Agile Product Lifecycle Management

Import/Export User Guide

v9.3

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Preface

The Agile PLM documentation set includes Adobe® Acrobat PDF files. The Oracle Technology Network (OTN) Web site http://www.oracle.com/technology/documentation/agile.html contains the latest versions of the Agile PLM PDF files. You can view or download these manuals from the Web site, or you can ask your Agile administrator if there is an Agile PLM Documentation folder available on your network from which you can access the Agile PLM documentation (PDF) files.

Note	To read the PDF files, you must use the free Adobe Acrobat Reader version 7.0 or later. This program can be downloaded from the Adobe Web site http://www.adobe.com.

The Oracle Technology Network (OTN) Web site http://www.oracle.com/technology/documentation/agile.html can be accessed through **Help > Manuals** in both Agile Web Client and Agile Java Client. If you need additional assistance or information, please contact support http://www.oracle.com/agile/support.html (http://www.oracle.com/agile/support.html) for assistance.

Note	Before calling Oracle Support about a problem with an Agile PLM manual, please have the full part number, which is located on the title page.

TTY Access to Oracle Support Services

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Readme

Any last-minute information about Agile PLM can be found in the Readme file on the Oracle Technology Network (OTN) Web site http://www.oracle.com/technology/documentation/agile.html

Agile Training Aids

Go to the Oracle University Web page http://www.oracle.com/education/chooser/selectcountry_new.html for more information on Agile Training offerings.

Accessibility of Code Examples in Documentation

Screen readers may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, some screen readers may not always read a line of text that consists solely of a bracket or brace.

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What's New in Import/Export for 9.3?

New features and enhancements implemented in the Agile PLM Import/Export Guide are summarized below. Much of the new content and updates document the redesigned and highly enhanced Release 9.3 Web Client user interfaces.

New in Importing Data

Selective Removal of BOM/AML rows — A new option called *Selective Remove* was added in Import Wizard's *Multi Row Update Behavior* preference. When you select this option, Import can selectively remove BOM or AML rows. See Multi Row Update Mode on page 48.

Item description behavior during import — Release 9.3 supports an additional behavior for the description of imported items in Redline or Authoring modes when a released version *is* or *is not* associated with the item. See Behavior of the Description of Items during Import on page 71.

The other changes include incorporating the Release 9.3 UI enhancements in Import procedures. You can find examples of these changes throughout the Guide. For example, in Setting Import Preferences on page 43.

New in Exporting Data

Changed Controlled Attribute — A user with administrator privileges can set this option in the Java Client to specify whether a given *item attribute* is *change controlled* or not. Once set, a user in the Web Client can track *Item Attribute Values by Change* (ECO or MCO). This option has no procedural impacts on this Guide, and only adds additional exported values when changes are exported to aXML with their redline information.

Agile aXML schema definition — This release documents the key components of the Agile aXML schema for exporting data. This information appears in the appendix called The Agile aXML Schema for Exporting Data on page 165.

Chapter 1

Import Basics

This chapter includes the following:

Overview

The Import component of the Agile Import/Export application enables selecting and importing data from external sources into different PLM modules. Importing data is performed with the aid of the Agile Import Wizard. This tool and the supported data formats in different PLM modules are described in this section of the guide.

About Agile Import Wizard

The Agile Import Wizard is the tool used to import data into the Agile PLM system. The supported formats are:

- Excel workbooks (XLS)
- Delimited text files (TXT)
- Product Data Exchange Packages (PDX)
- Agile XML (or aXML) files

Objects that you can import for different PLM solutions are listed below. For more information and procedures, see Preparing and Selecting Source Data on page 9.

Product Collaboration

Objects that you can import into the PC solution are:

- Item
- Manufacturer
- Manufacturer Part
- Part Group

Product Cost Management

Objects that you can import into the PCM solution are:

- Sourcing Projects
- Quote histories
- Published prices
- Suppliers
- Supplier RFQ responses
- Currency conversion tables

Product Service & Improvement

Objects that you can import into the PQM solution are:

- Product Service Request
- Quality Change Request
- Customer

Product Governance & Compliance

Objects that you can import into the PG&C solution are:

- Declarations
- Substances
- Specifications

Product Portfolio Management

Objects that you can import into the PPM solution are:

- Action items
- Discussions
- Projects

Before Using the Import Wizard

Before using the Import Wizard, make sure you have the necessary software and privileges.

- To import data into the Agile PLM system, you must have the appropriate Agile PLM privileges. See Privileges Required to Use the Import Wizard in the next section.
- To create PDX packages, use the Agile Content Service (ACS), Agile Web Client, or Agile Integration Services.

  Note Creating PDX packages is similar to creating aXML files.

- To view PDX packages, use Agile eXpress. You can download Agile eXpress from the following Website, or extract the Agile PDX package into the XML file which you can view using any XML viewer:

  http://www.oracle.com/technology/software/products/agile/index.html

- To create aXML files, you can use the Web Client, Agile Content Service (ACS), Agile Integration Services (AIS), or use the **Export aXML** command from the **Actions** menu of a declaration. You can view aXML files in any XML viewer, including Internet Explorer.
- Make sure the Agile PLM system has the necessary disk space to accommodate importing large PDX packages and aXML files.
- If you are importing data from text files, check your source data to make sure that it is properly formatted. *Do not skip this step.* The little time spent here will save you far more time in the end.

Privileges Required to Use the Import Wizard

To import Agile data, you must have Create, Discover, Read, and Modify privileges for each type of Agile object that you are importing. You must also have the ability to either create and modify change orders, or discover and read them. You need the Change orders to redline BOMs, AMLs, and published prices. In addition, you must also have the Import privilege.

If you have questions about privileges, contact your Agile PLM administrator or refer to the *Agile PLM Administrator Guide*.

To launch Import, you must have the My User Profile role, the Read User privilege, and the Import privilege.

Recommended Sequence to Import Data

Although you can import objects in any given order, it is more instinctive to import the *parent* object before importing data for the *children*.

Sequence for Importing Product Content

If you are importing product content, import your data according to the following recommended sequence:

1. Manufacturers
2. Manufacturer parts
3. Items
4. Bills of material (BOMs)
5. Approved manufacturers lists (AMLs)
6. Part Groups

> **Note** If you are importing data from aXML or PDX packages, you can import these objects in one session.

When you import data according to this recommended sequence, the parent items, manufacturers, and manufacturer parts will already exist and will be populated with data when you reach steps 4, 5, and 6 in the preceding list. If you do not follow the recommended sequence, the Import Wizard will create objects referenced in the import data. You can go back to a previous step in the sequence (for example, importing Items) to import data to objects that you created with the Import Wizard.

Sequence for Importing Published Prices

A price object references an item or manufacturer part, supplier, and customer. Therefore, you must import these objects before importing the price objects.

Sequence for Importing Product Service Requests

Product service requests reference customers and suppliers. Therefore, you must import customers and suppliers before importing Product service requests:

1. Customers
2. Suppliers
3. Product service requests

Sequence for Importing Quality Change Requests

Quality change requests reference customers and suppliers. Therefore, you must import customers and suppliers before importing Quality change requests:

1. Customers
2. Suppliers
3. Quality change requests

Sequence for Importing Supplier Manufacturer Offerings

Manufacturers referenced by a supplier's manufacturer offerings must already exist before the offerings are imported. Therefore, you must import manufacturers before importing supplier manufacturer offerings.

Sequence for Importing Product Governance & Compliance Objects

If you are importing Product Governance & Compliance data, Oracle recommends the following import sequence.

1. Substances
2. Specifications
3. Declarations

Objects that You Can Import in Any Sequence

You can import the following data at any time in any sequence:

- Attachments
- Projects
- Suppliers and supplier commodity offerings (See Sequence for Importing Supplier Manufacturer Offerings on page 5 above)
- Supplier RFQ Responses
- Currency Exchange Rates

Guidelines for Importing Large Import Files

Agile Import Server supports aXML files and PDX packages which can contain large number of objects in the thousands. For example, you can import hundreds of items from a PDX package, where each item can contain several hundred BOM components. Due to the potential for such large source files, the timing to invoke the import session is important.

For example, if you are importing large amounts of data during a single import session, it is recommended that you perform the session during non-business hours—evenings or during the weekend—when system usage is low.

How much data is considered a large amount? This is a function of your Agile PLM system and the size of your database. Use your best judgment. If you plan to import a large amount of data, do it after hours.

After the import session is finished, you can view the log file in a browser or save it to a file.

Note For faster results, uncheck the Log Transformations preference before importing a large file. For more information, see Setting Import Preferences on page 43.

Starting the Import Wizard

The Import Wizard provides a simple process for importing data into the Agile PLM system.

- To start the Import Wizard do as follows:
  - In Web Client select the Tools and Settings icon  **> Import**
  - In Java Client choose **Tools > Import**.

  The Import Wizard opens and prompts you for the import file.
- To import an RFQ response or items, BOMs, and AMLs for a sourcing project, you can start the Import Wizard from an RFQ or a sourcing project. For more information, see Importing Supplier and System Data and Importing Data into a Sourcing Project.
- To import an item using level template, select **Item > Actions > Microsoft Excel > Import from Excel**. See Importing Data from Microsoft Excel Files on page 26.

Note You can also start the Import Wizard by clicking the **Import** button on the **Attachments** tab of a package. For more information, see Importing Attachments from an Agile Package on page 88.

Import Wizard Steps

When you import data into the PLM, the Import Wizard displays the following steps to guide you through the process:

1. **File Selection** – Specify the import source
2. **Specify File Content** – Specify the content to import from the options below
3. Select Content Options – Select a mapping and data transformation method. If you are importing Item or Price content specify whether or not a Change Order is required for modifications.
   - If you are importing items or prices in Redlining mode, specify a change order for the import session. Also specify how fields in the import data should be mapped to Agile fields.
   - The Transformation Definition File Specifies how to modify the import data for the target Agile PLM system by replacing, prefixing, or suffixing certain fields. This is an optional step.

   Note Depending on the selected option in Step 3, Review mapping if you selected Mapping File, or specify mapping if you selected Define attribute mapping.
4. Specify Attribute Mapping – Specify and review attribute mapping definition.
5. **Review** Import Definition – Review the summary of your import definition. You can validate your definition to understand what import issues may exist.

Chapter 2

Preparing and Selecting Source Data

This chapter includes the following:

Supported Formats

The Import Wizard lets you import data in the following data formats:

Format	Description
Delimited Text File	A standard flat text file where each field of data is delimited by a special character, such as a comma or a tab.
Excel Workbook	Microsoft Excel workbook files. The Import Wizard supports files created with Microsoft Excel 2000, 2002, and 2003.
Product Data eXchange (PDX) Package	An industry standard format for product data based on XML (eXtensible Markup Language) technology.
Agile XML (aXML) File	Agile's proprietary XML format that includes data that is not supported by PDX, such as declarations, substances, prices, or suppliers.

About Agile PLM Fields

Before you import data from source files into the Agile PLM system, you should understand the requirements for each field for which you can import data. Certain fields are required, which means they must be mapped in the Import Wizard. Fields also have data types, which determine how the data should be formatted, and maximum lengths, which the Agile PLM system validates on import.

Each Agile object has the potential for several defining fields, which are instances of the attributes defined for that object's class or subclass. There are three-dozen default Agile classes, each with a default subclass, and the Agile Administrator can customize the system with additional subclasses that are applicable to your company.

Printing the Agile Classes Report

Before importing data, print the Agile Classes Report from the Web Client. Read the report and become familiar with the Agile data model. Make sure your source data conforms to the data requirements specified in the report.

To run the Agile Classes Report from the Web Client:

1. Click **Reports** in the Navigation pane.
2. Select **Reports and Analytics > Standard Reports > Administrator Reports > Agile Classes Report**.
3. Click **Execute**.
4. Specify parameters used to run the report. Click **Finish**. After a few seconds a File Download window prompts you to save or open the file.
5. Save the report to your computer.

The Agile Classes Report is a comma-separated text file. It lists the attributes available on each table of each class. It also indicates whether a field is required for the Import Wizard. If a field is required for the Import Wizard, source data must be mapped to the target field. Otherwise, the object cannot be imported.

Data Types

Each read/write Agile PLM field has one of the following data types:

Data type	Description
Text	A string value.
MultiText	Text that can span multiple lines.
Date	A date value.
Numeric	A number rounded to two decimal places.
Money	Similar to the Number data type, but it defaults to four decimal places and its unit is a particular currency.
List	A string value selected from a list of possible values.
MultiList	One or more string values (in comma-delimited format) selected from a list of possible values.
Unit of Measure (UOM)	A numerical quantitative measurement. The value is expressed as a number multiplied by a standard unit (for example, gram or ounce).

Maximum Length Values for Fields

Many Agile PLM fields have a maximum length. If a value exceeds the maximum length for a field, it is invalid and cannot be imported. The Import Wizard has a preference that lets you handle values that fail length validation. You can choose to either reject such values or truncate them so they can be imported. For more information, see Setting Parsing and Validation Options "Setting Parsing and Validation Options" on page 44.

All text fields have a maximum length. Some text fields are restricted to just a few characters. Others, such as the **Parts Class > BOM > BOM Notes** field can be much longer.

Date fields do not have a maximum length, but all date values must be a date format supported by the Agile PLM system. For more information, see Supported Date Formats on page 12.

Parent and Child Fields

Several read-only fields have a child relationship with other parent fields. Child fields derive their values from parent fields. Examples of child fields include BOM table attributes like “BOM.Item List02” and “BOM.Item Text01,” whose parent fields are located on Page Two.

It’s important for the Agile PLM administrator to ensure that all child fields are configured identically to their parent fields. Otherwise, problems could occur when you import data.

Supported Formats for Data Values

The Import Wizard supports a variety of date formats based on several different criteria, including user preferences and locale.

Note	The upper limit for dates is today’s date + 150 years. Date values later than that are invalid and cannot be imported.

Setting the Preferred Date Format and Time Zone

Each Agile user can select a preferred date format.

To change date format preferences for your Agile account:

1. Use one of Agile clients to set user preferences:
   - In Web Client, select My Settings button  **> Preferences > Edit**.
   - In Java Client's tool bar, select **Settings > Current User > Preferences**.
2. Select the desired date format in the **Preferred Date Format** field.
3. Select a GMT time zone in the **Time Zone** field.
4. Click **Save**.

Supported Date Formats

The Import Wizard supports all combinations of date and time formats available in the **java.text.DateFormat** class as well as additional formats. **DateFormat** provides many date and time formatting styles based on locale. The following table shows date formats available for the U.S. locale, evaluated in order:

Date Format	Example
MMM-dd-yyyy HH:mm:ss	Jul-10-2001 14:08:35
MMM-dd-yyyy HH:mm	Jul-10-2001 14:08
MMM-dd-yyyy hh:mm:ss a	Jul-10-2001 02:08:35 PM
MMM-dd-yyyy hh:mm a	Jul-10-2001 02:08 PM
MMM-dd-yyyy	Jul-10-2001
dd-MMM-yyyy HH:mm:ss	10-Jul-2001 14:08:35
dd-MMM-yyyy HH:mm	10-Jul-2001 14:08
dd-MMM-yyyy hh:mm:ss a	10-Jul-2001 02:08:35 PM
dd-MMM-yyyy hh:mm a	10-Jul-2001 02:08 PM
dd-MMM-yyyy	10-Jul-2001
EEEE, MMMM d, yyyy	Thursday, June 25, 1998
EEEE, MMMM d, yyyy h:mm a	Thursday, June 25, 1998 1:32 PM
EEEE, MMMM d, yyyy h:mm:ss a	Thursday, June 25, 1998 1:32:19 PM
EEEE, MMMM d, yyyy h:mm:ss a z	Thursday, June 25, 1998 1:32:19 PM GMT-05:00
MMMM d, yyyy	June 25, 1998
MMMM d, yyyy h:mm a	June 25, 1998 1:32 PM
MMMM d, yyyy h:mm:ss a	June 25, 1998 1:32:19 PM
MMMM d, yyyy h:mm:ss a z	June 25, 1998 1:32:19 PM GMT-05:00
MMM d, yyyy	Jun 25, 1998
MMM d, yyyy h:mm a	Jun 25, 1998 1:32 PM
MMM d, yyyy h:mm:ss a	Jun 25, 1998 1:32:19 PM
MMM d, yyyy h:mm:ss a z	Jun 25, 1998 1:32:19 PM GMT-05:00
M/d/yy	6/25/98
M/d/yy h:mm a	6/25/98 1:32 PM
M/d/yy h:mm:ss a	6/25/98 1:32:19 PM
M/d/yy h:mm:ss a z	6/25/98 1:32:19 PM GMT-05:00

Each date format is specified using a time pattern string where:

y = year
M = month in year
d = day in month
H = hour in military time (24-hour clock)
h = hour in AM/PM (1~12)
m = minute in hour
s = second in minute
E = day in week
a = AM/PM marker
z = time zone
' = escape for text
" = single quote

The count of each letter such as “M” in the time pattern determines the format. For example, three “M” characters indicate that the month is represented as text instead of a number; less than three “M” characters means that the month is represented by a number.

