drill down to the product level. PIM displays the product(s) and the Classify Products and Unclassify Products buttons display in the left panel.
- 3 Drill down to the product class to which you want to classify products.
- 4 Click the Classify Products button.
- 5 Navigate, using the hierarchy, to the products you want to classify to the selected product class.
- 6 Click the Select All button to select all the products, or select only those products you want to classify.
- 7 Click the OK button to classify the product(s). The products you selected are classified under the original product you selected.

Product Class Presentation Order

To change the presentation order of classes in the Catalogs tab of the Product Manager, select the Change Order button. This display can be used to control the ordering of templates for display purposes. The default ordering is alphabetized. The template order is inherited when template groups are auto classified into catalogs.

To change from the alphabetize default, un-check the automatically alphabetize checkbox.

Fig. 6.5
Product Class Order 1



Once this is selected, select the Classification name that is to be re-ordered. Then, using the up and down arrows, reposition the selected Name to it's new location.

Product completion states are used to control the products that can be viewed in the Online Viewer.

Template and Classification Descriptors

Descriptors can be defined for any level of the template or a classification hierarchy. To access, this screen, navigate to a template or classification node and choose Add Descriptor to create a new value or select the hyperlink associated with the name of an existing Descriptor to change its current value or to delete the Descriptor.

Descriptors are basic elements that permit the association of an unlimited number of name/value pairs with a node in a hierarchy. Descriptors must be uniquely named for the node of the hierarchy at which they're defined.

Provide or change the descriptor's unique name and value and press OK to add or change a value.

Fig. 6.6
Descriptor

Template descriptors are inherited by classification nodes when the Auto classification feature is used when building catalog content.

New lines (carriage return, line feeds) are supported and honored within template descriptors. However, Product Information Management's hierarchical display lists of descriptors remove the new line characters for display purposes. When viewed on this form and when appearing in custom exports the descriptors will contain the new line.

Linking a Product Class Under Another Product Class

PIM allows you to link a given product class under another product class. Some catalogs may contain multiple parent template groups that contain the same product. For example: the product class Hammers may appear under Construction Tools and Carpenter Tools. You can link a product class under another product class, rather than have to create two different classes. The products in the database can be classified in zero or more product classes.

Consider the following example:

```
Home Repair Catalog <- Catalog
```

```
Electrical Supplies <- Product Class
Copper Wire <- Product Class
Wire-12 AWG <- Product
Wire-10 AWG <- Product
```

If you wanted to place the same Copper Wire products under a new Wire and Cable product class, create a new Product Class for Wire and Cable, and then link the Copper Wire class under Wire and Cable. From then on, Copper Wire products appears under Wire and Cable, without having to do additional maintenance of the product catalog.

Note This option is not provided if the catalog does not allow multiple Product Classes to have more than one parent.

To link a product class under another product class, use the following steps:

- 1 From the Product Manager tab select the Catalogs tab.
- 2 Select the catalog that contains the product class.
- 3 Drill down to the product class that you want to link.
- 4 Select Link. The Link Under Another Product Class window displays.
- 5 Navigate (using the hierarchy) to the product class.
- 6 Select OK to link the product class. The product class is linked under the other product class.

Note Product classes can only be linked to a parent node at the same level as the current/existing parent node. For example, if a product class is 5 levels deep in the catalog, then it can only be linked to parents that are 4 levels deep.

Unlinking a Product Class

You can unlink (or remove) a given product class from under another product class. The Unlink button only is available after you link a product class to another product class. When you select the Unlink button, a window displays all the product classes to which the current product class is linked. If you remove all the product classes to which the product class is linked, the current product class displays in the catalog only once (in its original location).

To unlink a product class, use the following steps:

- 1 From the Product Manager tab select the Catalogs tab.
- 2 From the All Templates folder, drill down to the product class you want to unlink.
- 3 Select Unlink. The Unlink Product Class window displays.
- 4 Remove the check from the check box to unlink the product class.
- 5 Select OK. The product class is unlinked.

Automatically Classify Products

PIM allows you to establish a link between a template or template group and a product class such that products under the template or template group are automatically classified under the product class. Once the link is established, new products added under that template or template group automatically appear in the catalog under the product class.

Note If you have a role containing the View All Products privilege, then all products under the template or template group will be automatically classified. Otherwise, only products from your company will be automatically classified.

Note This feature is only available if:

- 1 The Catalog containing the Product Class:
 - is not required to be balanced.
 - does not have a maximum depth specified.
 - allows products to be classified multiple times within the catalog.
- 2 The Product Class:
 - does not already contain any products.
 - does not already contain another other product classes.

If you link a template group to a product class, the hierarchy under that template group will appear under the product class. Consider the following example:

Note This option is not provided if the catalog is:

- Balanced.
- Has a maximum depth level specified.

To automatically classify products, use the following steps:

- 1 From the Product Manager tab select the Catalogs tab.
- 2 Select the catalog that contains the product class.
- 3 Drill down to the product class where you want the products to be automatically classified.
- 4 Select Add New. The Automatically Classify Products window displays.
- 5 Navigate (using the hierarchy) to the template or template group.
- 6 Select OK. The Automatically Classify Products window will close and the Product Class screen will be updated to show the Template -> Product Class linkage.
- 7 Save the Product Class.

Removing a Product from a Class

To unclassify a product, use the following steps:

- 1 From the Product Manager, select the Catalogs tab.
- 2 Chose a custom catalog from the list of catalogs.

- 3 Drill down to the product class that contains the product that you want to unclassify.
- 4 Click the product (blue link) that you want to unclassify, from the Product Description column in the left panel.
- 5 The product and its details display in the right panel.
- 6 Click the Unclassify button.
- 7 The Unclassify Products from window displays.
- 8 Check the locations from which the product should be unclassified.
- 9 Click the OK button.
- 10 The classifications you checked were removed.

Assigning Products to another catalog

The following rules apply when you classify products in PIM:

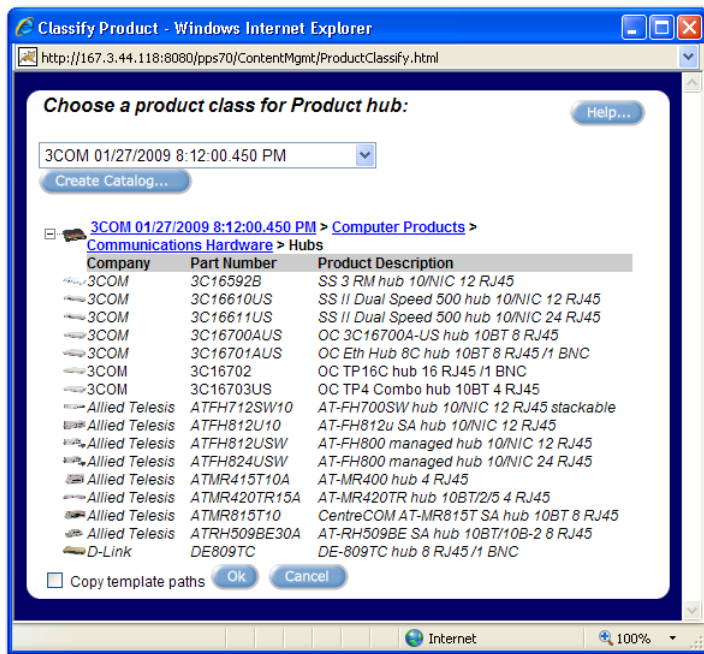
- A product can only be classified in a product class that does not contain any product classes (because a product class can contain either product classes or products but not both).
- A product can be classified in multiple catalogs.
- A product can only be classified in one product class within the same catalog unless the catalog allows products to be classified more than once.
- If the catalog requires the hierarchy to be 'balanced', then product classes containing products must be at the same level in the catalog hierarchy.

To assign a class to a product another catalog use the following steps:

- 1 From Templates, or Catalogs tabs within the Product manager, drill down to the desired product.
- 2 From the Actions drop down, select Classify.

Note This can also be done for individual or multiple products from the Products Found screen using the Actions drop down.

Fig. 6.7
Classify Products



- 3 Chose a catalog from the list (or create a catalog).
- 4 Navigate to the appropriate classification node within the catalog (or create a new classification).
- 5 Chose to copy template paths or not:
 - a If this is un-selected, the products will be classified into the classification node that is selected.
 - b If this is selected, the template hierarchy structure for the templates where the selected products are stored will be replicated beneath the selected node.
- 6 Select OK.

Note The resulting structure and classifications is a static copy and does not change if the template structure is altered.

Definitions

This chapter provides information about the Catalogs and the classification of products for viewing in the Product Manager.

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Company

Product Information Management allows you to add new company names and relevant information about the company. You can also edit or delete an existing company. The companies tab lists all companies in the left panel. The right panel includes details about the selected company.

Fig. 7.1
Product Management Company Tab

The screenshot displays the 'Company' tab in the QAD PIM software. On the left, a list of companies is shown, with '3COM' selected. The right panel provides a detailed form for the selected company. The form includes the following fields and sections:

- Company: 3COM** (Header)
- Name:** 3COM
- GLN:** (Empty field)
- Street:** (Empty field)
- City:** (Empty field)
- State:** (Empty field)
- Postal code:** (Empty field)
- Country:** (Empty field)
- Notes:** (Text area)
- Parent Company:** << none >> (Dropdown menu)
- Member companies:** (Empty field with 'Change...' button)
- Subsidaries:** (Empty field with 'Change...' button)
- Company is a customer of:** (Empty field with 'Change...' button)
- Customers:** (Empty field with 'Change...' button)
- Company Locations:** (Empty field with 'Change...' button)
- Associated Products:**

Product Company	Product Part Number	Association Part Status	Association Part Number
3COM	AttributeTestPart2		
- Security:** Roles that can **change** (Dropdown menu)

Adding a Company

PIM allows you to add a new company, manufacturer, or vendor. The company name and information is unique within the list of companies in the product catalog database.