For more information about Java date formats and time pattern syntax, see Sun’s documentation for the **SimpleDateFormat** and **DateFormat** classes:

http://www.javasoft.com/j2se/1.3/docs/api/index.html

Specifying Time Zones

You can specify date values in reference to Greenwich Mean Time (GMT). If a date value omits the time zone, the user's time zone preference is used. Time zones must be entered in the following format:

```
GMT Sign hh:mm
```

where:

- **GMT** = Greenwich Mean Time
- **Sign** = + or –
- **h** = hour in AM/PM (1–12)
- **m** = minute in hour

For example, “GMT–05:00” and “GMT+02:00” are valid time zones.

Do not use three-character codes (such as PST or PDT) to specify time zones. Three-character time zone codes are unreliable because some are used for multiple time zones. Consequently, the Agile PLM server might resolve a three-character time zone code to an incorrect time zone.

aXML and PDX Package Date Formats

For aXML and PDX packages, the Import Wizard supports a relaxed version of the ISO String date format shown below.

yyyy/MM/ddTHH:mm:ssZ

Note	The T and Z characters are required.

Importing Currency Values

Price Line and Supplier objects allow you to import values to currency fields. Currency values can be imported if they are entered as a three-letter ISO 4217 currency code or the full currency name. For example, “USD” and “U.S. Dollar” are both valid currency values that can be imported. “U.S. Dollar (USD)” cannot be imported.

Agile supports many different currencies. The list of available currencies is determined when the Agile PLM system is installed. For more information about ISO 4217 currency codes, see the following Web site:

http://www.iso.org/iso/en/prods-services/popstds/currencycodeslist.html

Currency Symbols and Names

- ADP - Andorran Peseta
- AED - UAE Dirham
- ALL - Bulgarian Lek ALL
- AMD - Armenian Dram
- ANG - Netherlands Antillean Guilder
- AON - New Kwanza
- AOR - Kwanza Reajustado
- ARP - Argentine Peso
- ATS - Austrian Shilling
- AUD - Australian Dollar
- AWF - Aruban Florin
- AWG - Aruban Guilder
- AZM - Azerbaijanian Manat
- BAK - Bosnia - Herzegovina Convertible Mark
- BBD - Barbados Dollar
- BDT - Bangladeshi Taka
- BEF - Belgian Franc
- BGL - Bulgarian Lev
- CRC - Costa Rican Colon
- CUP - Cuban Peso
- CVE - Cape Verde Escudo
- CYP - Cyprus Pound

- CZK - Czeck Koruna
- DEM - Deutsche Mark
- DJF - Djibouti Franc
- DKK - Danish Krone
- DOP - Dominican Peso
- DZD - Algerian Dinar
- ECS - Ecuadorian Sucre
- EEK - Estonian Kroon
- EGP - Egyptian Pound
- ERN - Eritrean Nakfa
- ESP - Spanish Peseta ESP
- ETB - Ethiopian Birr
- EUR - Euro
- FIM - Finland Markka
- FJD - Fiji Dollar
- FKP - Falkland Islands Pound
- FRF - French Franc
- GBP - Pound Sterling
- GEL - Georgian Lari
- GHC - Ghanaian Cedi
- GIP - Gibraltar Pound
- GMD - Gambian Dalasi
- GNF - Guinean Franc
- GRD - Greek Drachma
- GTQ - Guatemalan Quetzal
- GYD - Guyanan Dollar
- HKD - Hong Kong Dollar
- HNL - Honduran Lempira
- HRK - Croatian Kuna
- GTG - Haitian Gourde
- HUF - Hungarian Forint
- IDR - Indonesian Rupiah

- IEP - Irish Pound
- ISL - Israeli Shekel
- INR - Indian Rupee
- IQD - Iraqui Dinar
- IRR - Iranian Rial
- ISK - Icelandic Krona
- ITL - Italian Lira
- JMD - Jamaican Dollar
- JOD - Jordanian Dinar
- JPY - Japanese Yen
- KES - Kenyan Shilling
- KGS - Kyrgyzstani Som
- KHR - Cambodian Riel
- KMF - Comorian Franc
- KPW - North Korean Won
- KRW - South Korean Won
- KWD - Kuwaiti Dinar
- KYD - Cayman Islands Dollar
- KZT - Kazakhstani Tenge
- LAK - Laotian Kip
- LPB - Lebanese Pound
- LKR - Sri Lankan Rupee
- LRD - Liberian Dollar
- LSL - Lesotho Loti
- LTL - Lithuanian Litas
- LUF - Luxembourg Franc
- LVL - Latvian Lats
- LYD - Libyan Dinar
- MAD - Moroccan Dirham
- MDL - Moldovan Leu
- MGF - Malagasy Franc
- MKD - Macedonia Denar

- MMK - Myanmar Kyat
- MNT - Mongolian Tugrik
- MOP - Macau Pataka
- MRO - Mauritania Ouguiya
- MTL - Maltese Lira
- MUR - Mauritius Rupee
- MVR - Maldives Rufiyaa
- MWK - Malawian Kwacha
- MXP - Mexican Nuevo Peso
- MYR - Malaysian Ringgit
- MZM - Mozambican Metical
- NAD - Namibian Dollar
- NGN - Nigerian Naira
- NIO - Cordoba Ora
- NLG - Netherlands Guilder
- NOK - Norwegian Krone
- NPR - Nepalese Rupee
- NZD - New Zealand Dollar
- OMR - Omani Riyal
- PAB - Panamanian Balboa
- PEN - Peruvian Nuevo Sol
- PGK - Papua New Guinea Kina
- PHP - Philippine Peso
- PKR - Pakistan Rupee
- PLZ - Polish Zloty
- PTE - Portuguese Escudo
- PYG - Paraguay Guarani
- QAR - Qatari Riyal
- ROL - Romanian Leu
- RUR - Russian Ruble
- RWF - Rwanda Franc
- SAR - Saudi Riyal

- SBD - Solomon Islands Dollar
- SCR - Seychelles Rupee
- SDD - Sudanese Dinar
- SEK - Swedish Krona
- SGD - Singapore Dollar
- SHP - St. Helena Pound
- SIT - Slovenian Tolar
- SKK - Slovak Koruna
- SLL - Sierra Leone's Leone
- SOS - Somali Shilling
- SRG - Surinam Guilder
- STD - Sao Tome Dobra
- SVC - El Salvador Colon
- SYP - Syrian Pound
- SZL - Swazi Lilangeni
- BHT - Thai Baht
- TJR - Tajik Ruble
- TMM - Turkmenistan Manat
- TND - Tunisian Dinar
- TOP - Tongan Pa\'anga
- TLR - Turkish Lira
- TTD - Trinidad and Tobago Dollar
- TWD - New Taiwan Dollar
- TZS - Tanzanian Shilling
- UGX - Uganda Shilling
- USD - U.S. Dollar
- UYU - Uruguayo Peso
- UZS - Uzbekistan Som
- VEB - Venezuelan Bolivar
- VND - Viet Nam Dong
- VUV - Vanuatu Vatu
- WST - Samoa Tala

- XAF - Central African Franc
- XCD - East Caribbean Dollar
- XPF - CFP Franc (French overseas possessions)
- YER - Yemeni Rial
- YUN - Yugoslav New Dinar
- ZAR - South African Rand
- ZMK - Zambian Kwacha
- ZWD - Zimbabwe Dollar

Importing Money Values

The money datatype is a compound datatype that includes a numeric value and a currency code, such as "USD" for U.S. Dollars. Import supports both money value and currency. The user preferred currency is chosen if currency is not specified in source file. If the source file is a delimited text file or an Excel file, money values can be combined with currency code, in this format USD:100, or separate money value and currency code in two fields. The Import Wizard rejects non-numeric money values. If the source file is:

- An aXML file, the Import Wizard loads the currency code from the source file.
- A PDX package, the Import Wizard loads the user specified preferred currency, because there is no currency code in the source PDX file.

To change or view your currency settings:

- In Web Client, select the My Settings button  **> Preferences > Edit**.
- In Java Client, select **Settings > Current User > Preferences**.

Be sure to save changes when applicable.

Importing Mass Values

Several Product Governance & Compliance objects, including items, have Mass fields. Mass fields have both a numeric value and a unit of measure, for example, grams, kilograms, ounces, or pounds. The Import Wizard allows you to import both the numeric portion of a Mass value and the unit portion. When you import Mass values, make sure you map both the *Mass* and *Mass-measure* fields.

The default standard unit for Mass fields is Gram, although your Agile PLM administrator can choose a different standard unit.

Importing Geographical Locations

Customer, Supplier, and Manufacturer objects all have country and region fields. You must specify valid country and region names in your source data. Otherwise, the specified values are not imported.

To see valid country names and region names in Java Client:

1. Click the **Admin** tab.
2. Choose **Data & Workflow Settings > Product Cost Management > Ship-To Location**.
3. Click the **New** button.
4. Click the **Continent** list, and select a continent.
5. Click the **Country** list, and select a country.
6. Click the **Province/Region/State** list, and select a region.

Importing Values to Dynamic Lists

The Import Wizard supports importing values to list fields that use dynamic lists. Dynamic lists contain a selection of values that are updated at run time based on data that was already added to the system.

The Items, Changes, Users, and Suppliers lists are examples of dynamic lists. Because dynamic lists can contain thousands of value objects, you cannot enumerate values for them.

The Import Wizard can't validate whether a dynamic list requires upper-case or lower-case values before sending the data to the server. Consequently, any list values that are the wrong case are rejected.

Note	Although Web Client displays the Supplier field in the form *supplierName*(*supplierNumber)*, because the Suppliers list is a dynamic list, you can import data to this field using either the supplier number or the composite form, supplierName(supplierNumber).

Importing Cascading Lists

You can configure an Agile PLM list field to be and behave as a cascading list. A cascading list presents its values in multiple hierarchical levels, letting you drill down to a specific value in the hierarchy.

To import values into a cascading list field, make sure you use the correct delimiter character to separate each level. The Cascade Delimiter Character preference specifies the character used to delimit cascading list values. For information to set the Cascade Delimiter Character preference, see Setting Parsing and Validation Options. The default setting for the Cascade Delimiter Character preference is vertical bar (|).

The following example shows source data that includes cascading list values for a Page Two field called *Regional Contact*, which has three levels.

Part Number	Regional Contact
P10011	Central|Chicago|Jeff Whaley
P10012	Western|Los Angeles|Jason Wong
P10013	Southern|Atlanta|Hsing-Hua Zhang
P10014	Northern|Boston|Leslie Ickes

Using BOM Reference Designators

Reference designators are commonly used in the electronics industry as a labeling system to refer to components. If your company uses reference designators, you can use the **BOM > Ref Des** field to assign and edit reference designators.

You can specify reference designators in several ways:

- Delimited using comma (,), semicolon (;), or vertical bar (|). By default, the Import Wizard uses a comma for the reference designator delimiter. To change the delimiter, see Setting Business Rule Options.
- Individually (**R1**,**R2**,**R3**) or compressed, using the specified range character (**R1-3** *or* **R1-R3**). By default, the Import Wizard uses a hyphen for the reference designator range character. To change the range character, see Setting Business Rule Options.
- Uppercase, lowercase, or mixed case (they will be converted to whatever format is specified by the Agile PLM administrator).
- Using continuation rows if there are too many reference designators to fit in one cell. All other cells must be left empty in these rows.

If you have few reference designators, you can enter them one by one (for example, **R1**,**R2**,**R3**).

To add groups of reference designators that begin with different letters, separate each group with a parse character, usually a comma. For example, to enter the 10 designators A1, A2, A3, B4, B5, B6, B7, C8, C9 and C10 you would type:**A1-3,B4-7,C8-10**

Depending on how your Agile database has been configured, Web Client may automatically contract ranges of reference designators. If you enter **1,2,3,4,5**, when you press Tab, the Ref Des field shows 1-5.

If your Agile database has been configured to expand reference designators, then reference designators connected by hyphens (or another specified range character) are expanded when they are imported into the Agile database. For example, **R1-5** becomes **R1,R2,R3,R4,R5**.

Reference designators that end in a letter (for example, **R1a,R2a,R3a**) must be entered individually. For more information about how Agile Import handles reference designator ranges, see Reference Designator Ranges.

Reference Designator Ranges

The following rules determine how ranges of reference designators are treated by the Import Wizard. If a reference designator does not qualify for expansion, the Import Wizard treats the range as one reference designator.

- The two reference designators in a range statement must end in a numeric character to qualify for expansion. If the last value in a reference designator string is a text character, it does not qualify for expansion.

  Examples:
  A202-A210 qualifies for expansion.
  A202-A210a does not qualify for expansion.
  A202a-A210a does not qualify for expansion.

- If two reference designators in a range statement have prefixes, they must have the same prefix to qualify for expansion. Prefixes must be in **<***CHAR***>** format.

  Examples:
  RB202-RB210 qualifies for expansion.

  RB202-RC210 does not qualify for expansion.

- If only the first reference designator in a range statement has a prefix, then the range qualifies for expansion.

  Example:
  RB202-210 qualifies for expansion.

- If neither reference designator in a range statement has a prefix, then the range qualifies for expansion.

  Example:
  202-210 qualifies for expansion.

Using Leading Zeros in Reference Designator Ranges

If your Agile database has been configured to remove leading zeros in the numeric portion of reference designators, you should avoid using leading zeros in reference designator ranges in your import file. For example, the Import Wizard may parse R0203-R0225 as R203-R225, removing the leading zeros.

In Java Client, you can click the Admin tab and choose **Server Settings > Preferences >** Reference **Designators Allow Range Expand Collapse** to see whether reference designators can be expanded and collapsed on your Agile PLM system. If this preference is set to **No**, all reference designator range behavior is turned off. This prevents leading zeros from being removed from reference designators, but it also causes each reference designator range, such as R0203-R0225, to be treated as one reference designator. In this case, to enter reference designators with leading zeros, you must enter them individually and not as ranges.

Note	For information about how to change the Reference Designators Allow Range Expand Collapse preference setting in Java Client, contact Agile Technical Support http://www.oracle.com/agile/support.html.

Importing Reference Designators from aXML and PDX Packages

To ensure that reference designator fields in aXML and PDX packages are parsed correctly when they are imported, follow these guidelines:

- Use a comma to separate multiple reference designators (R1,R2,R3).
- Use a hyphen to indicate a range of reference designators (R1–R3).

Guidelines for Excel and Delimited Text Files

Agile PLM will export all delimited text files (CSV). However, to import table files, including the special table exported files of user group table of user object, user table of user group objects, and price line table of price object files, you must specify the header row and the last row. Otherwise, Agile PLM will not export these files.

Make sure Microsoft Excel files and delimited text files conform to the following structural guidelines before importing them:

- Although a Microsoft Excel workbook can contain multiple sheets, you can import data from only one sheet at a time. Therefore, set up Excel sheets appropriately.
- Numeric values in Microsoft Excel files are converted to either integers or decimals before being imported. If you want an integer to be treated as a decimal, enter the value as text by preceding it with a single quotation mark. For example, to import the number 1.0 instead of 1, type **'1.0** in the Microsoft Excel cell.
- Formulas in Microsoft Excel files must calculate to a numeric value. Otherwise, the Import Wizard imports the formula string. If your Microsoft Excel file has formulas that calculate to nonnumeric values, you can save the file to a .CSV file to ensure that the formula values will be imported correctly.
- Column headers cannot be blank. For example, in a comma-separated file the following header row would be invalid due to the blank header between Number and Description:

  Number, ,Description,Product Lines,Category

- The first row of import data, which is not necessarily the first row in an Excel file, must be the "header" row, which contains field names. When you select the source file, you can click **Configure** to set the location of the header row.
- Field names in the header row must be unique. Duplicate field names are not allowed. If the source file contains multiple data sections, you must set the Header and Last rows to specify the data that you want to import. This is applicable to the Table Format Export. When you select the Table Format Export, data in Page one, Page Two and Page Three are exported to one row in the exported Excel/CSV file.
- Fields in the header row must not contain carriage returns or linefeed characters. If they do, the Import Wizard will not parse the file correctly. For more information, see Removing Carriage Returns and Linefeed Characters on page 25.
- The header row cannot end with a delimiter character, such as a comma.
- Rows that follow the header row must contain data. There should not be empty rows between

rows of data.

- Any rows of data that you do not want imported into the Agile database must be removed.
- All fields that are required for the particular object type you are importing should contain data.
- Fields must use the same delimiter character. For example, for a comma-separated values file, each field should be separated by a comma.
- Your import data must conform to the maximum lengths specified for each Agile field by the Agile PLM administrator. Otherwise, the Import Wizard's **Length Validation** preference will either reject or truncate the value.
- An entry for a MultiList field (for example, the Product Line(s) field on the Title Block tab) must delimit separate list values. The default MultiList delimiter is a comma; you can also choose to use a vertical bar (|) or semicolon (;). For more information, see Setting Parsing and Validation Options.

  This is an example of a comma-delimited list of values for a MultiList field:

  Scorpio,Taurus,Capricorn

  Note If you are importing user names into a Multilist field, you must use the following format:
  Lastname,spaceFirstname;spaceLastname,spaceFirstname;spaceLastname; and so on.

- Money fields must contain numeric values. They should not include currency codes. Import supports currency codes and the user's preferred currency is selected if the currency code is not specified.
- For BOMs, parent item rows must be grouped contiguously. That is, all BOM components for a parent item should appear in one group of rows.
- For BOMs, the maximum length of individual reference designators is 19 characters.
- For BOMs, reference designators can continue on subsequent rows. On each reference designator continuation row, the only field with data should be the reference designator field. Other fields should be blank.
- For BOMs, the value in the Quantity field should equal the number of reference designators. Otherwise, the Import Wizard may display a warning message when you import the data.
- For delimited text files, enclose text values within text qualifier characters (for example, quotation marks). Qualifying a text field allows the field's delimiting character, such as a comma, to be used within the field's text. In the following example, **21" Monitor, Tilt Pedestal** is the item's description, which has both a comma (the field delimiter) and a quotation mark within the text:

  Number,Description,Rev,BOM Component Number,QPA

  170-50,"21"" Monitor, Tilt Pedestal",A,172-92,1

Removing Carriage Returns and Linefeed Characters

To avoid file parsing errors when importing Excel files or delimited text files, make sure the header fields do not contain carriage returns or linefeed characters. Such characters may be hard to spot in a delimited text file, but you can easily find them and remove them in Excel.

To find and remove carriage returns or linefeed characters from header fields in Excel:

1. Choose the **Select All** button. This is the gray rectangle in the upper left corner of the worksheet where the row and column headings meet.
2. Choose **Format > Row > AutoFit**.

   Any header fields that have carriage returns or linefeed characters will have more than one line of text. In the following figure, fields A1 and C1 both have carriage returns.

	A	B	C	D
1	Item Number	Revision	Part Description	Part Type

3. Delete any extra carriage returns or linefeed characters in the header.
4. Save the file.

Sorting BOM Components

Before importing a BOM from an Excel file or a delimited text file, make sure all BOM components for a parent item are grouped together in contiguous rows. If BOM components for a parent item are listed on noncontiguous rows, the Import Wizard imports only the last group of BOM components for that parent item.

For example, the following BOM data is incorrect because the rows 4 and 5 are out of order.

	A	B	C
1	**Parent Item Number**	**BOM Item Number**	**Part Description**
2	P001	P010	CON,HDR,2X4,M,.1,R,P,L,NS,TH
3	P001	P011	CLP,GND,PLN,R/S
4	P002	P012	RES,10K,1/10W,.1%,THNFLM,0805
5	P002	P013	CAP,470UF,20%,25V,AL,10X12.5
6	P001	P014	DIODE,SKY,30V,80A,MBRS330,SM
7	P001	P015	RES,2.7K,1/16W,5%,THKFLM,0603

This is the BOM data after it is correctly sorted. BOM components for P001 are now grouped together.

	A	B	C
1	**Parent Item Number**	**BOM Item Number**	**Part Description**
2	P001	P010	CON,HDR,2X4,M,.1,R,P,L,NS,TH
3	P001	P011	CLP,GND,PLN,R/S
4	P001	P014	DIODE,SKY,30V,80A,MBRS330,SM
5	P001	P015	RES,2.7K,1/16W,5%,THKFLM,0603
6	P002	P012	RES,10K,1/10W,.1%,THNFLM,0805
7	P002	P013	CAP,470UF,20%,25V,AL,10X12.5

To sort the BOM, open the source file in Microsoft Excel and sort the rows in ascending order by the **Parent Item Number** column.

Note BOMs in aXML and PDX packages are automatically sorted appropriately. However, an XML file declares its encoding within the file. Therefore, you don't need to specify file encoding when you import data from aXML or PDX packages..

Importing Data from Microsoft Excel Files

Microsoft Excel is a popular spreadsheet program, which lets you format data in a matrix of rows and columns. The Import Wizard supports Microsoft Excel 2000, 2002, and 2003 versions.

Excel workbook files, which have an XLS filename extension, can have multiple sheets per file. Make sure you specify the sheet to import and the location of the header row on that sheet.

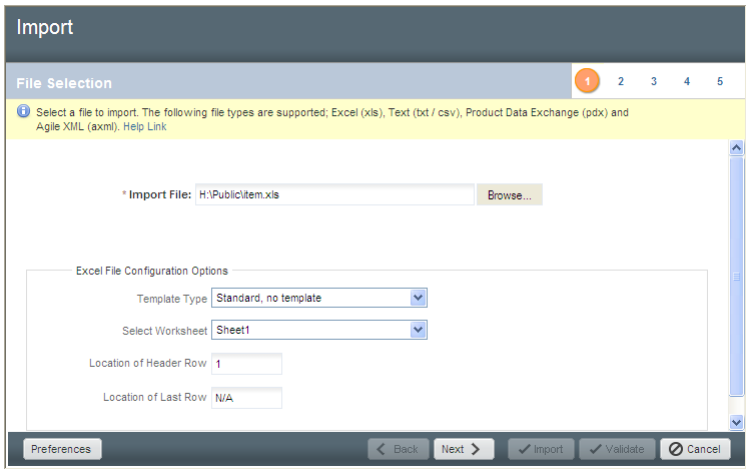
To import data from an Excel file:

1. In Web Client, choose **Tools and Settings > Import**.

   Note The file must be a valid Excel 2000, 2002, or 2003 file.

2. Specify the import source. Select **File**. Type the file name, or click **Browse** to select it.

The Excel configuration options appears. You can continue with the default configuration settings or specify template type, worksheet, and the location of the header or last row.



3. When you are finished, click **Next** to proceed to the next Wizard step.

   The Specify File Content dialog opens

4. Select the type of object to import, then click **Next** to proceed to the next step of the Wizard.

   Note If the source file is Excel (level template), aXML ,or PDX, you can select the mapping file during the import process, create one, or use a default mapping.

5. Select a change order and a mapping file.

   Note A change order is required when you use Redlining mode to import. For more information about redlining, see Using Redlining or Authoring Mode on page 80.

6. Select or create a transformation definition file (optional). Click **Next**.
7. Review your import settings, then click **Import** to begin importing.

Editing Delimited Text Files in Excel

If you open a delimited text file in Excel, all cells use the General number format by default. This causes large numbers, such as item numbers and manufacturer part numbers, to be converted into scientific notation (for example, 8.1E+22). You can fix that problem by formatting the cells to use Text format.

To format numbers as text in Excel:

1. Select the cells you want to format.
2. Choose **Format > Cells**. The Format Cells dialog box appears.
3. Click the **Number** tab.
4. In the **Category** list, select Text, and then click **OK**.
5. If there are any cells that still display in scientific notation, click each cell, press F2, and then press Enter to re-enter the number as text.

After you format cells to use Text format, save the file as an Excel (XLS) file to preserve the formatting. If you save the file as a CSV file, the next time you open it in Excel the sheet will again use the General number format.

Importing a Delimited Text File into Excel

If a delimited text file has many item numbers or manufacturer part numbers that need to be reformatted as text, it may be more practical to import the file into a new Excel workbook. Excel's Text Import Wizard allows you to format the columns appropriately.

To import a delimited text file into an Excel workbook:

1. Open a new workbook.
2. Choose **Data > Get External File > Import Text File**.
3. Choose the file and choose **Import**. The Text Import Wizard appears.
4. Choose Delimited. Click **Next**.
5. In the **Delimiters** box, make sure only Comma is checked. Click **Next**.
6. In the **Data Preview** box, select columns to change the data format. For example, select the Item Number or Manufacturer Part Number column, and click Text in the **Column Data Format** box.
7. Click **Finish**.
8. Select Existing Worksheet, and click **OK**.

How the Import Wizard Parses Excel Data

When you select an Excel file to import, the Import Wizard parses the data into a delimited text format before importing it. That is why many of the guidelines for importing delimited text files also apply to Excel files. The parser handles the following types of Excel values specially:

- **Number format —** Numeric values in Excel files are converted to either integers or decimals before they are imported.
- **Date format —** The parser supports native Excel date formats as well as any custom date formats that contain all three of the following identifiers: **d m yy**. For example, **yyy/mm/dd** and **dd-MM-YYY hh:mm** are supported date formats, but **mm/yy** is not.
- **Currency format —** The parser treats any cells containing currency values as numbers. Therefore, a cell with the value $9.99 is treated as 9.99.

Specifying Excel File Configurations

When you select an Excel file to import, you can specify how the file is configured. This allows the Import Wizard to identify the template you're using, the worksheet to import, and the header row where data starts.

To specify the configuration of an Excel file:

1. Enter the path of the file, or click **Browse** to select it.

   The Excel Workbook Configuration options appears.
2. Specify the template type (Level Template, Parent-Child Template, or Standard).
3. Specify the sheet to import. The default is the first worksheet in the Workbook.
4. Enter the location of the header row and last row. The default is 1.
5. If necessary, type the location of the last row. The default value is "N/A".

Note The Import Wizard maintains Excel file settings for the current import session only.

Importing Data from Delimited Text Files

Delimited text files are flat text files where each field of data is delimited by a special character, such as a comma, tab, or vertical bar. You can create delimited text files in a text editor. You can also export delimited text files using many applications, including Microsoft Excel and other spreadsheet programs.

Caution A delimited text file must have a CSV or TXT filename extension. Otherwise, the file is invalid and cannot be imported.

Generally, text files allow you to import only one type of Agile object at a time. However, when you import BOMs, AMLs, or price lines from a text file, you can also import the parent items or prices at the same time.

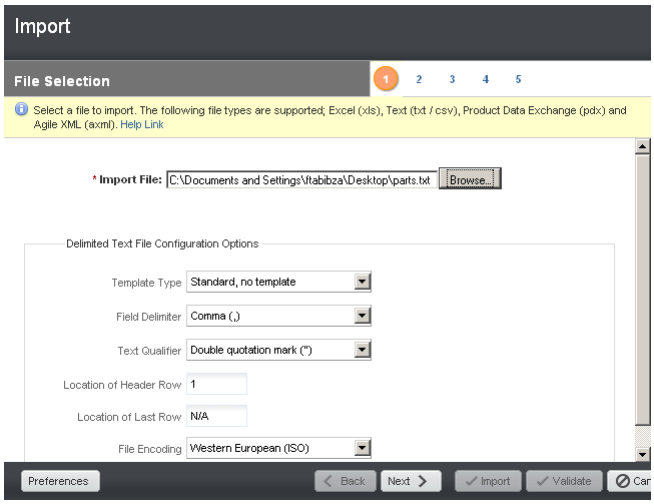
Text files should have a header row. If you are importing a text file, make sure you specify the location of the header row.

To import data from a text file:

1. In Web Client, choose **Tools and Settings > Import**.

   Note The filename must have one of the following extensions: CSV or TXT.
2. Click **Browse** to locate and select the import file.

The Import Wizard displays the default configuration options for delimited text files. You can continue with the default settings and if necessary, specify template type and other settings. For procedures, see Specifying Delimited Text File Configurations on page 30.



3. Click **Next** to proceed to the next Wizard step.
4. Select the type of object to import, then click **Next**.
5. Select a change order and a mapping file.

   Note A change order is required when you use Redlining mode to import. For more information about redlining, see Using Redlining or Authoring Mode on page 80.

6. Select or create a transformation definition file (optional). Click **Next**.
7. Review your import settings, then click **Import** to begin importing.

About Delimited Text Files Saved by the Export Wizard

Agile's Import Wizard doesn't support delimited text files saved by the Export Wizard, mainly because the Export Wizard adds a header section to the file and includes multiple tables in a flat format. You can reformat the data to import it successfully.

Specifying Delimited Text File Configurations

When you select a delimited text file, you can specify how the file is configured. This allows the Import Wizard to identify the template you're using, the header row, field delimiter, and text qualifier used in the file.

To specify the configuration of a text file:

1. Specify the template type (Level Template, Parent-Child Template, or Standard).
2. Choose the field delimiter. The default is Comma (,).
3. Choose the text qualifier. The default is Double quotation mark (“).
4. Enter the location of the header row. The default is 1.
5. If necessary, enter the location of the last row. The default value is "N/A".
6. Choose the file encoding type. The default is based on your locale. For the U.S. (English) locale, the default is ISO-8859-1, which includes all US and Western European characters. For Japan and China, the default encoding is Big5 and SJIS, respectively.

> **Note** The Import Wizard maintains delimited text file settings for the current import session only.

Importing Data from PDX Packages and aXML Files

The Import Wizard supports importing data from two different XML formats:

- **Product Data eXchange (PDX)** — A standardized XML format for representing structured product content. It provides a means for partners in the e-supply chain (OEMs, EMS providers, and component suppliers) to exchange product content and changes (BOMs, AMLs, ECRs, ECOs). You can import items, BOMs, manufacturers, manufacturer parts, AMLs, and attachments from a PDX package. You can create PDX packages in the Web Client. In addition, Agile provides a free, Web-based application called Agile eXpress that lets you create and view PDX packages.

  For more information about PDX, including a link to the DTD, see following Web page: http://webstds.ipc.org/2571/2571.htm

- **Agile XML (aXML)** — Agile XML format is an XML representation of Agile's business schema. aXML contains all product content managed in Agile including items, change details, manufacturer information, cost, drawings and other files. As a representation of schema elements across all Agile products, aXML will evolve with Agile's business schema over time. Agile Content Service (ACS) and Agile Integration Services (AIS) both export Agile data in aXML format. Agile does not provide a separate tool to view aXML packages. However, you can open the XML file contained within an aXML package in any XML viewer. For example, Internet Explorer can be used to view XML files. For the latest aXML schema, check the following Web site:http://support.agile.com/misc/axml/2009/06.

> **Note** The Import Wizard does not support importing changes or packages, even though these can be contained within a PDX package or an aXML file.

PDX packages that you plan to import must adhere to the following guidelines:

- The embedded XML file contained in a PDX package must be well formed and meet the structural requirements specified by PDX DTD Revision 1.0. (If you have a PDX 0.7 file, you can open it in Agile eXpress 8 and save it as a PDX 1.0 file.)
- The PDX package must contain values for attributes that correspond to Agile key fields.
- The PDX package must not contain multiple revisions of the same item. If you try to import

items from a PDX package with multiple revisions, the Import Wizard rejects the file.

- The Import Wizard supports PDX packages that use Agile's multi-site PDX 1.0 implementation. It does not support multi-site PDX implementations from other vendors.