To add a new company information, use the following steps:

- 1 Select the Company tab from the Product Manager tab. The Company window displays the Add New Company button and the All Company folder.
- 2 Select Add New Company. The Add New Company window displays.
- 3 Type the company name in the Name field.
- 4 Fill in the company street address in the Street field.

- 5 In the City field, type the company's city location.
- 6 Type the company's state in the State field.
- 7 Fill in the zip code of the company in the Postal code field.
- 8 Enter the two-character county code for the company in the Country field.
- 9 Type pertinent notes about the company in the Notes field.
- 10 Define company relationships:
 - a Chose parent company from the parent company drop down list.
 - b Chose a company subdivision from the company subdivision drop down list.
 - c Press the Change button to alter any of the subsidiary, subdivision, customer and location relationships.
- 11 Select OK. The company is added.

Editing Company Information

PIM allows you to edit company, manufacturer or vendor information. To edit company information, use the following steps:

- 1 Select the Company tab from the Product Manager tab. The Company window displays the Add New Company button and the All Company folder.
- 2 From the All Companies folder, select the company that you want to edit.
- 3 Fill in all necessary fields, (see “Adding a Company” on page 132).
- 4 Select Apply Changes.

Deleting a Company

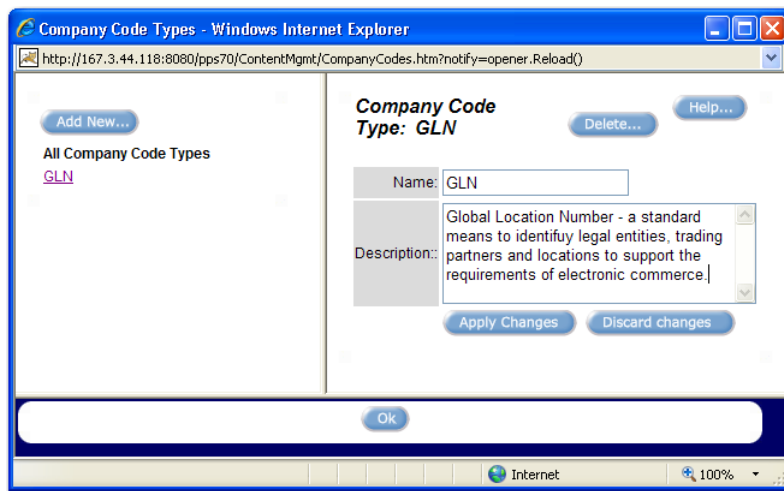
Product Information Management allows you to delete a company from PIM. To delete a company name and its identifying information, use the following steps:

- 1 Select the Company tab from the Product Manager tab. The Company window displays the Add New Company button and the All Company folder.
- 2 From the All Companies folder, select the company (blue link) that you want to delete.
- 3 Select Delete. The Delete Company window displays this message, Is it safe to delete the company?.
- 4 Select OK. The company name and information is deleted.

Company Code Types

Within PIM you can maintain a master list of Company Code Types. From the Companies tab within the Product Manager, select the Code Types button on the left side of the screen. The Company Code Type screen permits the creation of company codes, changing existing codes and deleting unwanted codes. Select an existing code type on the left pane to modify a code. You can also add a new code, or delete an existing code by pressing the corresponding buttons.

Fig. 7.2
Company Code Change



Attribute Groups

Attribute groups control which product description and product attributes are exposed in a catalog in Product Manager, Product Viewer and Exports that are initiated via Export Manager. Global and template attributes can be associated with any number of attribute groups in which they should appear. In addition, zero, one or more attribute groups can be associated with a catalog.

Examples of application of attribute groups: attribute groups can be used to exclude internal attributes from a customer oriented view (for example, cost or margin). Or, then can be used to target specific attributes to specific audiences (for example, fit, form and function). And, attribute groups can be used to create locale specific catalogs in a language that is appropriate for the target audience. And, since they can be used in combination with one another, they can be used to build up content based upon combinations of usages.

From here you can create and maintain the master list of attribute groups. Once created, the next step is to associate the attributes with the attribute group from the templates tab within Product Management.

To change or delete an existing attribute group, press the attribute group name in the left pane. The selected attribute group appears in the right pane.

Fig. 7.3
Attribute Group 2

The screenshot shows the 'FULL TILT Perfect Product Suite' interface. The top navigation bar includes links like 'My Profile', 'Logout', 'Users', 'About', and 'Help'. Below this is a menu bar with options like 'IMPORT', 'PRODUCT MGMT', 'VIEWER', 'EXPORT', 'REPORTS', 'ACTIVITIES', and 'WORKFLOW'. The main content area is titled 'Attribute Group: ComputerAttributeGroup'. On the left, there's a sidebar with 'All Attribute Groups' and a list of groups: 'APC', 'ComputerAttributeGroup', 'ExportAttributeGroup', and 'Hard Disk Required'. The main form has a 'Name' field with 'ComputerAttributeGroup', a 'Description' field, and three checkboxes: 'Interchange', 'Export Filter', and 'Notify When Changed'. Below these is an 'Additional Descriptors' section with an 'Add New...' button. The 'Roles that can change attributes in this attribute group' section shows a list of roles: 'AATestRole', 'Activities', 'CatalogMaintainer', 'CompanyMaintainer', and 'ExportMaintainer'. At the bottom, there are 'Apply Changes' and 'Discard changes' buttons.

Change the values of an existing attribute group and press Apply Changes to record the change in the database. Or, press Cancel to remove the entry.

Notes on options:

- Interchange causes the Find Similar products feature to locate similar products in a direct manner. This occurs if at least one attribute group has been created and associated with the template attributes for the product that is the object of the search. Refer to Similar Products Find for more information on Find Similar capability.
- Export Filter attributes in groups with this option are available for filtering in the Export Manager.
- Notify When Changed when attributes in groups with this option are changed an event is published. This mechanism coupled with the notification capability can be used to alert users when information of interest is changing.

Add Attribute Group

To add a new attribute group, in the Groups tab within the Product Manager, select the Add New button in the left of the screen.

The screen permits the creation of a new attribute group.

- 1 Provide the unique name and, optionally a description.
- 2 For information on Additional Descriptors see “Template and Classification Descriptors” on page 126.
- 3 For information on Security see “Role Based Security Model” on page 13.
- 4 Press OK to save the attribute group to the database.

Fig. 7.4
Add Attribute Group

Product Completion State

Product Completion States are used to manage the life-cycle of products. This screen can be used to modify the default product completion states, control their sequencing, define the level of security required to place products in a state and to control if products of a given state can be viewed in Product Viewer

To change or delete an existing attribute group, press product completion state name in the left pane. The selected product completion state appears in the right pane.

Fig. 7.5
Product State Change

- 1 Enter a name for the completion state, and, optionally, a brief description.
- 2 To tightly control the users that can change products to the state, select the Products with this state are Production checkbox.

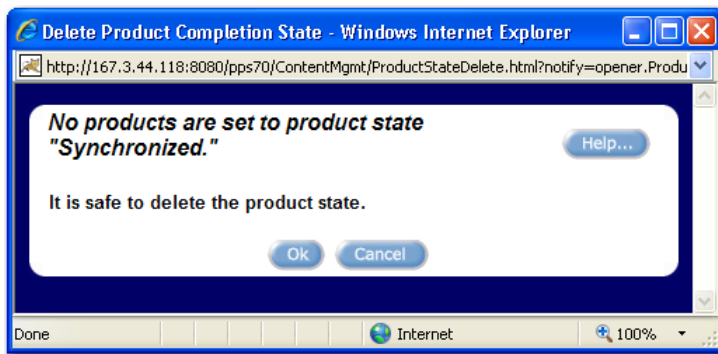
- 3 Product completion states are used to control the products that can be viewed in the Product Viewer. To expose products of the state in the Product Viewer select the checkbox.
- 4 Press Apply changes to record the change in the database. Or, press Discard changes to remove the entry.
- 5 To add a new product completion state select Add New button and follow the previous steps.

Delete Product Completion State

This screen is initiated by selecting a product completion state and pressing Delete on the Product Completion State Info screen within Product Management. At this point, you'll have the opportunity to confirm the delete of a selected product completion state.

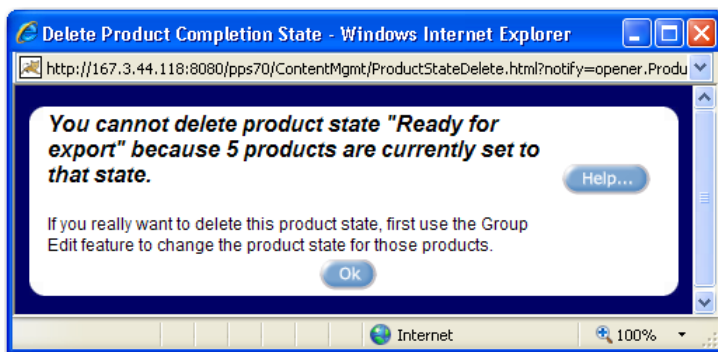
If the selected state is unused, it can be deleted by pressing OK on the form below:

Fig. 7.6
Product State Delete



If the selected type is in use an error screen like the one below will appear. To determine the products in a state and operate on them, initiate a search from the Products tab in Product Management.:

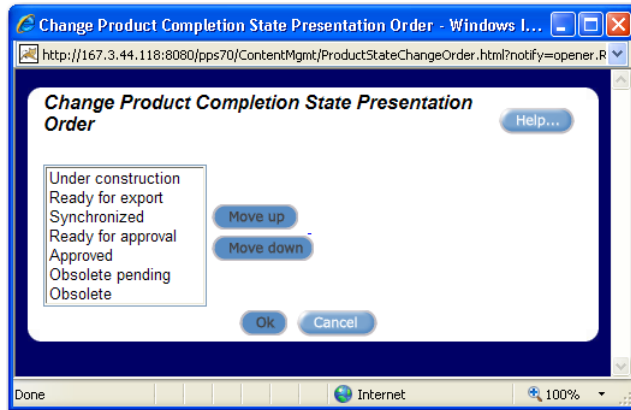
Fig. 7.7
Product State Delete 2



Product Completion State Ordering

To change the presentation order of the product completions states, from the Product States tab within the Product Manager, select the Change Order button in the left side of the screen. To move a state up or down, select the target product completion state and use the arrows to the right of the list of states to move the selection up or down in the list.

Fig. 7.8
Product State Order



Units

When you select Units from Product Manager, you can add/edit unit types or units. A unit type defines a set of units that can be used interchangeably when specifying a numeric attribute value. For example, length is a unit type and Consider. There are many different units that can be used to specify Length: inches, centimeters, miles, for example. And there are standard conversion factors between all the units within a given unit type.

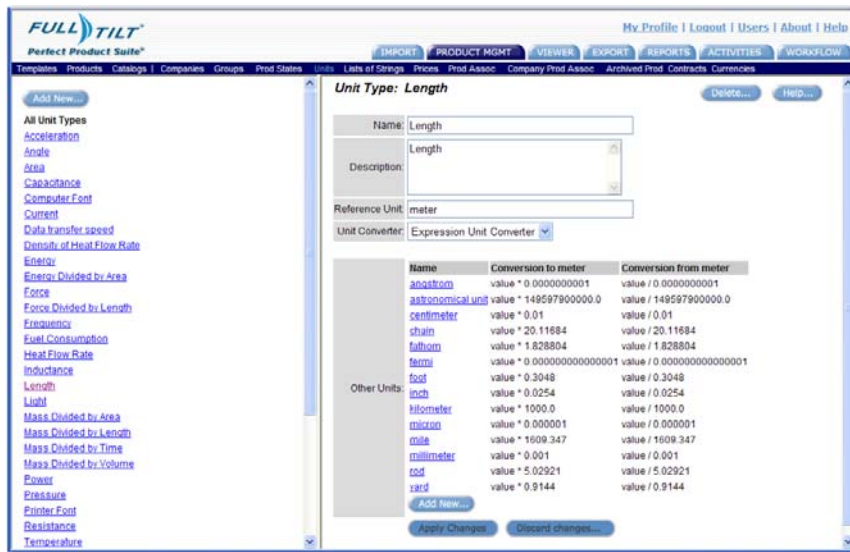
Adding and Editing a Unit Type

To add/edit a Unit Type:

Note If you are in an Attribute window, you can proceed to step 3.

- 1 From the Product Manager Tab, select the Units tab.
- 2 Select the Add New button. If you want to edit an existing Unit Type, select the Unit Type.

Fig. 7.9
Adding or Editing a Unit



- 3 Enter the new unit type name. This name must be unique among all the unit types.
- 4 Enter a description.
- 5 Fill in the reference unit of the new unit type. The reference unit is the unit within the unit type that has been chosen to be the common conversion point between units in the same unit type. For instance, meter might be the reference unit for the unit type: length.
- 6 Select the unit convertor.
- 7 Select the Add New button to add other units. See “Adding and Editing a Unit” on page 139 for more information.
- 8 Select OK.

Adding and Editing a Unit

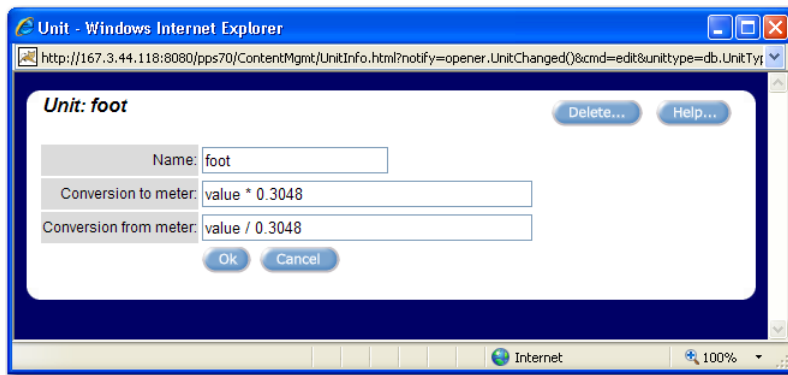
A unit provides a frame of reference for a numeric attribute. The reference unit is the unit within the unit type that has been chosen to be the common conversion point between units in the same unit type. For instance, meter might be the reference unit for the unit type: length. For example the numeric attribute, length will need the value of 100 specified. The unit needs to be specified so that PIM knows if the value is 100 inches, centimeters, or miles. When PIM needs to convert between units, it converts the input unit value into the equivalent value in terms of the reference unit, and then converts it to the output unit value.

To add or edit a unit:

- 1 From the Product Manager tab, select the Units tab.
- 2 To add a new unit, select Add New. To edit a unit, select the Unit Type from the All Unit Types list. The Unit Type window displays.

Note In order to add a unit, you need to access the Unit Type window first. Then, in the Unit Type window you need to enter a reference unit in the Reference unit field before adding a new conversion name.

Fig. 7.10
Adding or Editing a Unit



- 3 Enter a new unit name.
- 4 Enter the conversion to information. This is the equation expression that converts a numeric value in the given unit to the reference unit for this Unit Type. In the expression, the input unit value must be called value. For example: value * 100. This expression would take the input unit value and multiply it by 100 to convert it to the correct reference unit value.
- 5 Enter the conversion from information. This is the equation expression that converts a numeric value from its reference unit value into the correct value for the current Unit. In the expression, the input reference unit value must be called value. For example this expression: value / 100 would take the input reference unit value and divide it by 100 to convert it to the given unit value.
- 6 Select OK.

Deleting a Unit

Before you delete a unit, PIM checks to see if there are any template attributes using that unit or unit type. If template attributes are using that unit or unit type, PIM displays the list of templates and the associated template attributes that use that unit or unit type. You need to go to each of those templates and change to a different unit or unit type before you can delete the unit or unit type. If no template attributes are using that unit or unit type, PIM indicates that it is safe to delete the unit or unit type.

To delete a unit, use the following steps:

- 1 From the Product Manager select the Units tab. The Unit window displays.
- 2 Select the unit you want to delete. The Unit Type window displays.
- 3 Select Delete from the right panel. The Delete Unit or Unit Type window, displays a message that either you must change the template attributes to use a different standard unit before the unit, or displays a message that the unit type is safe to be deleted.

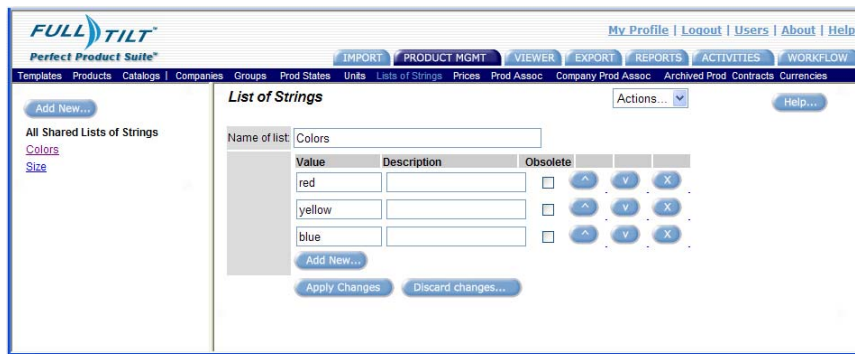
List of Strings

List of strings can be defined individually for a template attribute, or, globally to be applied to one or more global or template level attributes to constrain the values. The List of strings sub tab on the Product Manager's main tab is used to define a globally available list of strings and their valid values.

Global lists of strings would be used to constrain values that are usually the same, for example, colors. If the valid list of strings need to vary based upon the specific type of product a local list of strings should be defined, see “Modify Attributes” on page 78 for more information.

To create a List of Strings type press Add new. To change or delete an existing List of Strings, press the List of Strings name in the left pane. The selected List of Strings appears in the right pane.

Fig. 7.11
List of Strings



- 1 Change the values of an existing List of Strings and press Apply changes to record the change in the database.
- 2 To re-order the valid values use the up (^) and down (V) arrows to the right of the value.
- 3 To delete an unused value, press the X to the right of the value.
- 4 If a description is provided, it is shown on selection lists to aid in selection, but is not considered part of the product information (for example it is not exported, searchable).

These lists can be maintained by external systems using the template loader utility to provide the lists and values. Optionally, when this is done, an individual list of strings can be marked managed externally. When this is done, the list can be viewed at the user interface but not modified.

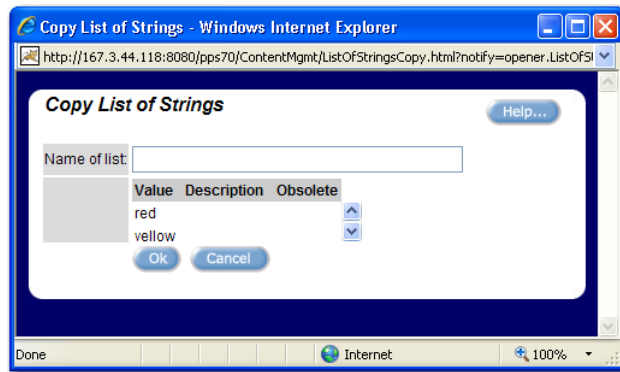
The obsolete flag is intended to be used for externally managed lists. This flag can be used to mark old values and keep track of them while existing products that use the values are modified to use a different value. Until the existing products are modified the obsolete value cannot be removed. Obsolete values can continue to be selected at the user interface (primarily to permit searching and export filtering). However, a user can choose an obsolete value to be applied to a product.