To import data from a PDX package or an aXML file:

1. In Web Client click **Tools and Settings > Import**.
2. Type the filename, or click **Browse** to access the file.

   Note PDX packages have a pdx extension, and aXML files have an axml extension.

3. Click **Next**.

   The Specify File Content dialog opens and lists a set of options (contents to import) depending on the file type (aXML or PDX).

4. Select one or more types of objects to import and then click **Next**.

   Note The **Preferences** settings are optional. For descriptions and procedures to set preferences and perform the remaining step, see Setting Import Preferences on page 43.

5. Select a change order and a mapping file. Use the default PDX mapping. Use the default PDX or default aXML mapping. You can edit the default mapping to add or remove field mappings. You can also select or create a transformation definition file (optional). Click **Next**.

   Note A change order is required when you use Redlining mode to import. For more information about redlining, see Using Redlining or Authoring Mode on page 80.

6. Review your import settings. Click **Import** to begin importing.

Objects that You Can Import from PDX Packages

You can import the following objects from a **Product Data eXchange Package** file:

- Manufacturer
  - Manufacturer only
  - Manufacturer Attachment
- Manufacturer Part
  - Manufacturer Part only
  - Manufacturer Part Attachment
- Item
  - Item only
  - Bill of Material
  - Approved Manufacturer List
  - Sites
  - Item Attachment

Objects that You Can Import from aXML Files

You can import the following objects from an **aXML** file:

- Manufacturer
  - Manufacturer only
  - Relationships
  - Manufacturer Attachment
- Manufacturer Part
  - Manufacturer Part only
  - Composition
    - Bill of Substances
  - Specifications
  - Relationships
  - Approved Supplier List
  - Manufacturer Part Attachment
- Item
  - Item only
  - Composition
    - Bill of Substances
  - Specifications
  - Approved Supplier List
  - Bill of Material
  - Approved Manufacturer
  - Sites
  - Item Attachment
  - Relationships
- Substance
  - Composition
  - Substance Attachment
- Declaration
  - Items
  - Manufacturer Parts
  - Part Groups
  - Item Bill of Substances
  - Manufacturer Part Bill of Substances
  - Part Group Bill of Substances
  - Specification

- Declaration Attachment

- Item
  - Bill of Material
  - Composition and Bill of Substances
  - Approved Manufacturer List
  - Sites
  - Approved Supplier List
  - Specifications
  - Relationships
  - Item Attachment
- Published Price
  - Published Price only
  - Published Price Lines
  - Price Attachment
- Quote History
  - Quote History only
  - Quote History Lines
- Part Group
  - Part Group only
  - Approved Supplier List
  - Relationships
  - Parts
  - Specifications
  - Part Group Attachment
- User Group
  - User Group only
  - Users
- User
  - User only
  - User Group
- Product Service Request (PSR)
  - PSR only
  - Related PSR
  - Attachments
  - Affected Items
  - Relationships

- Quality Change Request (QCR)
  - Quality Change Requests only
  - Relationships
  - Affected Items
  - Attachments
- Declaration
  - Declaration only
  - Manufacturer Parts
  - Item Bill of Substances
  - Part Group Bill of Substances
  - Declaration Attachment
  - Item
  - Part Groups
  - Manufacturer Part Bill of Substances
  - Specification
- Substance
  - Substance only
  - Substance Attachment
  - Composition
- Specification
  - Substances only
  - Substances
  - Specification Attachment

Using Templates to Import Data

An import template is a predefined format you can use to import items, BOMs, and AMLs from delimited text files or Microsoft Excel files. If you format your data according to one of the provided templates, the import process is simple. Once you specify the source file and select the default field mappings, you can click **Import** to begin importing.

The Import Wizard provides the following templates:

- **Level Template**
  - **BOM Only Level Template** — Represents the hierarchical levels of a BOM by specifying a numeric Level column. The relationship between a parent item and its components is set by the numeric level. Approved manufacturers are not included with this template.
  - **BOM & AML Level Template** — Represents the hierarchical levels of a BOM by specifying a numeric Level column. The relationship between a parent item and its components is set by the numeric level. This template includes approved manufacturers for each part.

- **Parent-Child Template** — Represents the relationship between a BOM and its components by Parent Number and Child Number columns.

If you use the BOM & AML Level Template or Parent-Child Template to import AMLs, remember that manufacturers listed in the AMLs must already exist in PLM system. Otherwise, the AML is rejected.

To import data using an import template:

1. Format the data appropriately using one of the templates.

   Note Make sure the source file includes a header row and at least one row of data.

2. Start the Import Wizard.
3. On the **Import Source** page, type the file path or click **Browse**.
4. For **Template Type**, select **Level Template**, or **Parent-Child Template** from the list.
5. Select other configuration options if necessary.
6. Select a change order and a mapping file. Use the default mapping. Click **Next**.

   Note A change order is required when you use Redlining mode to import. For more information about redlining, see Using Redlining or Authoring Mode on page 80.

7. Click **Import** to begin the import operation.

About Level Templates

There are two level templates:

- **BOM Only Level Template**
- **BOM & AML Level Template**

They both share the same “Template Type” option. If the source doesn't include any AML data, Import will choose the BOM Only Level Template type. Otherwise, BOM&AML Level Template is chosen.

In addition, Item supports the export BOM&AML tables as Level Template. The format is similar to the previous Level Template. Field names in the Admin setting are dynamic and are not fixed attribute names as before. However, the previous format with fixed attribute names is also supported.

The source file for Level Templates can include the fields shown in the table below.

Important The column headers in your source file must match the specified field names exactly as they appear in the table below in English. You can not localize these field names.

Category	Field Name	Required
Item	Level	Yes
	Item Number	Yes
	Description	
	Type	
	Sites	
	Revision	
	Product Line	
	Lifecycle Phase	
	Size	
	Category	
	Effectivity Date	
	Commodity	
BOM	Quantity	Yes
	Find Number	
	Reference Designator	
	BoM Notes	
	BoM Site	
AML	MFR Name	Yes
	MFR Part Number	Yes
	MFR Part Site	
	Preferred Status	
	Reference Note	

Note:

- The level for the first record must be zero or any non-numeric value. Child items have a level other then zero, such as 1, 2, 3, and so on. After the first record, the Import Wizard ignores any non-numeric characters in the Level column.
- If you are using the BOM Only Level Template, do not include AML fields in your source file. The MFR Name and MFR Part Number fields are not required for BOM Only Level Template.

The following figure shows an example of level template data for items and BOMs.

	A	B	C	D	E	F
1	**Level**	**Item Number**	**Description**	**Revision**	**Sites**	**Quantity**
2	0	B0233897C	NT6X01AD XPM FRAME	A	San Jose	1
3	1	910-134-B	CBL BAYST TR REDUND	C	San Jose	1
4	1	960-460-C	TESTED TOKEN RING C(	C	Austin	1
5	2	920-481-E	BAYSTACK TOKEN RING	A	Taipei	1
6	3	111-063	IC,74HCT00,NAND,4,2-IN,	B	Taipei	1
7	3	111-042	IC,74HCT123,RETRIG MO	A	Hong Kong	2
8	3	111-170	IC,74ABT245,8,XVCR,SO2	B	San Jose	2

When the level template data includes AML information, each item can have multiple AML rows. The item information does not need to be repeated for each AML row. The following figure shows an example of level template data for items, BOMs, and AMLs.

	A	B	C	D	E	F	G	H	I
1	**Level**	**Item Number**	**Description**	**Revision**	**Sites**	**Quantity**	**MFR Name**	**MFR Part Number**	**Preferred Status**
2	0	B0233897C	NT6X01AD XPM FRAME	A	San Jose	1	ADVANCED CABLE TECHNOL(	910-073-B	Preferred
3	1	910-134-B	CBL BAYST TR REDUND	C	San Jose	1	JPM COMPANY	910-134-B	Preferred
4	1	960-460-C	TESTED TOKEN RING C(	C	Austin	1	SOLECTRON TECHNOLOGY IN	960-460-C	Preferred
5	2	920-481-E	BAYSTACK TOKEN RING	A	Taipei	1			
6	3	111-063	IC,74HCT00,NAND,4,2-IN	B	Taipei	1	TEXAS INSTRUMENTS WALTH	SN74HCT00D	Preferred
7							PHILLIPS ELECTRONICS	74HCT00D	Preferred
8							MOTOROLA INC	MC74HCT00AD	Alternate
9							HARRIS SEMICONDUCTOR	CD74HCT00M	Alternate
10							FAIRCHILD SEMICONDUCTOR	MM74HCT00M	Alternate
11	3	111-042	IC,74HCT123,RETRIG MC	A	Hong Kong	2	PHILLIPS ELECTRONICS	74HCT123D	Preferred
12							HARRIS SEMICONDUCTOR	CD74HCT123M	Alternate
13	3	111-170	IC,74ABT245,8,XVCR,SO	B	San Jose	2	TEXAS INSTRUMENTS WALTH	SN74ABT245BDW	Preferred

Using the Parent-Child Template

To use the parent-child template, the source file can include the following fields. Column headers in your source file must match the specified parent-child template field names as shown in the table below.

Important The column headers in your source file must match the specified field names exactly as they appear in the table below in English. You can not localize these field names.

Category	Field Name	Required
Item	Parent Number	Yes
	Parent Revision	
	Parent Type	
	Child Number	Yes
	Child Revision	
	Child Type	
	Description	
	Sites	
	Product Line	
	Lifecycle Phase	
	Size	
	Category	
	Commodity	
BOM	Quantity	Yes
	Find Number	
	Reference Designator	
	BoM Notes	
	BoM Site	
AML	MFR Name*n*[2]	Yes
	MFR Part Number*n*[2]	Yes
	MFR Part Site*n*[2]	
	Preferred Status*n*[2]	
	Reference Note*n*[2]	

Note:

- Parent Revision and Child Revision fields are imported only if both are included in the source file.

- To include multiple manufacturer parts per item, expand the row horizontally. That is, add separate columns for each manufacturer part. Append a number to the manufacturer part field names from 1 to *m*, where *m* is the total number of manufacturer parts in the item.

The following figure shows an example of parent-child template data for items and BOMs.

	A	B	C	D
1	**Parent Number**	**Child Number**	**Quantity**	**Description**
2	70965G01	70964-01	1	PP PWB-FAB-REG SDB 1PNL FL 6LYR PTH
3	70965G01	70963-00	0	SCHEMATIC: BRANCH NODE SERIAL DATA BOARD
4	70965G01	70998-00	0	OUTLINE DWG PEG SDB
5	70965G01	71495-00	0	SDB,MECH ASSY DWG
6	70965G01	60454-51	2	RA IC-SMD 74F85 4BIT * COMPAR SO16
7	70965G01	60312-51	3	RR IC-SMD 74HC161 SYNC * CNTR SO16
8	70965G01	53013-54	1	RR IC-SMD 74HC4060 ASYNC * CNTR SO16
9	70965G01	71137G07	1	IC HW PROGRAMMED

The next example shows a parent-child template data for items, BOMs, and AMLs. Multiple manufacturer parts are specified for each component, and revision information is included in the optional Parent Revision and Child Revision columns.

	Parent Number	**Child Number**	**Description**	**Quantity**
	AX100	AXA100	NT0X9501 CABLE BRAI	1
	AX100	AX200	NT0X9504 BUSS BAR A	1
	AX100	AXA200	NT6X0162 PWR CABLE	1
	AX100	AXA300	NT0X9538 CABLE BRAI	11
	AX200	AXA400	STANDOFF INSULATOR	3
	AX200	AX300	MOUNTING BRACKET K	3
	AX300	AX400	SCREW .250-20X.375X	6
	AX400	AXA500	WS FL .2581D,.5620D	3

	MFR Name1	**MFR Part Number1**	**MFR Name2**	**MFR PartNumber2**	**MFR Name3**	**MFR PartNumber3**	**Parent Revision**	**Child Revision**
	JPM COMPANY	910-134-B					A	A
	SOLECTRON TECHNOLO	960-460-C	TEXAS INSTRUME	SN74HC00D	PEMSTAR	0323-001	A	D
	HARRIS SEMICONDUCTO	CD74HCT123M					A	A
	TEXAS INSTRUMENTS W	SN74ABT245BDW					A	A
	FAIRCHILD SEMICONDU	MM74HCT00M	PHILLIPS ELECTR	74HCT123D	PEMSTAR	0323-002	D	C
	PHILLIPS ELECTRONICS	74HCT00D					D	D
	MOTOROLA INC	MC74HCT00AD					D	A
	HARRIS SEMICONDUCTO	CD74HCT00M					A	C

Grouping and Sorting Parent Items

Before importing parent-child data, make sure all parent items are grouped together in contiguous rows. If the same parent item is listed on noncontiguous rows, the Import Wizard imports only the last group of component parts for that parent item. This requirement to presort the parent-child data is similar to the way BOM data in Excel files and text files must be sorted. For more information, see Sorting BOM Components on page 25.

Importing Objects into Relationship Tables

You can import all Agile supported objects into relationship tables of Item, Manufacturer, Manufacturer Part, and Part Group objects. In addition, you can insert all flex fields and relationship rules via Import. For more information about Relationship tables, refer to *Getting Started with Agile PLM.*

Note Import always selects the **complete replace** mode. That is, Import will always replace the existing relationship data with the relationship table data of the imported source file.

Chapter 3

Setting Import Preferences

This chapter includes the following:

About Preferences

The Import Wizard has several preference setting options that you can set from any step in the Wizard. These preferences set the behavior of the Import Wizard while importing data. Import Wizard preferences persist as long as you are in an active Agile PLM client session, but they are not permanently saved with the user's profile when the user exits the session.

To set import preferences:

1. In Web or Java Client, open the Import Wizard and select the Preferences button in the bottom left corner of the Import Wizard.

   Note You can set these import preferences before or after selecting the import file. For these to persist in future sessions, you must check the **Persist preference settings to be shared by other users** check box. See Enabling a User to Save (Persist) Preference Settings on page 56.

   The Import Preference dialog appears.

2. Select one of the following preferences groups from the list: **Parsing and Validation Options**, **Business Rule Options**, **Default Types**, or **AutoNumber Sources**.

Set your preference settings from the available options for Parsing and Validation Options, Business Rule Options, Default Types, or AutoNumber, and then select **Save**. This chapter provides the necessary information on available options and procedures to set these options.

Setting Parsing and Validation Options

When you select the **Parsing and Validation Options** preference group, the following options appear:

Log Transformations	The **Log Transformations** checkbox sets whether to record all value transformations in the import log file. If you are importing an extremely large file, uncheck the Log Transformations box to achieve faster results.
Multilist Delimiter Character	The **MultiList Delimiter Character** list specifies the character used in the import file to delimit values for MultiList fields. You can select a semicolon (the default), a comma, or a vertical bar.
Cascade Delimiter Character	The **Cascade Delimiter Character** list specifies the character used in the import file to delimit values for cascading list fields. You can select a vertical bar (the default), a comma, or a semicolon.
Whitespace Validation Action	The **Whitespace Validation Action** preference sets how the Import Wizard handles a value with whitespace characters (space, linefeed, newline, or tab) in a field that does not allow them. Select Reject (the default) to reject the value or Strip to remove the whitespace characters.
Case Validation Action	Some Agile fields can be configured to require upper case or lower case values. The **Case Validation Action** preference sets how the Import Wizard handles a value that has the wrong case for a field. Select Convert (the default) to convert the value to the proper case or Reject to reject the value.
Length Validation Action	The **Length Validation Action** preference sets how the Import Wizard handles a value that exceeds the maximum length for a field. Select Reject (the default) to reject the value or Truncate to remove any characters from the value that exceed the maximum length.

Accepting/Rejecting Non-Existing Data

This option was introduced and briefly described in Setting Business Rule Options. The choices are:to:

- Accept/reject all non-existing objects during import
- Selectively accept/reject non-existing objects after import validation. .