Copy List of Strings

List of strings can be copied to seed a new list.

From the product manager, select list of strings, pick a list of strings to copy and choose the copy action from the drop down list:

Fig. 7.12
Copy List of Strings



Delete List of Strings

List of strings can be deleted - provided they're not in use.

From the product manager, select the list of strings sub-tab, pick a list of strings to delete and choose the delete action from the drop down list. If the list is in use, you'll be presented with a list of templates and attributes using the list.

If there is no usage, you'll receive a confirmation pop-up screen.

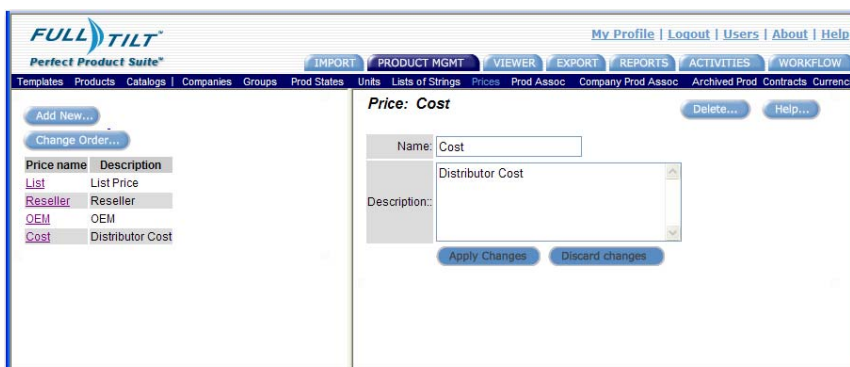
Price Definition

Price definitions define the set of prices that will be available to capture pricing data for products. These are similar to Global Attributes in that they're available globally to capture prices for all products.

Once a price definition is created, the next step is to import pricing data or to edit product pricing data for individual products at the user interface.

To create a price press Add New. To change or delete an existing price, press the price name in the left pane. The selected price definition appears in the right pane.

Fig. 7.13
Price Definition



Change the values and press Apply Changes. Or, press Cancel to remove the entry.

Product Associations

Product Associations are used to relate individual products to one another. There are two types of Product Associations:

- **Hierarchical** - This association is used to create relationships between one parent product and multiple child products (for example, kits, packaging information, bill of materials)
- **Equivalence** - This association is used to create peer-to-peer relationships between products (for example, cross-sell, functional equivalent). This type of product association is non-hierarchical and assumes equivalence, which implies transitivity. In other words, if you associate product A with products B and C, then when looking at product B you will see products A and C, and when looking at product C you will see products A and B. Similarly, if you associate products A and B, and then associate products B and C, when you look at product A you will see products B and C ($A=B$, and $B=C$ therefore $A=C$).

The screen contains the following items:

Equivalence. If checked implies Equivalence association as defined above, if unchecked implies a Hierarchical association.

Attributes. Information of interest to capture about the related products; for example, quantity, effective-date, packaging.

Enforce strict hierarchy. This can be used to prevent circular definitions from grandparent to parent to child.

Show as separate tab on Product Detail page. This can be used to designate that the type be displayed on a distinct tab on the product detail page. The association types that are not checked are collapsed onto the single generic Product Associations tab for editing purposes. This provides administrators the flexibility to highlight the most important Product Association Types when editing product data.

You can maintain the master list of available product association types and their attributes. These product association types are used on the product detail screen to associate products with one another.

Adding or Editing Product Associations Types

To create a Product Association type press Add new. To change or delete an existing attribute group, press the product association type name in the left pane. The selected product association type appears in the right pane.

Fig. 7.14
Product Association Type Info

The screenshot shows the 'Product Association Type: Component' window. The 'Attributes' tab is selected. The 'Name' field is 'Component' and the 'Description' is 'Makes up part of another product'. There are checkboxes for 'Equivalence', 'Enforce strict hierarchy', and 'Show as separate tab on Product Detail page.'. Below these is a section 'Roles that can change attributes on this Product' with an 'Association Type' list and an 'Available' list containing: allButJobs, CatalogMaintainer, CompanyMaintainer, ExportMaintainer, and ImportManagerServerRunner. At the bottom are 'Apply changes' and 'Discard changes...' buttons.

Add or edit the values and press Apply changes, or press Discard changes.

Chose the Attributes tab to define the set of attributes for the association type. To control the order of attributes and to select Global attributes to be viewed for the association when editing in the Product Information Management press Change Order.

Fig. 7.15
Product Association Type Attribute

The screenshot shows the 'Product Association Type: Package' window. The 'Attributes' tab is selected. It displays a table of attributes:

Attribute Name	Required	Searchable	Displayed in Grid	Type
Effective Date	☐	Full	☒	Date
Expiration Date	☐	Full	☒	Date
Quantity	☐	Full	☒	Numeric

Below the table are buttons for 'Add Attribute...', 'Change Order...', 'Apply Changes', and 'Discard changes...'.

To control the order of attributes press Change Order.

In addition to part number, the related product's description and global attribute values can be displayed to aid in identifying the product.

To add an attribute, select the Add Attribute button.

Note Attributes may not be defined for associations marked as Equivalence.

Fig. 7.16
Add Product Association Type Attribute

The screenshot shows a web browser window titled "Product Association Type Attribute - Windows Internet Explorer". The address bar shows a URL starting with "http://167.3.44.118:8080/pps70/ContentMgmt/ProductAssociationTypeAttribute.html?notify=opener.Attribute". The main content area is titled "Attribute for Package" and contains the following fields and options:

- Name:** A text input field.
- Description:** A text area with a scroll bar.
- Datatype:** A dropdown menu currently set to "String".
- Maximum String Length:** A text input field.
- ☐ Product Associations are required to have a value for this attribute
- ☐ Multivalued
- Searchable:** A dropdown menu currently set to "None".
- ☐ Identifying Attribute
- Buttons:** "Ok" and "Cancel" buttons at the bottom.

For more information on attributes see “Add an Attribute to a Template or Template Group” on page 76.

To delete a product association type select Delete. At this point, you'll have the opportunity to confirm the delete of a selected product association type.

- If the selected type is unused it can be deleted by pressing OK.
- If the selected type is in use a report displays and you cannot delete the association type.

Product Company Association Type

Product Company Association Types are used to relate products to companies. Examples of usage would be to keep track of sources for a product and the distinct item number used by each source. Or, this can be used to maintain the list of trading partners to whom a product is sold. This infrastructure is used by the 1Sync adaptor to maintain synchronization information for each trading partner.

Note Product Information Management ships with two default Product Company Association Types: Manufactured By and Bundle.

Under Company Product Associations within the Product Manager you can maintain the master list of available company product association types. These company product association types are used on the product detail screen to associate products with one or more additional companies.

Add or Edit Company Product Association Type

To create a Company Product Association type press Add new. To change or delete an existing product company association type, press the company product association type name in the left pane. The selected company product association type appears in the right pane.

Fig. 7.17
Product Company Association Type

The screenshot shows the 'Product Company Association Type' form in the FULL TILT software. The form is titled 'Product Company Association Type: Distributed By'. It includes the following fields and controls:

- Name:** A text box containing 'Distributed By'.
- Description:** A text box containing 'Product is distributed by this company'.
- Restrict Companies to those with Company Code:** A dropdown menu showing '< None >'.
- Status Values (one per line):** A large text area for entering status values.
- Buttons:** 'Apply Changes', 'Discard changes', 'Delete', and 'Help...'.

Change the values of an existing company product association type and press Apply changes or, press Discard changes.

To delete a company Product association type select Delete. At this point, you'll have the opportunity to confirm the delete of a selected product company association type.

- If the selected type is unused it can be deleted by pressing OK.
- If the selected type is in use a report and you will be unable to delete the company product association type.

Currencies

Product Information Management ships with default currencies that are pre-loaded into the database. To view the list of currencies select Currencies in Product Management.

To create a new Currency Add New. To change or delete an existing Currency, press the Currency Code or Name in the left pane. The selected currency appears in the right pane.

Fig. 7.18
Currency Info

The screenshot shows the 'Currency Info' form in the FULL TILT software. The form is titled 'Currency: USD'. It includes the following fields and controls:

- Code:** A text box containing 'USD'.
- Name:** A text box containing 'US Dollar'.
- Buttons:** 'Apply Changes', 'Discard changes', 'Delete...', and 'Help...'.
- Left Pane:** A list of all currencies with their codes and names, including:
 - ADP Andorran Peseta
 - AED UAE Dirham
 - AFA Afghani
 - ALL Lek
 - AMD Armenian Dram
 - ANG Netherlands Antillean Guilder
 - AOA New Kwanza
 - ACR Kwana Reajustado
 - ARS Argentine Peso
 - ATS Shilling
 - AUD Australian Dollar
 - AWG Aruban Guilder
 - AZM Azerbaijanian Manat
 - BAD Dinar
 - BBB Barbados Dollar
 - BCT Taka
 - BEF Belgian Franc

Change the values of a currency and press Apply Changes to record the change in the database. Or, press Delete to remove the entry.

To delete a currency select Delete. If the selected currency is unused it can be deleted by pressing OK.

If the selected type is in use a report will be produced showing where it's used and you will be unable to delete the currency.