Accepting/Rejecting Non-Existing Objects During Import

When you select:

- **Accept,** all PLM objects that are not in the system are imported before import validation. The Import solution will list the new objects that were created for the non-existing objects in the import status message. Print out import status message for all non-existing objects (BOM/AML/Others) during import summary page

  Note You must select the **Accept** check box during import validation

- **Reject**, all PLM objects that are not in the system before import validation are rejected during import. The Import solution will list the non-existing objects that were rejected in the import status message. Print out import warning message for all non-existing objects (BOM/AML/Others) during validation summary page

Note You must de-select the **Accept** check box for all non-existing objects during import validation

To accept/reject importing non-existing objects into Agile PLM:

1. In PLM Web Client, select **Tools and Settings > Import**. The Import Wizard opens in the Import page.
2. In Import Wizard select **Preferences**. The **Import Preference** dialog opens.
3. In **Import Preference,** select **Business Rule**. The Business Rule options list appears.
4. In **Business Rule** select **Behavior upon non-existing objects** and then select either **Accept** or **Reject**.
5. Click **Save** to proceed to the remaining import tasks. To validate, see Validating Source Data before Importing.

Note The import Validation feature is supported for PC and PQM objects.

Selectively Accepting/Rejecting Non-Existing Objects after Validation

When you choose to selectively import or reject PLM objects that are not in the system after validation, Import will list the non-existing objects in the Validation summary page. You then have the option to import or reject the objects the are not present in the PLM database.

Note The import Validation feature is supported for PC and PQM objects.

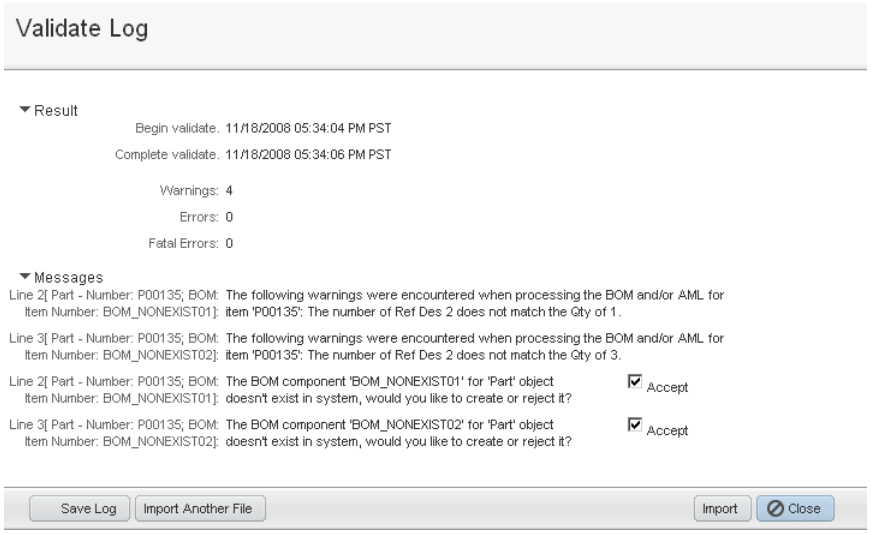
To selectively accept/reject importing non-existing objects after validation:

1. Assume the import file is a text file that contains the following data:

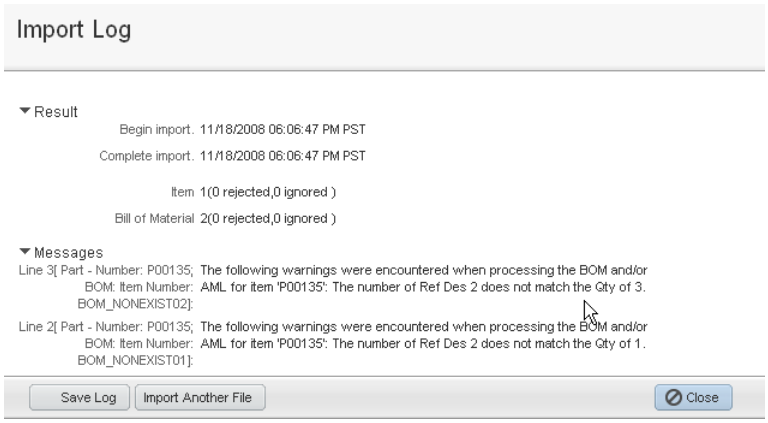
```
item,bom,qty,refdes
P00135,BOM_NONEXIST01,1,A1-A2
P00135,BOM_NONEXIST02,3,B1-B2
```

2. In PLM Web Client, select **Tools and Settings > Import**. The Import Wizard opens in the Import page and prompts you for the import file.
3. In Import Wizard click **Browse** and select the above text file and click **Preference**. The **Import Preference** dialog opens.
4. In **Import Preference,** select **Business Rule > Behavior upon non-existing objects**.
5. Select **Accept** *for purposes of this example*.
6. Click **Save**.
7. In Import Wizard click **Next**. The **Specify File Contents** appears.
8. Select **Bill of Materials > Next**. The Select Content Options step opens.
9. Make your selection depending on your input and requirements and click **Next**. The Specify Attribute Mapping page opens.
10. In Specify Attribute Mapping dialog, map the fields (for this example, as shown below).
11. Click **Next**. The Review Import Definition step appears.

12. Select **Validate**. The Validate Log file opens.



13. Select **Import**. The Import Log opens and displays the results.



Setting Business Rule Options

When you select the **Business Rule Options** preference group, the following options appear:

- Smart Rules Warning Violation Behavior
- Reference Designator Quantity Mismatch Behavior
- Behavior upon non-existing objects
- Change Mode
- Redline Mode Behavior
- BOM & AML Import Behavior
- Multi Row Update Mode

- Price Quantity Break Default
- Sourcing Project QTY Rollup
- Reference Designator Range Character
- Reference Designator Delimiter Character

These options are described in the following paragraphs.

Smart Rules Warning Violation Behavior

These are the Smart Rules that were set to Warning in the Java Client. It does not apply to Smart Rules that were set to other values, such as Allow or Disallow.

- DuplicateFindNumbers
- DuplicateItemNumbers
- DuplicateRefDes
- MultipleItemsPerManufPart
- Overlap Price Line Effectivity Periods
- Workflow Matching Criteria Attribute Modification

If you select:

- **Reject Objects** (the default), any object that triggers a Smart Rules warning is rejected
- **Accept Objects**, the Smart Rules warnings are logged, but objects are imported

Reference Designator Quantity Mismatch Behavior

The **Reference Designator Quantity Mismatch Behavior** drop down list provides the option to Accept/Reject imports as follows:

- If you select **Accept**, Import will ignore the Reference Designator Quantity Mismatch warnings and will import the data
- If the you select **Reject** , Import will fail when there is a Reference Designator Quantity Mismatch warning and will save the warnings in the Import log file

Behavior upon Non-Existing Objects

When importing a non-existing PLM object, you have the option to:

- Accept importing all PLM objects that are not in the system before performing import validation
- Reject importing all PLM objects that are not in the system before performing import validation
- Selectively Accept or Reject importing PLM objects that are not in the system's databases after performing import validation. To support this option, Import will list the non-existing objects in the Validation summary page.

See Accepting/Rejecting Non-Existing Data on page 44 for more information.

Change Mode

The Import Wizard enables you to import items, BOMs, and AMLs, prices, and price lines in Redlining or Authoring mode.

In Redlining mode, the default setting, the Import Wizard uses the redlining process to update BOM, AML, and price lines rows. Any fields that have changed are highlighted in red. A change order is required regardless of the revision state. Redlining mode is required to import data to any item or price with a pending change or a released revision.

In Authoring mode, the Import Wizard does not use the redlining process to update BOM, AML, and price lines rows. It therefore doesn't require a change order. Authoring mode is useful if you are importing data to preliminary items and you don't want to roll the revision.

Redline Mode Behavior

The **Redline Mode Behavior** preference allows you to determine which items get added to the Affected Items tab of a change when you import them in Redlining mode. You can choose to add all items to the change, add only new items, or add new items and existing items that require redlining.

Select one of the following options:

- **New/Existing items onto the change** (default) — adds new items and existing items that have been redlined to the Affected Items tab of the change. Any existing items contained in the import data that have not been redlined are not added to the change.
- **All items onto the change** — adds all items listed in the import data to the Affected Items tab of the change, regardless whether the items are new or whether they have been redlined.
- **New items only onto the change** — adds only new items to the Affected Items tab of the change. Existing items, whether they have been redlined or not, are not added to the change.

Note You can redefine BOM and AML fields, and Title Block fields that are under change control, such as **Title Block > Description**, **Title Block > Lifecycle Phase**, and **Title Block > Rev**.

BOM and AML Behavior

The **BOM & AML Import Behavior** preference specifies the behavior to use when importing BOMs and AMLs. You can import all items (including BOM components) or only items that have BOMs or AMLs. Select one of the following options:

- **Import assys, amls, and components** (default) — imports all items, including BOM components.
- **Only import assys and amls** — imports only items that have BOMs or AMLs. BOM components are not imported.

Multi Row Update Mode

The **Multi Row Update Mode** preference determines how source data is used to update target tables such as BOMs, AMLs, and price lines. You can choose from the following fields:

- **Complete Replace** (the default) — If you choose **Complete Replace**, the target data is completely replaced with the source data. Any rows in the target data that don't appear in the source data are deleted.
- **Add/Update Only** — If you choose **Add/Update Only**, new rows in the source data are added and existing rows are modified but no rows are deleted. The *Add/Update Only* setting is helpful if you want to import partial BOM, AML, or price lines data.

  Note This option is only applicable to BOM, AML, and Price Line data imports. It is always *Add/Update* mode for other import types

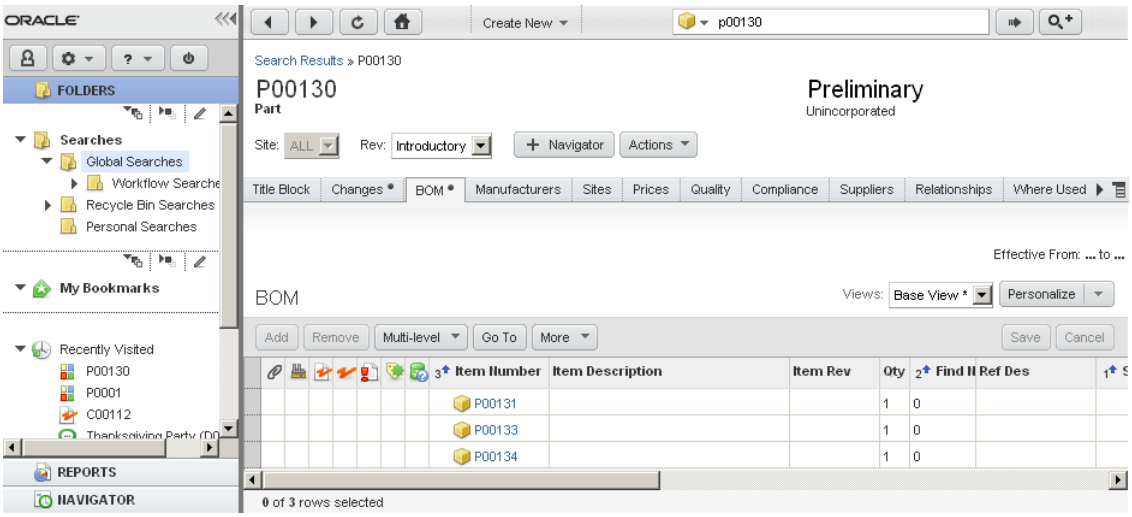
- **Selective Remove—** If you choose **Selective Remove**, you are able to specify the row that you want:
  - Removed
  - Imported/added
  - Updated

  Note This option is only applicable to BOM, and AML data imports and is always Add/Update mode for other import types. The process involved in invoking this option for BOM and AML data imports is further explained with the aid of the example in Setting the Selective Remove Option on page 49. This option is supported when importing BOM and AML data through level template and PDX or aXML data formats.

Setting the Selective Remove Option

This example uses Import Wizard's **Selective Remove** in **Business Rule Options**' **Multi Row Update Mode** to add, delete, and update a BOM. The current BOM, the import data, update requirements, procedures, and results appear below.

Current BOM



Delimited import text file

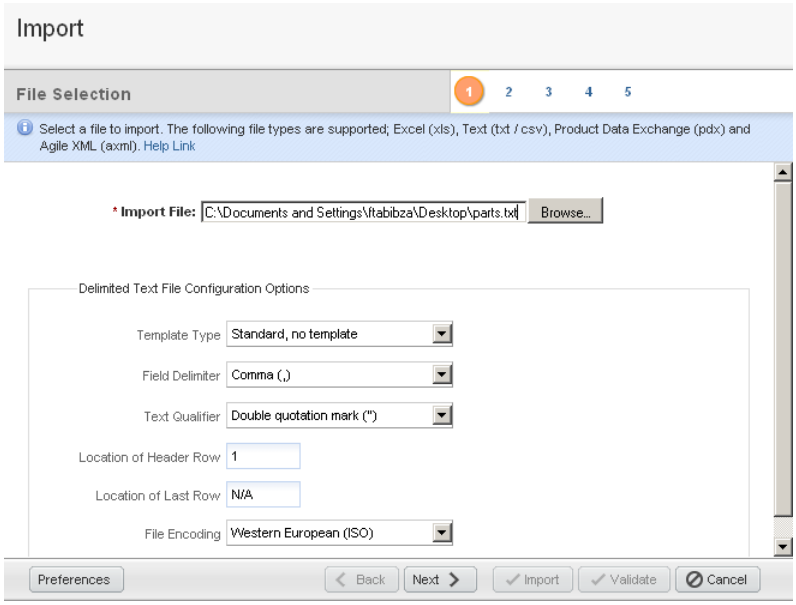
```
Parent, bom, qty,isDelete
P00130, P00133,1,Yes
P00130, P00131,10,NO
P00130, P00135,1,NO
```

Problem statement

Modify the BOM by updating P00131, adding P00135, and in the process, deleting P00133.

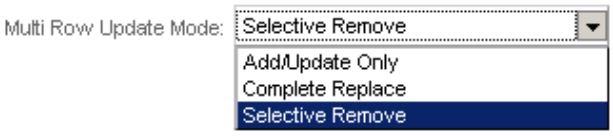
Solution

1. In PLM Web Client, select **Tools and Settings > Import**. The Import Wizard opens and prompts you for the import file.

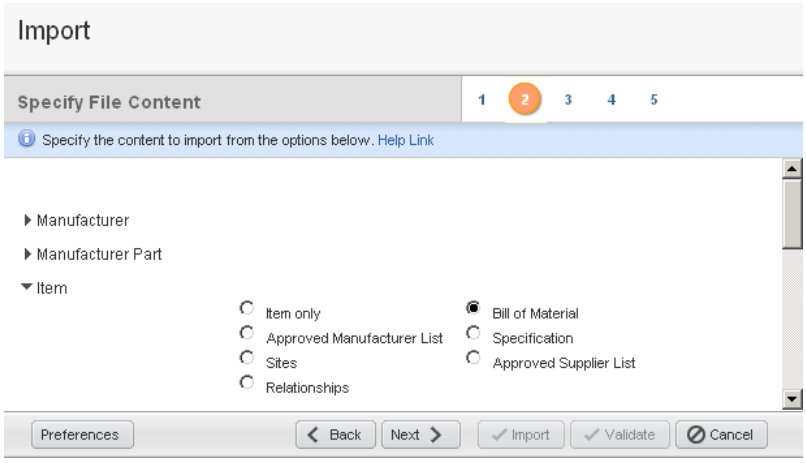


2. In Import Wizard click **Browse,** select the above file, and click the **Preferences** to open **Import Preference** dialog.