Product Viewer

This chapter provides information about the Product viewer. This chapter discusses the following topics:

Text Searching **150**

Parametric Searching **153**

Product Comparison **154**

Product Detail **155**

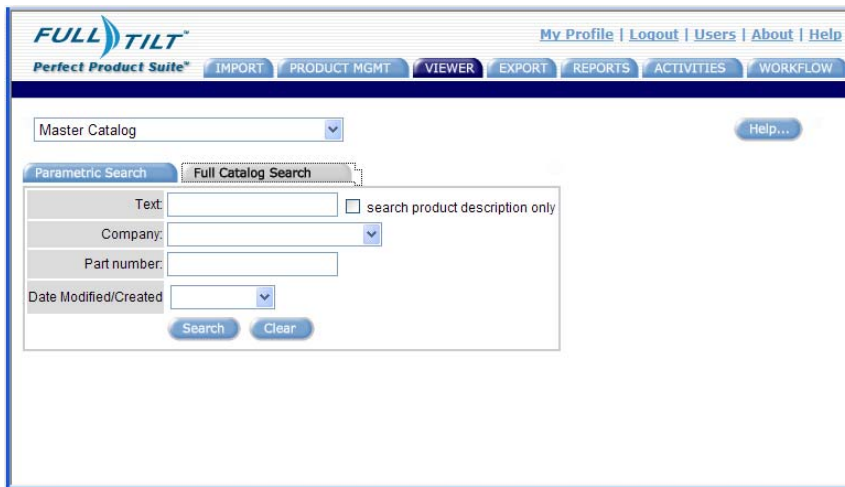
The Product Viewer allows you to search for and compare products. You can use two different methods to search for products: Parametric (Attribute) Search or Text Search by product description, manufacturer, or part number.

Text Searching

You can search for products by their description, manufacturer name and/or part number by using the following steps:

- 1 From the Product Viewer tab, select the Full Catalog Search tab.

Fig. 8.1
Text Searching



The screenshot displays the FULL TILT Perfect Product Suite web application. At the top, there is a navigation bar with links for 'My Profile', 'Logout', 'Users', 'About', and 'Help'. Below this is a secondary navigation bar with tabs for 'IMPORT', 'PRODUCT MGMT', 'VIEWER', 'EXPORT', 'REPORTS', 'ACTIVITIES', and 'WORKFLOW'. The 'VIEWER' tab is currently selected. In the main content area, there is a 'Master Catalog' dropdown menu and a 'Help...' button. Below these, there are two tabs: 'Parametric Search' and 'Full Catalog Search'. The 'Full Catalog Search' tab is active, showing a search form with the following fields: 'Text' (with a checkbox for 'search product description only'), 'Company' (a dropdown menu), 'Part number' (a text input), and 'Date Modified/Created' (a dropdown menu). At the bottom of the form are 'Search' and 'Clear' buttons.

- 2 Type a portion of the product description in the text field. To search text that is only in the product description check the checkbox labeled search product description only. By default PIM searches description and searchable attribute values. Sometimes, it's useful to disable this feature for a specific search, when you're certain the text appears in the description.
- 3 Enter the manufacturer name.
- 4 Enter the manufacturer part number. To perform wildcard searching on part number substitute an asterisk (*) for the string. For example, to find any part that ends in A123, search for *A123.
- 5 Select Search. PIM displays the Products Found.

Fig. 8.2
Product Viewer Products Found



- 6 Select the products you want to compare, and select Compare. See “Product Comparison” on page 154.

Text Search Examples

Desired Search	SQL Server	DB2	Oracle
Products with the exact phrase "tree climbers".	"tree climbers"	"tree climbers"	"tree climbers"
Products with either of the words tree or climbers within the text.	tree climbers	tree climbers	tree climbers
Products with both of the words tree and climbers within the text.	tree AND climbers	tree AND climbers	tree AND climbers
Products with either of the words tree or climbers within the text that do not contain the word leather.	tree climbers and not leather	tree climbers and not leather	tree climbers not (leather) NOTE: including an and before the not causes a failure.
Products with words sharing the prefix climb (e.g. climbers, climber, climb).	Climb*	climb%	Climb*
Wildcard. Products with words that begin with cli.	cli*	cli%	cli*
Wildcard. Products with words the begin with clim and have exactly one (or more) other trailing character.	clim_	clim_	clim_
Wildcard. Products with the string "limb" embedded within them.	*limb*	%limb%	*limb*

Desired Search	SQL Server	DB2	Oracle
Sounds like smith.	n/a	sounds like smith	'!smith'
Fuzzy. Products that are misspelled or search words that are misspelled. Products that have words that might be misspelling of cat and read.	n/a	n/a	cat read For the purpose of the search above, cat would be expanded these words: cat, cats, calc, case. Read would be expanded to: read, lead, real .

SQL Server Specific Notes:

Some additional explanation of SQL Server's noise words and their effect upon searching. They are not exactly ignored at search time. Consider them placeholders. When searching, a token that is a noise word must be present to get a hit on a string with an embedded noise word - when doing an exact match.

As an example, assume the text Level of confidence existed in a product's searchable text and the words of and the and all single digit numbers are noise words (similar to default conditions in SQL Server). Each of the following searches would find products with the text Level of confidence:

- "Level of confidence".
- "Level and confidence".
- "Level 4 confidence".
- "Level 5 confidence".

These would not find a match:

- "Level confidence".
- "Level assuming confidence".

A simple search, with unquoted content is basically looking for the tokens (words) anywhere in the search text in any old order. The presence of an extra word will not help find something, but it will not prevent it either. The relevance ranking is calculated based upon the total number of searchable words and the number of discreet matches. Each of the following searches would find products with the text Level of confidence:

- Level of confidence.
- Level confidence.
- Level assuming confidence.
- confidence.
- Level.
- confidence level.

Parametric Searching

All of the products in the database are associated with attributes. These attributes describe the products and some of them are searchable. For example, the searchable attributes associated with carrying cases and covers are color, fabric, model, etc.

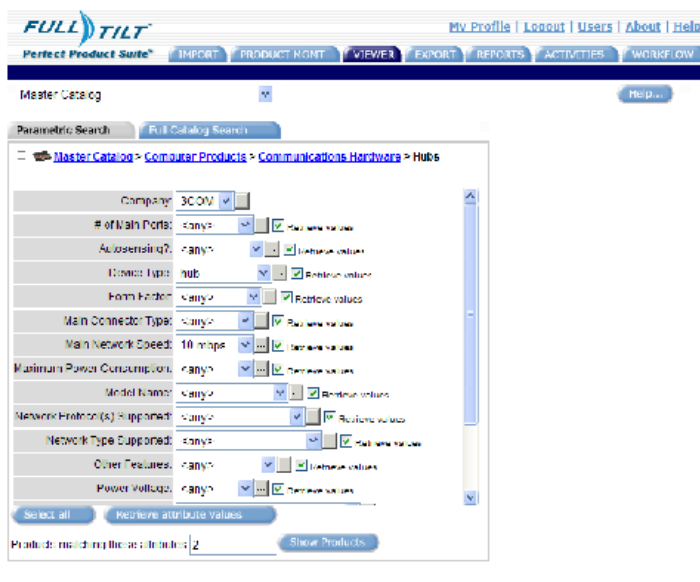
Narrow your search of products by selecting the value(s) specific to each attribute. For example, if you only wanted to view/compare fabric carrying cases made from koskin, select that fabric from the drop down list. You can then see the number of available products based on the criteria you select.

To perform a (attribute) parametric search:

- 1 Select the Product Viewer tab. The Product Viewer window displays.
- 2 Select the catalog that you want to view, and then drill down through the catalog until you reach the specific product class you want to view. For example, drill down from Computer Accessories to Carrying Cases and Covers. The Search for products matching window displays all the attributes associated with the product you selected and the number of products matching these attributes is listed at the bottom of the window.

Note The list of available attributes shown in the right panel depends on the product group selected in the left panel. As you select particular attribute values, PIM determines how many products satisfy the selected criteria and displays that count in the lower right panel.

Fig. 8.3
Parametric Search



- 3 All of the values for the attributes default to any from the list boxes. To narrow your search, select a value for any of the attributes that display. (For example, a few of the product attributes for staplers are color and list price. The options under fabric are ballistic, cloth, koskin. Select one of the fabrics to narrow your search. Once the first attribute value is selected, you can further refine your selection by choosing a second attribute's value from its list of values.

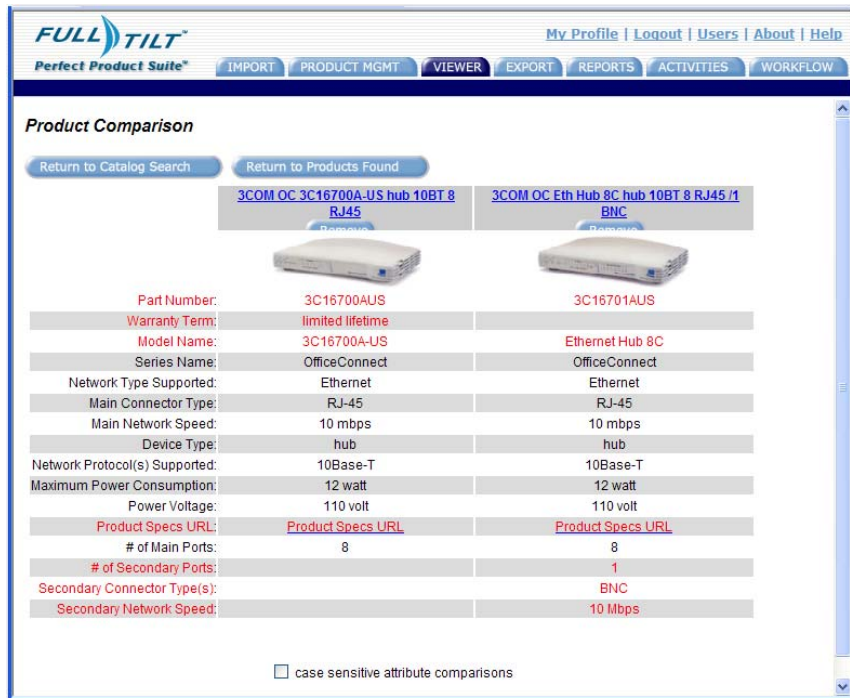
- 4 To view all the products that match that criteria, select Show Products. The Products found window displays the manufacturer name, part number, product description, and price information for all the products.
- 5 Select the products you want to compare, and select Compare. The Product Comparison window displays.

Product Comparison

The Product Comparison window displays all the products you selected side-by-side so that you can make an easy comparison.

- Side-by-Side detailed comparison of products.
- Detailed images and/or specification sheets.
- Product differentiators are highlighted.

Fig. 8.4
Product Compare



The attribute names are listed in the left margin and the product names are listed at the top of the window. Attribute values are shown in black text if the data is the same across all selected products. Attribute values highlighted in red text clearly identifies information that is different

To drill into details for a particular product, select the link associated with the name of the product, which is located at the top of the window. The product details and, if available an image of the product display in a product window.

If an image is available for the product, an iconized version of it appears directly below the product description. To view the full-size image of the product, select the image. The image of the product displays in an image window.

Attributes that are defined as External URLs (typically schematic diagrams or MSDS sheets maintained in a separate location) are hyperlinks. An example of this, might be a spec sheet.

Product Detail

For information on a product, select the product name from the Products Found window. The Product Detail window displays all the information about the product.

- Product Information.
- Request information on the manufacturer.
- Initiate "interchange search" - Find Similar products.
- Print Cut Sheets.

Fig. 8.5
Product Detail

The screenshot shows the 'Product Detail' window for the 'DE-809TC hub 8 RJ45 /1 BNC'. The window has a blue header with the 'FULL TILT' logo and navigation links: 'My Profile | Logout | Users | About | Help'. Below the header is a menu bar with 'IMPORT', 'PRODUCT MGMT', 'VIEWER' (selected), 'EXPORT', 'REPORTS', 'ACTIVITIES', and 'WORKFLOW'. The main content area has a title bar 'DE-809TC hub 8 RJ45 /1 BNC' and three buttons: 'Return to Catalog Search', 'Return to Products Found', and 'Print...'. The product details are listed on the left, and a product image is on the right. Below the details is a section for 'Other Products associated back to this product' with two tables: 'Close match Products' and 'Exact match Products'.

Product Details:

- Company: [D-Link](#)
- Part number: DE809TC
- Series Name: DE-809TC
- Device Type: hub
- Main Connector Type: RJ-45
- Main Network Speed: 10 mbps
- Maximum Power Consumption: 12 watt
- Network Type Supported: Ethernet
- Power Voltage: 110 volt
- Product Specs URL: [Product Specs URL](#)
- # of Main Ports: 8
- Part # URL: [Part # URL](#)
- # of Secondary Ports: 1
- Secondary Connector Type(s): BNC
- Secondary Network Speed: 10 Mbps

Other Products associated back to this product

Close match Products:	Qty	Company	Part number	Description
		Allied Telesis	ATMR420TR15A	AT-MR420TR hub 10BT/2/5 4 RJ45

Exact match Products:	Qty	Company	Part number	Description
		3COM	3C16700AUS	QC 3C16700A-US hub 10BT 8 RJ45
		3COM	3C16701AUS	QC Eth Hub 8C hub 10BT 8 RJ45 /1 BNC
		Allied Telesis	ATMR815T10	CentreCOM AT-MR815T SA hub 10BT 8 RJ45

Find Similar Products

To find products similar to the another product, select Find Similar Products. There are two methods that can be used in doing a Find Similar -or- Interchange search.

- 1 If the product's template is associated with an attribute group that is marked as Interchange, PIM automatically performs a reverse search for products with like values for the interchange attributes. The results are displayed in the products found screen.
- 2 If the product's template is not tied to the Interchange attribute group, PIM permits the user to identify the attributes on which the Find Similar search should be performed. Under those circumstances the user will see the following screen.

Fig. 8.6
Find Similar Products

The screenshot shows the 'Find Similar Products' interface within the FULL TILT Perfect Product Suite. The top navigation bar includes links for 'My Profile', 'Logout', 'Users', 'About', and 'Help'. Below this is a menu with 'IMPORT', 'PRODUCT MGMT', 'VIEWER', 'EXPORT', 'REPORTS', 'ACTIVITIES', and 'WORKFLOW'. The main content area is titled 'Find Similar Products' and contains two buttons: 'Return to Catalog Search' and 'Return to Products Found'. A 'Help...' button is in the top right corner. The central part of the screen is a table with a header 'From: Hubs' and a sub-header 'With matching attributes:'. The table lists various attributes with checkboxes and their corresponding values. At the bottom, there is a 'Show Products' button.

From: Hubs	
With matching attributes:	
☐ Warranty Type	= limited
☐ Warranty Term	= lifetime
☐ Series Name	= AT-MR400
☐ Device Type	= hub
☐ Main Connector Type	= RJ-45
☐ Main Network Speed	= 10
☐ Maximum Power Consumption	= 12
☐ Network Type Supported	= Ethernet
☐ Power Voltage	= 240
☐ # of Main Ports	= 4

At the bottom of the table is a button labeled 'Show Products'.

Select the checkbox to the left of the attribute to include in the Find Similar search, press Show Products.

Note The product that was used to drive the search is included in the list that's displayed. This permits easy comparison between the targeted product and those that are similar to it.

Export Manager

This chapter provides information about Exporting Products. This chapter discusses the following topics:

Exporting Products **158**

The Export Manager allows you to export products and their attributes to external files for possible use by internal systems, external systems and trading partners to add to their catalogs.

PIM allows you to:

- Export an entire catalog of product classes and products.
- Narrow your export by selecting only those products from one or more manufacturer.
- Narrow the export by specifying a subset of the available product completion states.
- Filter the export's contents based upon values of attributes.

PIM supports export to tab delimited, Product Information Management XML and IBM Websphere Commerce Suite XML (configuration dependent) formats. In addition, custom written plug-in formats may be available in your installation.

Exporting Products

There are two steps to running an export:

- 1 Define the export contents. While an export can be run ad-hoc, an export definition can be saved for future use and for scheduling.
- 2 Executing the export. Exports can be executed on demand from the UI, or scheduled to run using PIM's scheduling capability. It is common to define an export at the UI and save the definition for future exports.

Export output can be distributed:

- When running an export ad-hoc, from the UI, the user can download the export data to a destination of their choice.
- To a list of e-mail addresses or PIM users.
- To a directory structure.

Fig. 9.1
Export Manager

The screenshot shows the 'FULL TILT Perfect Product Suite' Export Manager window. At the top, there's a navigation bar with links: 'My Profile | Logout | Users | About | Help'. Below it is a menu bar with 'IMPORT', 'PRODUCT MGMT', 'VIEWER', 'EXPORT', 'REPORTS', 'ACTIVITIES', and 'WORKFLOW'. The main interface has a toolbar with buttons: 'New', 'Open...', 'Save', 'Save as...', 'Delete...', 'Schedule...', 'Export...', 'Mappings...', and 'Help...'. The settings are organized into sections: 'Description' (text field), 'Owner' (dropdown: '(None) Available to others'), 'Export Format' (dropdown: 'Text Separated Value'), 'Export Options' (checkboxes: 'Include content from external URL product attributes', 'Include any identifying attributes in the part number value exported', 'Hyper-threaded export' (checked), 'Use Sparse Matrix'), 'Field delimiter (T for tab):' (text field: 'T'), 'Export products:' (Catalog: 'Master Catalog'), 'Product Classes:' (Included, Show Available Product Classes checkbox), 'Companies:' (Included: '<All Product Companies>', Available Companies list: '3COM', 'ABC', 'Addonics', 'Allied Telesis', 'Altec Lansing'), 'Filters:' (checkboxes: 'Only include products with state of:'), 'Other options:' (checkboxes: 'Export Images' (checked), 'Add/Change/Delete: Generate tags comparing to: < Last completed export >', 'Save export to server as:'), and 'Generate unique file names' checkbox.

To create a new export definition:

- 1 Provide a description -- this will be displayed in the export open dialog to aid in identifying the export.
- 2 Choose an Export Format (for example, Tab Separated Value).
- 3 If the export is for use by all users of PIM, select the Public checkbox.
- 4 Select a catalog that will be the basis for the export.
- 5 To limit the export to specific classification node(s):
 - a Choose subsets of the catalog, select the checkbox labeled Show Available Product Classes.
 - a Choose one or more classification nodes on the left pane and Add to Export.
 - a The Included column will identify the list of selected nodes.
- 6 Limit the export to specific manufacturer's products by selecting from the available list.

- 7 Limit the export to specific product state's by choosing the checkbox and highlighting the product states in the available list.
- 8 Select an encoding scheme for the file.
- 9 Choose a location and file name for the export by pressing Browse to the right of the Save export to server as label. See “Save Exported Data to the File System” on page 164 for more information.
- 10 Choose a list of addressees to be notified when the export is completed.

Important When e-mailing a notification upon completion of an export, if save export location has been defined, the e-mail will include a hyperlink to the file (not an attachment). Otherwise, the e-mail will include a file attachment.

- If exports are expected to be large, you may want to strongly consider saving the export to a server location and distributing a small e-mail with a pointer to the interested consumers.
 - The server location must be available to the e-mail recipients.
 - If exports are scheduled on a recurring or periodic basis, and the contents saved to the server, only the most recent export is available on the server.
- 11 Press Save as to initiated the Export Save As process.
 - 12 Once saved and ready for export, select Export.