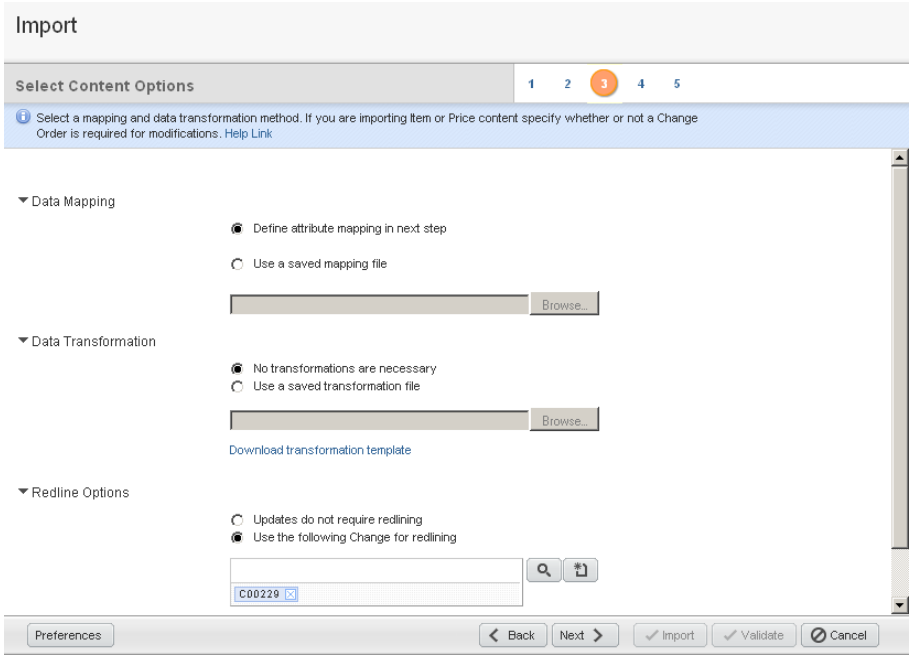
3. In **Import Preference,** select **Business Rule > Multi Row Update Mode > Selective Remove > Save.**



4. In Import Wizard click **Next**. The **Specify File Contents** step appears.

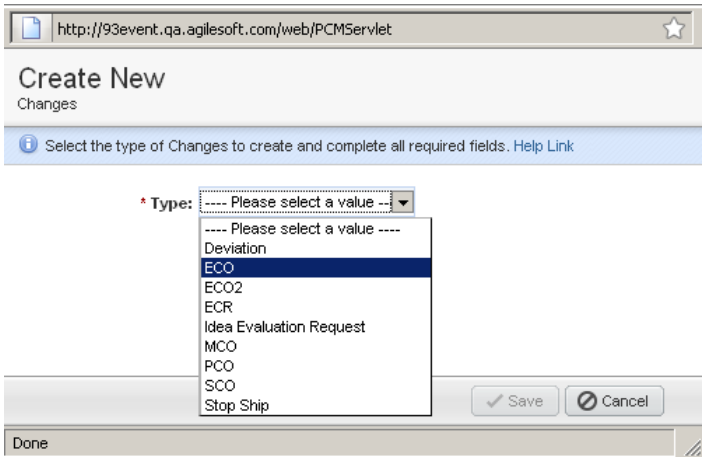


5. Select **Bill of Materials > Next**. The **Select Content Options** step opens.



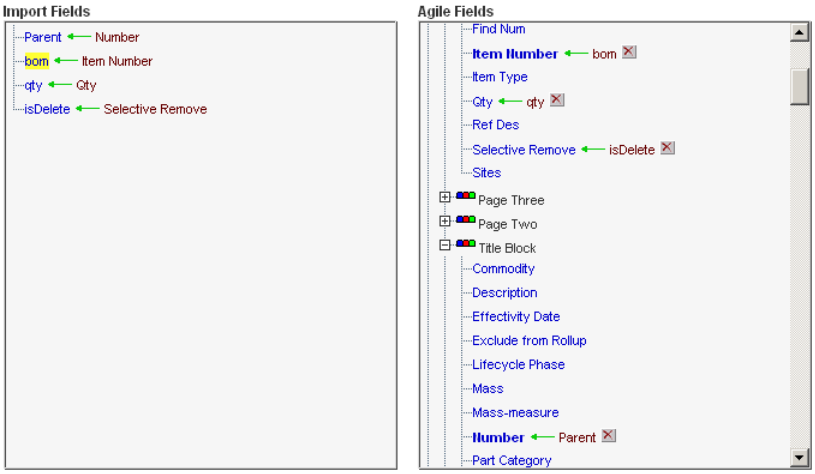
6. Set your Data Mapping, Data Transmission, and Redline Options.

7. In **Redline Options** click  button.



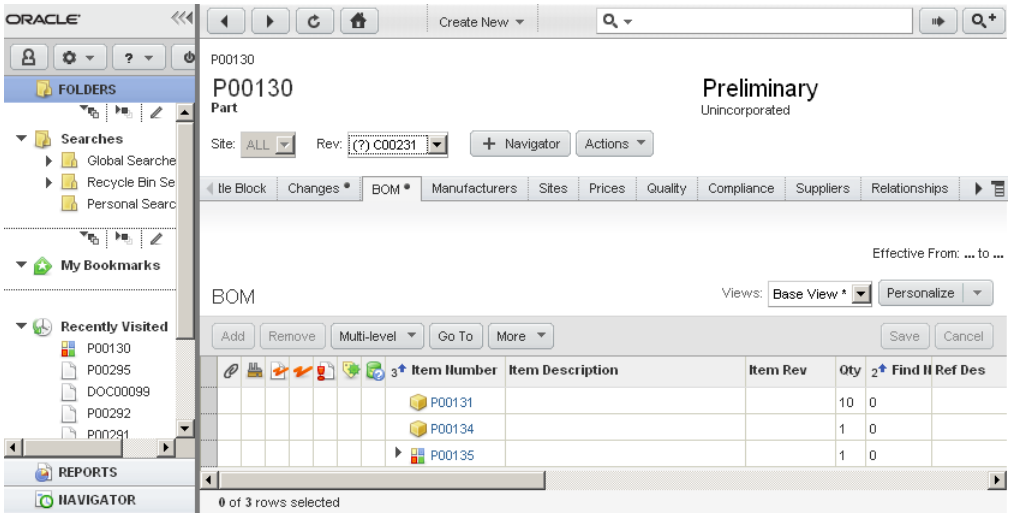
8. In **Create New Changes**, select **ECO**.and when the ECO is created, click **Save**.

9. In Step 3 of the Wizard, click **Next** to proceed to Wizard's **Specify Attribute Mapping**.step.



10. Map the attributes. You can click **Next** to proceed to Step 5, Review Import Definition, and then select **Import**, or select **Import**. When you select Import, the Import Log dialog opens.

11. In Web Client, view the P00130 BOM changes. P00131 is updated, P00135 is added, and P00133 is removed.



Price Quantity Break Default

A price object has a General Information field named Allow Qty Breaks that determines whether prices are broken out by different quantities. If the Import Wizard automatically creates a new price object during the import of price lines, it sets the value of the Allow Qty Breaks field based on the **Price Quantity Break Default** preference.

If you want to allow quantity breaks for new price objects created by the Import Wizard, select Yes. Otherwise, select No (the default).

Note You can't change the Allow Qty Breaks setting for an existing price object. You can only set its value for a new price.

Sourcing Project QTY Rollup

This rule applies to PCM only. The quantity values are set in PCM's table menus. For example, you can set "QTY Rollup" values for:

- Sourcing Project item import
- Imports in Supplier Response
- RFQ Response Status for non-web suppliers

Note In Import/Export, you can set this rule to **Yes/No**.

Reference Designator Range Character

Select either Hyphen (-) (the default), Backward Slash (\), Forward Slash (/), or Vertical Bar (|). The range character separates reference designator values that expand to a sequence of values. For example, **R4-R6** expands to **R4,R5,R6**.

If you are importing BOMs from a PDX package or an aXML file, the reference designator range character must be a hyphen. For more information about reference designators, see Using BOM Reference Designators on page 21.

Reference Designator Delimiter Character

Select either Comma (,) (the default), Semicolon (;), or Vertical Bar (|). The delimiter character separates reference designator values that don't need expansion, for example: **R1,R2,R3**.

If you are importing BOMs from a PDX package or an Agile XML (aXML) file, the reference designator delimiter must be a comma.

Persisting Import Settings in User Sessions

When you use the Import Wizard in Web Client, the current settings persist as long as you maintain the session. Persisted Import Wizard settings include:

- Import preferences
- Source file configuration (but not the file name and path, which are not persisted)
- Selected content to import
- Selected mapping file
- Selected transformation file

If you choose a different type of source file, the Import Wizard resets the selected content, mapping file, and transformation file. If you log out of Web Client and then log back in, the Import Wizard resets to the default settings.

Persisting Import Preference Settings in File Systems

Unlike User Sessions, an authorized administrator can enable a user to set and save Import preferences on a global basis. In this process, this administrator defines/selects a user in Java Client and then enables the *Save Import Preferences Setting* option for the selected user. Then this user can set and save Import preferences setting from Web Client. Moreover, these settings, unlike settings in user sessions, are not lost if, and when, the user logs out and logs back in. The necessary procedures are provided in the following paragraphs.

Enabling a User to Save (Persist) Preference Settings

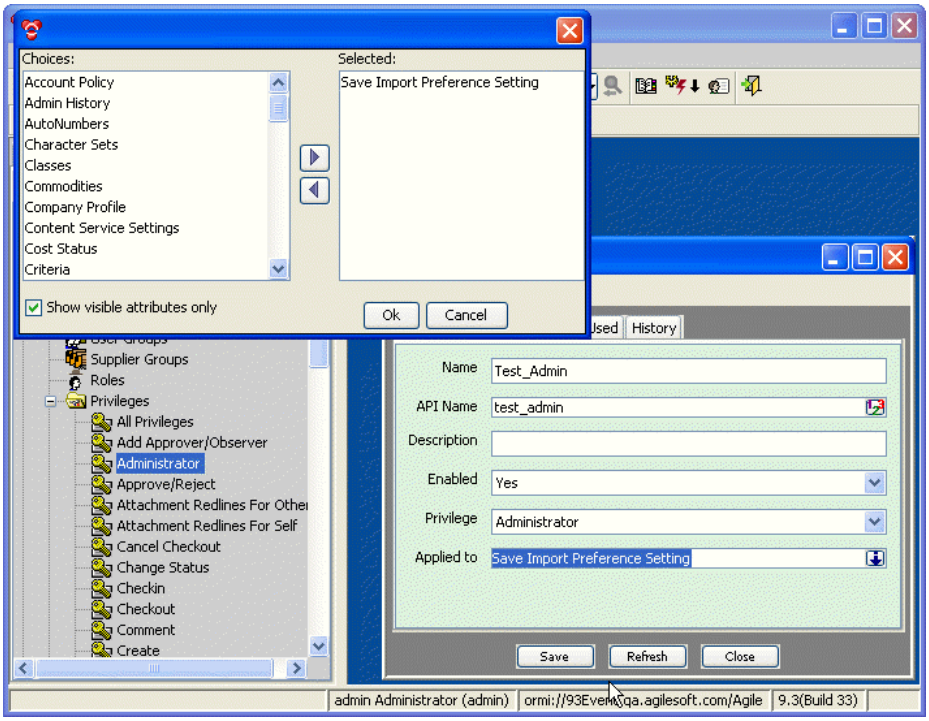
In the following example, the Administrator defines a user called *Test_Admin* and enables the *Save Import Preference Setting* option for this user. This user is then able to save the preference setting in PLM Web Client.

Note Because this operation saves import preferences in the file system, the user requires the Get file, Create file folder, Discover file folder, Read file folder, Modify file folder, Check in file, and Check out file privileges. Users who view/read these Preferences, require the Discover file folder, Read file folder, and Get file privileges.

To define a user and enable the Save Import Preference Setting option:

1. In Java Client, log in as Administrator and select **Admin > Users**. The Users panel opens.
2. In **Users** panel define a user called **Test_Admin**. For procedures refer to the *Agile PLM Getting Started Guide*.
3. In **Admin > Privileges for Administrator**, create administrator privileges (for Test_Admin).
4. Double click **Test_Admin**. The Privilege: Test_Admin panel opens.

5. In **Privilege: Test_Admin**, select **Applied to > Save Import Preference Setting**.



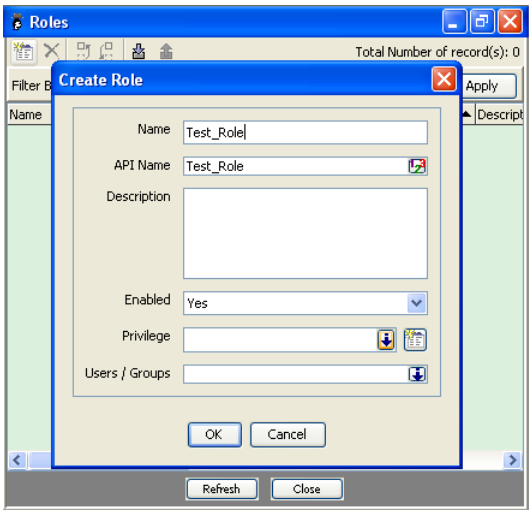
Assigning Roles and Privileges

To assign roles and privileges:

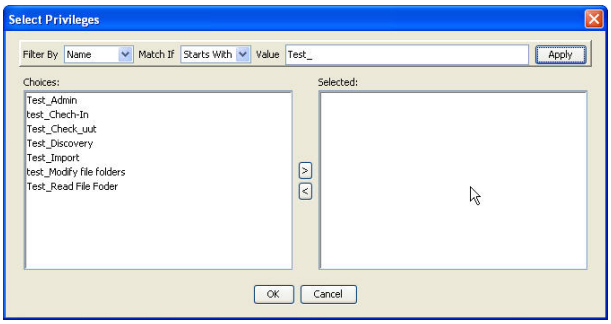
1. In Java Client, select **Admin > Privileges**.
2. In **Privileges**, select, define, and apply the following privilege masks (actions). Be sure to save the settings after each step. For procedures, refer to the *Agile Product Lifecycle Management Administrator Guide*.

Privilege	Privilege Mask Name	Applied Criteria
Checkin	Test_Check_in	All File Folders
Checkout	Test_Check_out	All File Folders
Delete	Test_Delete	All File Folders
Discovery	Test_Discovery	All File Folders
Import	Test_Import	
Modify	Test_Modify	All File Folders
Read	Test_Read	All File Folders

3. In **Admin**, select **User Settings > Roles > Create button** . The Create Role dialog opens.



4. In Create Role dialog, define a role called **Test_Role**. and click the down arrow in the **Privilege** field. The Select Privileges dialog opens.
5. In Select Privileges dialog, locate the privileges you defined earlier (They all had Test_ in their names).
6. Make your selection and then click **OK**.

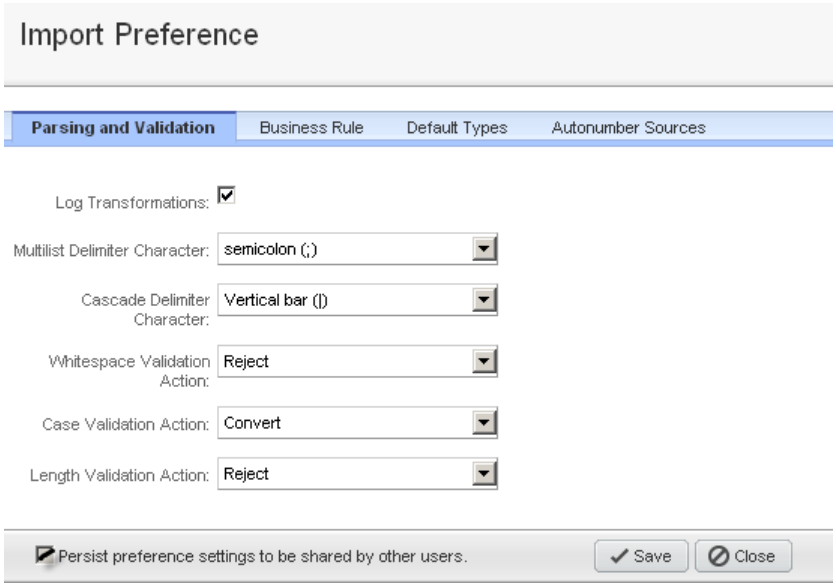


Setting and Saving Import Preferences

The user Test_Admin created in Assigning Roles and Privileges on page 57 can set and save Import preference settings as follows:

1. Log in to Web Client as **Test_Admin**
2. In the Tools drop-down menu select **Import**.
3. In the lower left corner, click **Preferences**. The Import Preferences dialog opens.

4. In Import Preferences check the **Persist preference settings to be shared by other users** box.



To verify these settings will persist, log off and log back on as **Test_Admin**.

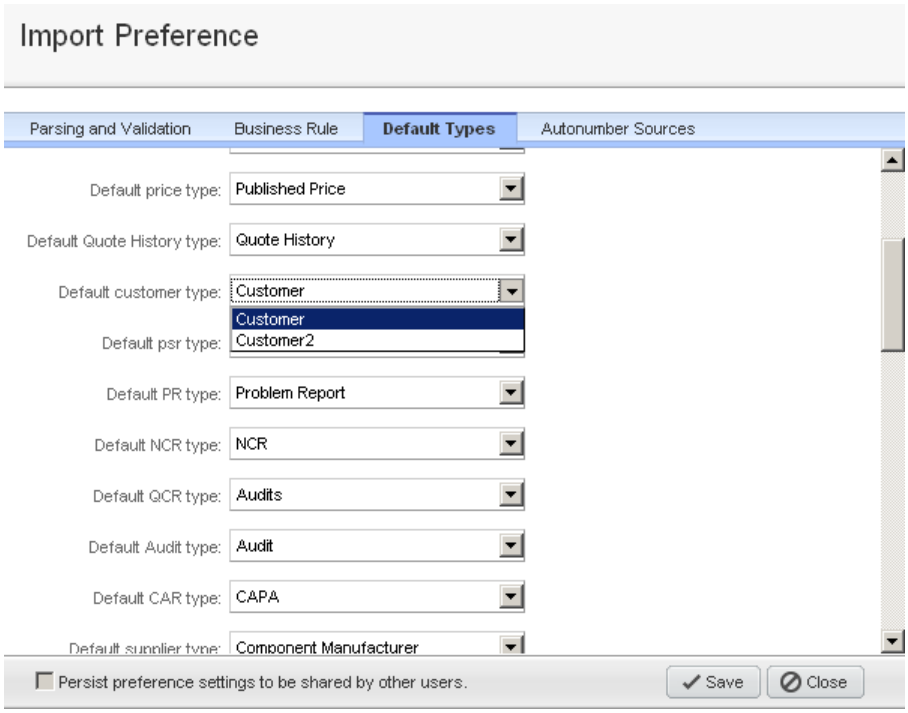
Setting Default Types

To create a new object in the PLM system, you must specify the subclass of the object. Every Agile PLM system can be configured to have different subclasses. To simplify the importing of new objects, you can specify the default subclass to use for each object type that can be imported. If the subclass is not specified by one of the mapped fields (such as **Parts Class > Title Block > Part Type**), the Import Wizard creates the new object using the default type.

The default type is also used when the Import Wizard automatically creates parent items for BOMs, AMLs, and price lines.

To set default types for the Import Wizard:

1. Click the **Preferences** button in the bottom left corner of the Import Wizard. The Import Preference page opens.
2. Select **Import Preferences > Default Types**.



3. Specify default subclasses for each object type, and then click **Save**.

Setting Default AutoNumber Sources

An AutoNumber source is a predefined, consecutive number series used to automatically number objects for many Agile classes. The Import wizard uses AutoNumber sources to assign numbers to new objects it creates when the **Number** field is either not required or not provided in the source data. When the Import Wizard automatically creates published prices, quote histories, product service requests, quality change requests, customers, and suppliers, it uses the selected AutoNumber sources to number objects. For example, if you are importing new customers with source data that includes only the customer name, the Import Wizard assigns a number to each customer using the default AutoNumber source for the customer class.

Note The Agile PLM administrator can define new AutoNumber sources using the Java Client.

To set default AutoNumber sources for the Import wizard:

1. Click the **Preferences** button in the bottom left corner of the Import Wizard. The Specify Preference Settings window appears.
2. Select **AutoNumber Sources**.
3. Specify default AutoNumber sources for each class, and then click **OK**.

Chapter 4

Validating Source Data before Importing

This chapter includes the following:

Overview

Using **Import Validation**, you can check the source data for compliance with Agile PLM server rules before importing the data into PLM databases. When you invoke this feature, Import will generate a report displaying errors that it encountered during the validation process. Using this report, you can make the necessary corrections and then import the data into PLM databases. Invoking **Validation** does not import any data; it only checks it for compliance with server rules.

Source Data Validation Extent and Scope

Source data validation support includes the PLM file types, objects, tables, and facilities described below.

Supported File Types and Objects

Source import validation is applicable to aXML, PDX, CSV (delimited text files), and Excel source files. For CSV and Excel formats, you must provide a mapping definition similar to import. For aXML and PDX, there is no need for a mapping definition because Import will provide the default mapping settings.

Validation is performed on data fields belonging to objects in the following groups:

- Parsing and Validation Options
- Business Rule Options
- Default Types
- Autonumber Sources

Note Users performing data validation must have the Delete object privilege. This is necessary because data validation will create non-existing objects before validating data and once data validation is complete, it will delete all generated objects. During this process, Agile PLM will issue a single warning stating the user does not have the delete object privilege.

Supported Tables

Validation is performed on data in the following classes and tables:

- Item
  - Title Block
  - Page Two
  - Page Three
  - Bill of material
  - Approved Manufacturer Part
  - Relationship
  - Attachments
- Manufacturer
  - Cover Page
  - Page Two
  - Page Three
  - Relationship
  - Attachments
- Manufacturer Part
  - Cover Page
  - Page Two
  - Page Three
  - Relationship
  - Attachment
- Part Group
  - Cover Page
  - Page Two
  - Page Three
  - Relationship
  - Attachments
- Product Service Requests (PSR)
  - Afftected Item
  - Cover Page
  - Page Two
  - Page Three
  - Related PSR
  - Relationship
  - Attachments

- Quality Change Requests (QCR)
  - Afftected Items
  - Cover Page
  - Page Two
  - Page Three
  - Relationship
  - Attachments

Validation Support for Agile SDK and Agile Integration Services

Agile Integration Services (AIS) and Agile Software Developer Kit (SDK) also support source data validation.

- **AIS** — Provides a new operation called `importer.ValidateData` to validate source import data.
- **SDK** — Provides two interfaces called `IImportManager.importData()` and `IImportManager.validateData()` to perform import and validation.

Validation Results Log File

An XML Document Type Definition (DTD) file is embedded in the *import.log* to provide the following post validation information:

- Classified and sorted according to severity
  1. Note
  2. Warning
  3. Error
  4. Fatal
- A summarized validation results that shows the number of warnings, errors, and fatal errors that were encountered during the validation process.

Sample Validation Log File Output

```
<?xml version='1.0' encoding='UTF-8'?>
<!DOCTYPE import-log [
<!ELEMENT import-log (begin-
import,(note|warning|error|fatal)*,validate-summary?,record-
summary*,end-import)>
<!ELEMENT begin-import (#PCDATA)>
<!ATTLIST begin-import timestamp CDATA #REQUIRED>
<!ELEMENT note (#PCDATA)>
<!ATTLIST note
     context CDATA     #IMPLIED
     line CDATA     #IMPLIED
```

```
      type CDATA     #IMPLIED
>
<!ELEMENT warning (#PCDATA)>
<!ATTLIST warning
      context CDATA     #IMPLIED
      line CDATA     #IMPLIED
      type CDATA     #IMPLIED
>
<!ELEMENT error (#PCDATA)>
<!ATTLIST error
      context CDATA     #IMPLIED
      line CDATA     #IMPLIED
      type CDATA     #IMPLIED
>
<!ELEMENT fatal (#PCDATA)>
<!ATTLIST fatal
      context CDATA     #IMPLIED
      line CDATA     #IMPLIED
      type CDATA     #IMPLIED
>
<!ELEMENT validate-summary EMPTY>
<!ATTLIST validate-summary
      warning NMTOKEN #REQUIRED
      error NMTOKEN #REQUIRED
      fatal CDATA #REQUIRED
>
<!ELEMENT record-summary EMPTY>
<!ATTLIST record-summary
      accepted NMTOKEN #REQUIRED
      ignored NMTOKEN #REQUIRED
      import-type CDATA #REQUIRED
      rejected NMTOKEN #REQUIRED
>
<!ELEMENT end-import (#PCDATA)>
<!ATTLIST end-import
      fatal NMTOKEN #REQUIRED
      timestamp CDATA #REQUIRED
>]>
<import-log>
<begin-import timestamp="27/04/2007 07:45:49 AM BST">Begin
validate.</begin-import>
<note line="6">Value for property &apos;Title Block.Number&apos;
changed during Case validation; value &apos;a2&apos; became
&apos;A2&apos;.</note>
```

```
<note line="6">Value for property &apos;BOM.Item Number&apos; changed
during Case validation; value &apos;a2&apos; became
&apos;A2&apos;.</note>
<error type="com.agile.imp.pc.adapter.ImportProductContentAPIException"
line="7" context="Part - Number: A2; BOM: Item Number: A21">Could not
process the BOM and/or AML for item &apos;A2&apos; -
BOM/AML/Attachments will be rejected:
Reference designator/quantity mismatch: There are 10 reference
designators and quantity is 5.</error>
<error type="com.agile.imp.pc.adapter.ImportProductContentAPIException"
line="5" context="Part - Number: A12; BOM: Item Number: A123">Could not
process the BOM and/or AML for item &apos;A12&apos; -
BOM/AML/Attachments will be rejected:
Reference designator/quantity mismatch: There are 8 reference
designators and quantity is 5.</error>
<error type="com.agile.imp.pc.adapter.ImportProductContentAPIException"
line="4" context="Part - Number: A1; BOM: Item Number: A12">Could not
process the BOM and/or AML for item &apos;A1&apos; -
BOM/AML/Attachments will be rejected:
Reference designator/quantity mismatch: There are 7 reference
designators and quantity is 3.</error>
<error type="com.agile.imp.pc.adapter.ImportProductContentAPIException"
line="3" context="Part - Number: A0; BOM: Item Number: A1">Could not
process the BOM and/or AML for item &apos;A0&apos; -
BOM/AML/Attachments will be rejected:
Reference designator/quantity mismatch: There are 6 reference
designators and quantity is 2.</error>
<validate-summary warning="0" error="4" fatal="0"/>
<end-import timestamp="27/04/2007 07:45:50 AM BST"
fatal="false">Complete validate.</end-import>
</import-log>
```

Data Validation Procedures and Examples

When you invoke the Import Wizard, it will open in the Import Source page. To validate source data, you must select the option group using the **Preferences** dialog. The following procedure and example describe the **Preferences** dialog and validating a source aXML file.

To view parameters and settings in each group:

1. In Agile PLM, select **Tools > Import**. The Import Wizard opens in the Import Source page.
2. Click **Preferences**. The Specify Preferences Settings dialog opens in the Parsing and Validation Options group and displays the data elements that you can set for this group.
3. Using the drop-down list, you can view and set the data elements for Business Rule Options, Default Types, and AutoNumber Sources.

A Data Validation Example

The following procedure is an example of validating a source aXML file for compliance with BOM

and AML requirements. The steps are similar to those documented in Setting the Selective Remove Option on page 49 and Selectively Accepting/Rejecting Non-Existing Objects after Validation on page 45.

To validate a source aXML data file:

1. In Agile PLM, select **Tools and Settings > Import**. The Import Wizard opens in the Import Source page.
2. Use **Browse** to select the Import source and for **File Type**, select **Agile XML (aXML) Package**.
3. Click **Preferences** and select **Business Rule Options**. The other options that you can select are Parsing and Validation Options, Default Types, and Autonumber sources.
4. In **Business Rule Options** page, set **Change Mode** to **Authoring** (it is also applicable to the Redline mode).
5. Click **Next.** The Select Contents to Import page opens.
6. Choose **Item > Bill of Material > Approved Manufacturer List**.
7. Click **Next.** The Select Change order and Mapping page opens.
8. Click **Validate.** The validation results are displayed on the screen.

Chapter 5

Importing Product Content

This chapter includes the following:

Selecting Product Content Objects to Import

For Excel files and delimited text files, you can select only one object type to import. If the source format is an aXML or PDX package, you can select multiple object types to import.

The following table describes the types of objects you can import.

Object	Description
Manufacturer	A manufacturer with which your organization collaborates
Manufacturer Part	A manufacturer part that your organization uses. A Manufacturer Part is identified by its Manufacturer Part number, not an internal part number.
Item	A unique part, material, subassembly, or product. Agile provides two out-of-the-box Item classes, Parts and Documents.
Bill of Material (BOM)	A listing of all the subassemblies, parts, and raw materials that go into a parent assembly. It shows the quantity of each part required to make an assembly.
Approved Manufacturer List (AML)	The list of manufacturers that have been approved to supply a particular Item. The list identifies the Manufacturer Part for that Item.
Quote History and Quote History Lines	Price quotes from previous projects or legacy data.
Published Price and Published Price Lines	Published prices or contract prices on current Items and Manufacturer Parts
Product Service Request (PSR)	A routable object used to issue problem reports and nonconformance reports for products
Quality Change Request (QCR)	A routable object used to generate reports addressing changes to improve product quality and conformance requirements
Customer	A customer that provides feedback on your company's products, alerting you to quality issues or problems they encounter
Attachment	File(s) attached to an object

Object	Description
Substance	Elements or compounds used in the composition of Items, Manufacturer Parts, and Part Groups
Declaration	Declarations are routable objects used to bring information concerning the environmental compliance of Parts (Items, Manufacturer Parts, and Part Groups)
Specification	A list of banned substances (or substances of concern) and their threshold values
Part Groups	A group of similar Items or Manufacturer Parts. For PG&C, Items and Manufacturer Parts are similar if they have the same chemical composition and thus similar compliance requirements; or PCM, Items and Manufacturer Parts are similar if they belong to the same commodity class
Relationship of Item, Manufacturer, Manufacturer Part, part Group	Replace relationship data from source into existing relationship data
Root Projects	Update P1,P2,P3, action Items, and discussion of root project
User	Create buyer/supplier user, update Userpreference, and User Group information
User Group	Create User Group, update User Group, and User information

For information about importing supplier data, currency conversion tables, Root Projects, users, and User Groups, see Importing Supplier and System Data on page 91. You can also import project Items, project BOMs, and project AMLs from within a Sourcing Project. For more information, see Importing Data into a Sourcing Project on page 101.

Importing Items

An item is any unique manufactured or purchased part, material, subassembly, or product. An item can contain a BOM, which defines relationships with other items or subassemblies, and an AML, which defines the approved manufacturers and their respective manufacturer parts for that item. The composition, bill of substances, and part families belong to Product Governance & Compliance solution of Agile PLM. For information on these items, refer to the *Product Governance & Compliance User Guide*.

Items in the Item Master represent the approved product content for your enterprise. Because an item can go through several changes during a product lifecycle, it can have multiple revisions. The Item Master stores an item's revision history. Items contained within a project do not have multiple revisions. They serve as temporary data used to generate RFQs.

To import an item, you must map the **Title Block > Number** field. To specify a particular revision, you must also map the **Title Block > Rev** field. You can import items into the Item Master or a sourcing project.

Importing Existing and Non-existing BOM Components

When you import BOMs, the Import Wizard automatically creates the items that do not exist in the Agile PLM system. You have the option to specify the class type of the BOM component using the Agile bom.item type field. If you do not specify the class type of the BOM component using bom.item type, Import Wizard assigns the default item type and generates the following warning message as it automatically creates the BOM component:

"The Item/Manufacturer Part ***' is auto created during import BOM/AML table without required fields provided."

If a BOM item is already in the Agile PLM system, the Import Wizard associates the item with its latest revision.

Under the following two conditions, the Import Wizard fails to automatically create child items on a BOM:

- If the parent item's required fields (such as **Cover Page > Number**) are invalid
- If you imported BOMs to a project and the BOMs were subsequently rolled back

Importing Find Numbers

If the **BOM > Find Num** field is not mapped, its default value is 0.

Importing Partial BOMs

To update a BOM without deleting existing BOM components, set the **Multi Row Update Mode** preference to "Add/Update Only." The Import Wizard imports new BOM components and updates any existing components. For more information, see Setting Business Rule Options on page 46.

Behavior of the Description of Items during Import

During import, the description of the imported Item is impacted by its Redline and Authoring modes. In addition, this behavior is different in Agile PLM Release 9.2.2 and Agile PLM Release 9.3.

Release 9.2.2 Behavior

In the Redline or Authoring modes the behavior of the description of the imported item differs whether a released version *is* or *is not* associated with the item.

Redline Mode

In this mode, Agile PLM will only update the description of the pending version whether a released version is or is not associated with the imported item.

Authoring Mode

In this mode, the behavior differs when a released version is/is not associated with the imported item.