Filter the Contents of an Export

- Companies -- The Companies list identifies the subset of company's products that will be included in the export.
- Product State -- The Products Only include products with completion state of checkbox and list combo will further filter the list by product state.
- Attribute values -- Additional attribute filters are added dynamically based upon the PIM configuration. See “Attribute Groups” on page 134 for how to create attributes that can be filtered when exporting attribute group Information.

The filtering capability can be used in many ways. As an example, as a distributor, you could choose to setup a generic catalog for a line of goods. The export definitions can be setup to filter this catalog's content by:

- A set of high end manufacturers.
- A subset of the entire product line.
- Products that are being featured (product state filter -or- attribute filter).

Using the Auto Synchronization Function

This feature is designed to permit you to create an export definition and allow PIM to track what has changed over time so that delta export files can be created and provided to target systems/users. These delta files will contain only the products that are added, changed or deleted with respect to the export definition. By using PIM to track the changes, you are certain to share the exact data that is relevant to a consumer.

To use Auto synchronize:

- 1 Create an export definition.
- 2 Once the export definition is correct, turn on the Generate Add/Change/Delete tags checkbox. Take the default option to compare to Last Completed Export. This option should only be changed if there is a system or synchronization failure.
- 3 Save the export definition.
- 4 Schedule the export definition to run with a periodic schedule.
- 5 The first execution of the export will generate Add transactions for each product that's present.
 - a The second and beyond export executions will generate:
 - Add transactions for products that are new to the export.
 - Change transactions for products that have changed with respect to the export.
 - Deleted transactions for products that have been deleted with respect to the export.

PIM manages a history of the generations of exports for each export definition that has been run with the Generate Add/Change/Delete tags option checked. Those generations of exports are listed just below the checkbox option with their date/time stamp. To view the history summary select Export History.

These compressed records of each generation of export are used to perform a context sensitive comparison to determine if the products have changed.

The result of this is that Add, Change and Delete are always generated with respect to the export definition and the history that is being used for comparison. For example, a product that has been in the database for years may be considered an Add in an export because it was recently classified in the catalog being exported.

Examples of changes that can trigger inclusion in an export:

A product's state changes, qualifying it for an existing filter on the export.	add
The export definition is changed to include a product state that was not there before.	add for all product's of that state.
Existing products are classified into the catalog. They match filters in the definition.	add
Product's manufacturer is changed from one that's in the export definition to one that's not in the definition.	delete
Template's attribute group is modified to include additional attributes. The attribute group is tied to the catalog associated with the export definition.	change for products that have a value for the new attributes.
Catalog's definition is modified to include a new attribute group.	change for products that have a value for any of the attribute group's attributes.
Catalog's definition is modified to remove an attribute group.	change for products that had a value for any of the attribute.

Product's attribute values are changed for attributes that are included in the catalog tied to the export definition.	change
Product's attribute values are changed for attributes that are NOT included in the catalog tied to the export definition.	unchanged.
Export definition changed to remove a product state.	delete for all product's that were in that state as of the previous export.
Export definition changed to remove a manufacturer.	delete for all product's that were associated with the mfg as of the previous export.

Important Limitations and tips on the use of auto synchronize:

- This feature is designed for use when the target system is a slave to Product Information Management for product information.
- Manual intervention in the target system to ignore or avoid transactions or exports from Product Information Management should be avoided.
- Modification of the option to compare to anything other than the Last Completed Export should only be changed after judicious review of the process that led to the need to consider this and with full awareness of the potential outcome.
- A synchronization can be restarted (generate all Adds) by choosing to compare to none.
- If a product is exported more than once in the same export operation (due to being classified in the catalog multiple times), then system may generate a changetag when it should have been unchanged and vice versa.

Modify an Existing Export Definition

- Press Open.
- From the resulting Export Open, choose an export to modify.
- Change the definition as you would when creating a new export.
- To replace the definition press Save.
- To create a new definition based on the changes, provide a new description and press Save as.

Schedule an Existing Export Definition

- Press Open.
- From the resulting Export Open, choose an export to schedule.
- Press Schedule and complete the scheduling parameters as desired.

Alternately, exports, can be schedule from the job scheduler from within the import manager. In the full job scheduler, the current exports that are scheduled can be viewed and historical information on exports can be retrieved.

Perform an Unplanned Export

Chose an export definition as above, or create one from scratch.

- Press Export.

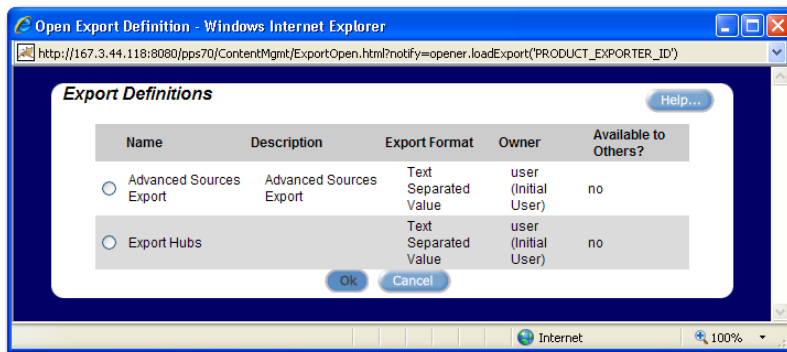
- The export status window pops up to show progress.
- Upon completion Downloading the Export File.

Note In addition to the export manager's export capabilities, ad-hoc exports can be initiated directly from the Products Found screen.

Open an Export Definition

This screen is accessed from the export manager by pressing Open. The list of definitions will include all public entries as well as any private definitions for the user. Chose a definition on which you would like to operate by selecting the radio button and pressing OK. You will be returned to the export manager, the chosen definitions will appear in the export manager.

Fig. 9.2
Open Export



Delete an Export Definition

This screen is accessed from the export manager. To initiate a delete of a saved export definition, first open the definition and from the export manager's main screen, press Delete. The confirmation pop-up message below will appear.

Export Selected Products

Selected products can be exported directly from the product manager's Products Found screen.

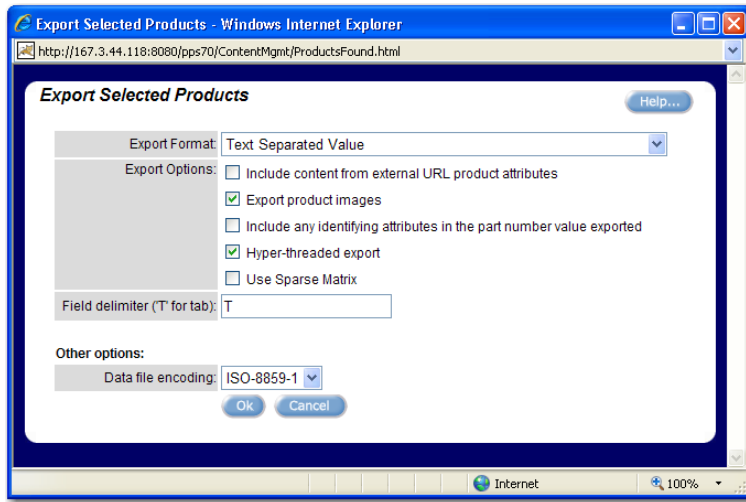
This feature is designed to facilitate direct export of a discreet set of products from the product manager.

The Export Manager allows you to create and save persistent export definitions which can be scheduled to execute periodically or deliver export contents to recipients. The Export Manager is designed for designing and executing repeatable exports.

To perform an unplanned export from products found:

- 1 Search for a set of products from the Products tab within Product Management. From the products found screen select a subset of products to export. Chose the Export Action from the action drop down list.
- 2 The Export Selected Products screen displays.

Fig. 9.3
Export Selected Products



- 3 Chose an export format and the options that apply.
- 4 Press OK to initiate the export.
- 5 The export status window pops up to show progress.
- 6 Upon completion see “Downloading the Export File” on page 167.

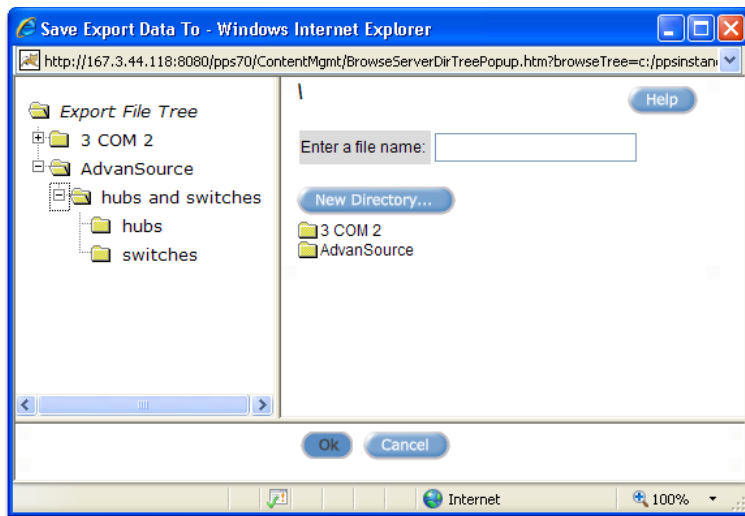
Save Exported Data to the File System

PIM permits the user to select the directory location and file name for an export. Scheduled exports can be distributed to users in two different manners: as e-mail attachments, or as e-mail hyperlinks. Designating a location to place the export file enables the hyperlink method.

To enable distribution of exports via hyperlinks, you must specify a location on the designated file server where the export will be placed. Once the export is completed an e-mail will be distributed to the recipients with the link that will allow them to choose to download the export.

To open export file directory structure select Browse next to the Save export to server as field in the Export Manager.

Fig. 9.4
Browse Server Directory List



The directory structure beneath the Export File Tree home is available to be used for saving and sharing exports. This home directory is a generic name for a specific named location that is configured by your system's administrator.

To navigate through the directory's structure position your mouse in the left hand pane and select the folder of interest. To expand a folder (one with a + sign), select the file or the + sign. As you navigate through the hierarchy, the path that is current is displayed in the right hand pane.

To create new subdirectories navigate to the folder in the structure under which you would like to create a directory. Select New Directory. Type the name of the directory and select OK.

To specify a file name, once you've chosen the desired folder and it is displayed in the right hand pane, choose an existing file name from the list in the right pane, or type the desired name in the text box.

When scheduling a recurring or periodic export to a file location, each new export replaces the previous export file contents.

It is possible to point to the same directory/file combination for more than one exports. This should be used judiciously since the file contents are replaced by the next export that uses a file name within a directory.

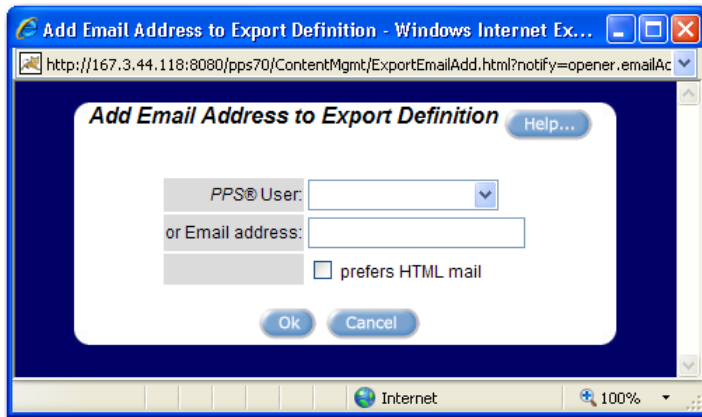
Renaming and reorganizing the export directory structure is not supported in PIM. This can be reorganized by your system's administrator.

Add an Export eMail

From the Export Manager screen, select Add next to the When export complete send email to field.

- Provide an e-mail address.
- Or, choose a Product Information Management user.
- Indicate if the e-mail should be sent as HTML (otherwise, plain text will be sent).

Fig. 9.5
Add Export Email



Viewing the Status of the Export

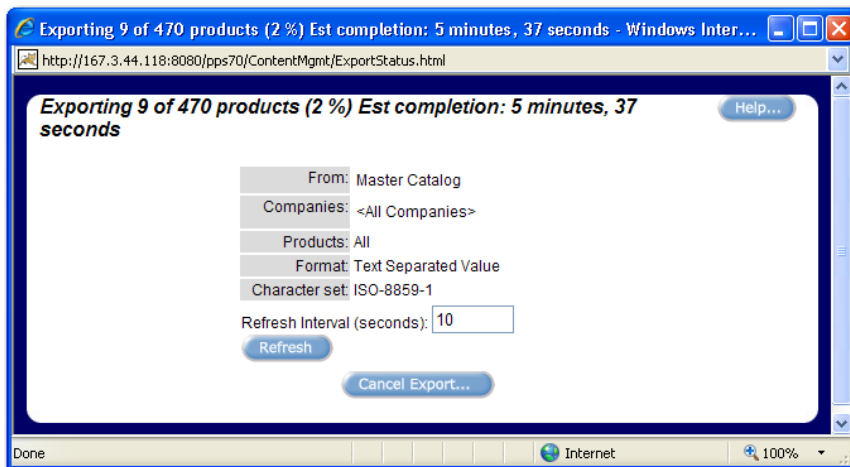
To view and edit the Export Status window, use the following steps:

- 1 Upon initiating a product export, the Exporting Products Status window is spawned. The progress of the export can be viewed from this window.

Note While the export is running do not navigate elsewhere. Your export will continue to run, but you'll be disconnected from the progress window. In this event, if a user was specified as receiving an e-mail when the export completes, the e-mail will be generated with the export contents, or a hyperlink to the contents.

Note For large exports, test the export definition with small quantities of data. Then, save the definition and schedule the export to run immediately. Then, you can safely proceed to other activities within PIM.

Fig. 9.6
Export Status



- 2 To refresh the window, select Refresh. If you want to change the interval seconds, enter a new number in the Refresh Interval (seconds) field.
- 3 To close this window and exit the export, select Cancel Export.

Downloading the Export File

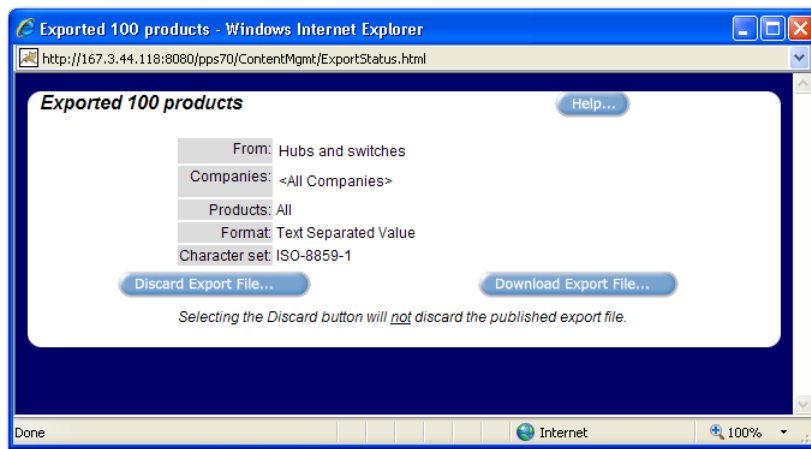
Once the export has completed, you can download the export file from the Exported Products window.

The export file is a compressed file (zip). Its default name is export.zip. Inside the export.zip file, will be a tab delimited file named export.tsv. If there are images associated with any of the products included in the export, a zip file (images.zip) of the images will be included in the export.zip.

To download the export file, use the following steps:

- 1 The Exporting Status Products window's display will change to indicate the export has completed and is ready for download:

Fig. 9.7
Export Download



- 2 To download the export file, select Download Export File. The File Download window displays.
- 3 You have a choice to save this file to disk or to open this file from the current location. Make your selection and select OK. The export.zip file is saved to the designated file system. It is recommended that file names be used that make it easy to identify the file contents for future use.

Export History

To view the history of an export, select View next to the Add/Change/Delete field in the Export Manager. This screen displays:

- The name of the export definition.
- Date completed and time completed.
- The status of the export.
- Number of products exported.

If an eMail was sent upon completion of the export, body of the e-mail contains:

- Status.

- Exported date of time this export was compared against.
- Product counts (added, changed, unchanged and deleted).

Reports

This chapter provides information about the Reports function of Product Information Management.

Report Type **170**

Report Type Definition **170**

Report Type

The Reports screen is where the user can define new report types and modify existing report types.

- Report Type - A Jasper report that is available to PIM.
- Report Definition - A defined instance of a Report Type that includes runtime parameters, delivery options and a selected format (PDF or HTML).
- Scheduled Instance - A scheduled instance of a Report Definition.

From this screen you can maintain the lookup table column definitions and access the table for editing purposes.

To create a Report Type press Create Report Type. To change or delete an existing Report Type, press the hyper-linked Report Type name in the left pane. The selected Lookup Table definition appears in the right pane.

Fig. 10.1
Report Type Info

Report Type: Supplier Batch Detail

Name: Supplier Batch Detail

Description: FullTilt Supplier Batch Detail Report

Report File: SupplierBatchDetail.jrxml uploaded to server.

Parameter Name	Description	Order	Required
P_START_DATE	The starting date for detail report	1	☐

Buttons: Apply Changes, Discard changes

Adding new Report Types. This screen can be used to import a jasper report into PIM. To load a Jasper report, choose Select source file from the Action drop down menu.

Report parameters. The Jasper report defines the Runtime Parameters that are available for the report. In the example above a date field is being collected to be used to drive the report's contents. The description, order and required fields are used to control the creation of Report Definitions.

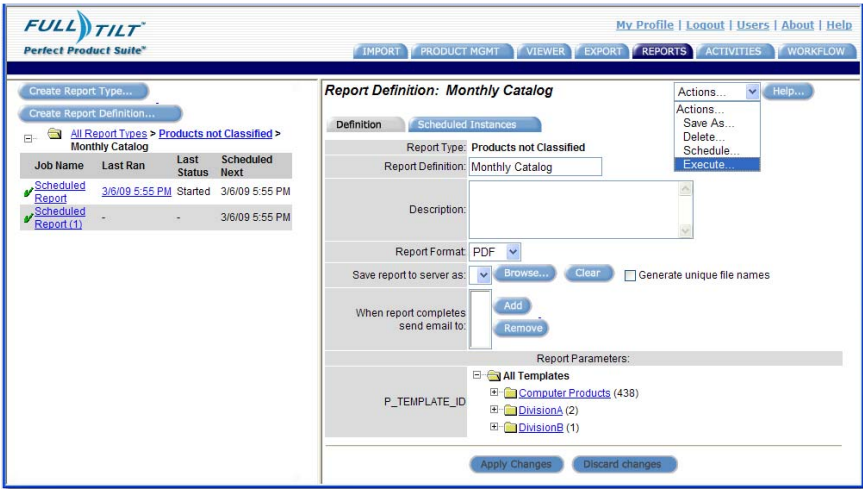
Report Type Definition

The report definition form is where the user can define instances of report types for executing at the user interface or for scheduling purposes. In addition, once a definition is created, it can be scheduled to run or executed at the user interface.

From this screen you can maintain the report definitions for a report type.

To create a Report Definition press Create Report Definition. To change or delete an existing Report Definition, press the hyper-linked Report Definition name in the left pane. The selected Report Definition appears in the right pane.

Fig. 10.2
Report Definition Info



Report Format: When running reports that include images, PDF must be selected.

Report parameters. The Jasper report defines the Report Parameters. In the example above a date field is being collected to be used to drive the report's contents.

Once you create or change the Report Definition press Apply changes.

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