- Agile PLM will always update the description of the **Introductory** version and those of all pending versions when a released version *is not* associated with the item. This occurs whether the item did/did not exist before importation.
- Agile PLM will always update the description of the latest released version and those of all pending versions of the imported item when a released version *is* associated with this Item. However, with the exception of the released version, all other versions, including the Introductory and subsequent versions are read only copies.

Release 9.3 Behavior

In Release 9.3, in addition to the Release 9.2.2 behavior described above, when importing newly created items in Redlining or Authoring modes, Agile PLM will set the description of the imported item in the" Introductory Revision."

Note	When updating item descriptions, make sure all user privileges are verified.

Importing Bills of Materials

A bill of material is a listing of all the subassemblies, parts, and raw materials that go into a parent assembly. It shows the quantity of each part required to make an assembly.

You can import bills of material into the Item Master or a sourcing project. If you are importing BOMs from a text file or a Microsoft Excel file, make sure all BOM components for a parent item are grouped together in contiguous rows. For more information, see Sorting BOM Components on page 25.

Note	When you import bills of material, the Import Wizard automatically creates any items listed in the source data that don't already exist in the Agile PLM system.

To import BOMs from a text file or an Excel spreadsheet:

1. Start the Import Wizard.
   a. Click **Tools > Import**.
2. Set import preferences.
   a. Click the **Preferences** button in the bottom left corner of the Import Wizard. The Specify Preference Settings window appears.
   b. From the Preferences list, select Business Rule Options. For more information on these options, see Setting Business Rule Options on page 46.
   c. For **Change Mode**, select Redlining (the default) or Authoring. If you select Redlining, the Import Wizard redlines any BOM fields that changed as a result of the import session. For more information about redlining, see Using Redlining or Authoring Mode on page 80.
   d. For **Redline Mode Behavior**, select which items to add to the specified change order: all items, new items, or new items and existing items that have been redlined.
   e. For **Multi Row Update Mode**, select Complete Replace or Add/Update Only. If you are importing data that includes partial BOMs and not complete BOM structures, select Add/Update Only or Selective Remove.
   f. Click **OK** to save your import preferences for this session.
3. Select the Import source file.
   a. Specify the import source file, or click **Browse** to select the file.
   b. Click **Next** to proceed to the next Wizard step.
4. Select the BOM type.
   a. Select **Item**, and then select **Bill of Material**.
   b. Click **Next**.

5. Select a mapping file.
   a. Choose **Use a Saved Mapping** or **Define attribute Mapping in next step**.
      - If you selected **Use a Saved Mapping**, click **Browse** to select the file.
      - If you selected **Define attribute Mapping in next step**, you can define the new mapping in the next step.
   b. Specify transformation definition file (optional) and click **Next**.
6. Review your import settings, and then click **Import** to begin importing.

Importing Manufacturers and Manufacturer Parts

Each manufacturer name in the Agile PLM system is unique, just as an item number must be unique to an item.

While different manufacturers can use the same manufacturer part number, the combination of manufacturer plus manufacturer part number must be unique to one manufacturer part.

You can import manufacturers and manufacturer parts into the Item Master but not into a project.

Note You must follow the recommended sequence and import manufacturers first, then manufacturer parts. Agile PLM doesn't allow you to import a manufacturer part for a manufacturer that doesn't exist.

Importing BOMs with Duplicate Item and Find Numbers

When Import encounters rows of duplicate **Item Number** and **Find Number**, it assumes it is processing a different BOM component even if the **Item Number** and **Find Number** are the same. Import will reject or accept the content based on smart rules settings that allow or refuse duplicate BOM component with duplicate **Item Number** and **Find Number**. If the same **Item Number** and **Find Number** are already in the system, Import will select the last BOM component (with the same **Item Number** and **Find Number**) from source file to update the last BOM component (with the same **Item Number** and **Find Number**).

Importing Approved Manufacturers Lists

An approved manufacturers list, or AML, is the list of manufacturers that were approved to supply a particular item. The list identifies the manufacturer part for that item.

You can import approved manufacturers lists into the Item Master or a project. The Import Wizard does not automatically create manufacturers when you import AMLs. However, it will automatically create manufacturer parts listed on AMLs. You also have the option to specify the class type of the AML component using the **aml.manufacturer** type field. If you do not specify the class type of the AML component using this field, Import will assign the default manufacturer type. Import will generate the following warning message when automatically creating the AML component:

"The Item/Manufacturer Part ***' is auto created during import BOM/AML table without required fields provided."

Note When you import AMLs to the Item Master, manufacturers listed in the AMLs must already exist in the Agile PLM system. Otherwise, the AML is rejected.

Automatic Creation of Child Manufacturer Parts

When you import AMLs, the Import Wizard checks whether manufacturer parts listed in the AMLs exist in the Agile PLM system. If they don't, the Import Wizard automatically creates them. Under either of the following two conditions, the Import izard fails to automatically create manufacturer parts:

- If the parent item's required fields (such as **Cover Page > Number**) have invalid data.
- If you imported AMLs to a project and the AMLs were subsequently rolled back.

Importing Partial AMLs

To update an AML without deleting existing AML rows, set the **Multi Row Update Mode** preference to "Add/Update Only." The Import Wizard imports new AML rows and updates any existing rows. For more information, see Setting Business Rule Options on page 46.

Importing Quote Histories, Published Prices, and Price Lines

A price object is used to manage the price terms for a part with relation to a supplier, customer, and Project. Each Price object has a Price Lines table that stores the prices and terms related to shipping locations, effectivity periods, and quantities.

There are two classes of Price objects that can be imported: **Quote Histories** and **Published Prices**. Functionally, there is no difference in importing either type of price object. However, if you are importing data from delimited text files or Microsoft Excel files, you must import Quote Histories and Published Prices in separate import operations. You must also maintain separate mapping files for them.

Note When you import price lines, your source data must provide the same consistent set of parent price fields for each row. For example, if your data uses the **General Information > Number** field to identify the parent price object, *every* row of the source data must include a value for that field. Otherwise, the import session may produce unexpected results.

Key Price Fields

The price object can be defined in many ways due to the number of required and optional key fields the object has. A price is associated with either an item or a manufacturer part. At a minimum, your source data should include one of the following sets of key fields:

Set 1	Set 2	Set 3
General Information > Mfr. Part Number **General Information > Mfr. Name**	**General Information > Item Number** **General Information > Item Rev** 1 **General Information > Supplier**	**General Information > Item Number** **General Information > Supplier**

Set 1	Set 2	Set 3
General Information > Supplier		

Note The **Item Rev** field specified in Set 2 above is required only for items with released or pending revisions.

The **General Information > Supplier** field supports two types of source values, either the supplier number or "supplierName - supplierNumber". In either case, values are case-*insensitive*. If you use the "*supplierName - supplierNumber*" format for supplier values, the spaces and hyphen are required.

Your data can include other optional fields, such as **Manufacturing Site**, **Program**, and **Customer**. Values for the **Customer** field should be the customer name, not the customer number. Customer names are case-sensitive; the Import Wizard rejects a price record if the customer name has the wrong case. If your source data doesn't include **Program** and **Customer**, the Import Wizard automatically assumes a value of "All" for those fields.

The **General Information > Allow Qty Breaks** field determines whether prices are broken out by different quantities. If the **Allow Qty Breaks** field is not mapped, the Import Wizard uses the **Price Quantity Break Default** preference to determine which value to use for it; for more information, see Setting Import Preferences on page 43. After a price object is created, you cannot change the value of its **Allow Qty Breaks** field.

Optionally, the source data can also include the **General Information > Number** field. If you are importing data to an existing price object, the **General Information > Number** field and all other required fields must match the target system exactly. Otherwise, the Import Wizard rejects the object. If you don't provide the price number, the Import Wizard attempts to find the price object using other key fields. If a price object with the specified key fields doesn't exist in the system, the Import Wizard creates it and assigns it a number based on the AutoNumber sequence for the price class.

Note You cannot import price lines in Redline mode if the parent price object has a pending change order.

Key Price Lines Fields

At a minimum, your source data for Price Lines must include **General Information > Price Number** or the minimum fields that identify a price object (see "Key Price Fields" above) and the following key Price Lines fields:

- **Price Lines > Price Effective From Date**
- **Price Lines > Ship To**

In addition, if the **Allow Qty Breaks** field is set to Yes for the price object, then the **Price Lines > Qty** field is required and must be mapped.

All list fields on the Price Lines table, such as Ship From, Ship To, Currency, Country of Origin, and Transportation Terms must have valid values. For Ship To, only values listed in the Authorized Ship To list in the user's profile are supported. For Transportation Terms, you can enter three-letter

abbreviations like FOB or the full description, “FOB - FREE ON BOARD VESSEL.” Here’s a full list of values for Transportation Terms:

Value	Full Description
CFR	CFR - COST AND FREIGHT
CIF	CIF - COST INSURANCE AND FREIGHT
CIP	CIP - CARRIAGE AND INSURANCE PAID TO
CPT	CPT - CARRIAGE PAID TO
DAF	DAF - DELIVERED AT FRONTIER
DDP	DDP - DELIVERED DUTY PAID
DDU	DDU - DELIVERED DUTY UNPAID
DEQ	DEQ - DELIVERED EX QUAY (DUTY PAID)
DES	DES - DELIVERED EX SHIP
EXW	EXW - EX WORKS
FAS	FAS - FREE ALONGSIDE SHIP
FCA	FCA - FREE CARRIER
FOB	FOB - FREE ON BOARD VESSEL

Importing Partial Price Lines

To update a Price Lines table without deleting existing rows, set the **Multi Row Update Mode** preference to “Add/Update Only.” The Import wizard imports new price lines and updates any existing rows. For more information, see Setting Business Rule Options on page 46.

Importing Customers and Product Service Requests

If your Agile PLM system includes the Product Service and Improvement license, you can use the system to manage quality issues that arise with customers. A customer can submit problem reports or nonconformance reports that alert you to quality issues or problems they encounter. Problem reports and nonconformance reports are two types of Product Service Requests.

Importing Customers

Customer data may be created in a Customer Relationship Management (CRM) system. If you haven’t integrated your CRM system with the Agile PLM system, you can use the Import wizard to import customers and Product Service Requests.

The Customer class is the only out-of-the-box subclass for customers. You can define other Customer subclasses.

The **Customers > General Info > Customer Name** field is required to import customers. All other fields are optional.

The **Customers > General Info > Customer Number** field is a key field, but it does not need to be mapped. If you do not map the **Customer Number** field, the Import wizard uses the AutoNumber preference to assign numbers to new customers. For more information, see Setting Default AutoNumber Sources on page 60.

Importing Product Service Requests

Similar to Customers, you can create Product Service Requests (PSRs) in a CRM system that is integrated with the PLM system. If the two systems are not integrated, you can import the PSR data into the PLM system.

Importing PSR Objects

The Import solution supports importing and validating PSR objects. The supported file formats are aXML, Excel, and delimited text files. The supported tables and components include Cover Page/P1, P2, P3, Related PSRs, Affected Items, Relationships, and Attachments.

To import a PSR object:

1. Click **Tools > Import**.

   The Import Wizard dialog appears.

2. In Import Wizard dialog, select the source file with PSR data (aXML, Delimited text file, Excel).
3. Click **Next**. The Specify File Content dialog appears.
4. In **Specify File Content** expand **PSR** and check the applicable option: **PSR only**, **Affected Items**, **Related PSR**, or **Relationships**).
5. Click **Next**. The Select Content Options dialog appears.
6. Check applicable option for Data Mapping (You can also select the Data Transformation option if necessary).
7. Click **Next**. The Specify Attribute Mapping dialog (Step 4) appears.
8. Map the attributes.

   You have the option to validate the imported object now or in the remaining steps of the Wizard. If you choose **Validate**, the validation results summary is displayed. Here, you have the option to save the log file and click **Import** to import the content and bypass the remaining step. You can also click the **Import Another File** button to repeat the process.

9. Click **Import** to complete the process.

Importing PSRs Only

The following fields are required to import PSR only:

- **Problem Reports > Cover Page > Number**
- **Non-Conformance Reports > Cover Page > Number**

If you are importing only one class of PSR at a time, you don't need to map fields for both Problem Reports and Non-Conformance Reports. If your source data includes both Problem Reports and Non-Conformance reports, you must map fields for both classes.

Other Cover Page PSR fields you can map include **PSR Type**, **Description**, **Customer**, **Supplier**, **Severity**,

Disposition, and **Expected Resolution Date**. Values for the **Customer** field should be the customer name, not the customer number. Customer names are case-sensitive.

Note All importable PSR fields are supported in the SDK and AIS.

Importing PSR Affected Items

You can import items to the Affected Items table of a PSR. The following fields are required to import PSR Affected Items:

- **Problem Reports > Affected Items > Item Number**
- **Problem Reports > Affected Items > Rev Found**
- **Non-Conformance Reports > Affected Items > Item Number**
- **Non-Conformance Reports > Affected Items > Rev Found**

Note The system supports importing duplicate affected items into a PSR.

Affected items for a PSR can be in any revision state, including Introductory. If you try to import an affected item and it does not exist, the Import Wizard will reject the row.

Importing Related PSRs

You can import PSRs to the Related PSR table of a PSR. The following fields are required to import related PSRs:

- **Problem Reports > Related PSR > PSR Number**
- **Non-Conformance Reports > Related PSR > PSR Number**

If you try to import a PSR that does not exist, the Import Wizard will reject the row.

Importing PSR Relationships Tables

You can import objects to the Relationships table of a PSR. The following fields are required to import PSR Relationships:

- **Problem Reports > Relationships > Number**
- **Problem Reports > Relationships > Type**
- **Non-Conformance Reports > Relationships > Number**
- **Non-Conformance Reports > Relationships > Type**

If you try to import an object that does not exist, the Import Wizard will reject the row.

Importing PSR Attachments

You can import PSR attachments. The following fields are required to import a PSR Attachment:

- **Problem Reports > Attachments > File Identifier**
- **Problem Reports > Attachments > File Name**

- **Non-Conformance Reports > Attachments > File Identifier**
- **Non-Conformance Reports > Attachments > File Name**

Importing Quality Change Requests

Similar to PSRs, you can create Quality Change Requests (QCRs) in a CRM system that is integrated with the PLM system. If the two systems are not integrated, you can import the QCR data into the PLM system.

Importing QCR Objects

The Import solution supports importing and validating QCR objects. The supported file formats are aXML, Excel, and delimited text files. The supported tables and components include Cover Page/P1, P2, P3, Affected items, Relationships, and Attachments.

To import a QCR object:

1. Click **Tools > Import**.

   The Import Wizard dialog appears.
2. In Import Wizard dialog, select the source file with QCR data (aXML, Delimited text file, Excel).
3. Click **Next**. The Specify File Content dialog appears.
4. In **Specify File Content** expand Quality Change Request and check the applicable option: **Quality Change Request only**, **Affected Items**, or **Relationships**).
5. Click **Next**. The Select Content Options dialog appears.
6. Check applicable option for Data Mapping (You can also select the Data Transformation option if necessary).
7. Click **Next**. The Specify Attribute Mapping dialog appears.
8. Map the attributes.

   You have the option to validate the imported object now or in the remaining steps of the Wizard. If you choose **Validate**, the validation results summary is displayed. Here, you have the option to save the log file and click **Import** to import the content and bypass the remaining step. You can also click the **Import Another File** button to repeat the process..
9. Click **Import** to complete the process.

Importing QCR Affected Items

You can import items to the Affected Items table of a QCR. The following fields are required to import QCR Affected Items:

- **Audits > Affected Items > Item Number**
- **Corrective and Preventive Actions > Affected Items > Item Number**

Note The system supports importing duplicate affected items into a QCR.

Affected items for a QCR can be in any revision state, including Introductory. If you try to import an affected item and it does not exist, the Import Wizard will reject the row.

Importing QCR Attachments

You can import QCR attachments. The following fields are required to import a QCR Attachment:

- **Audits > Attachments > File Identifier**
- **Audits > Attachments > File Name**
- **Corrective and Preventive Actions > Attachments > File Identifier**
- **Corrective and Preventive Actions > Attachments > File Name**

Importing QCR Relationships Tables

You can import objects to the Affected Items table of a QCR. The following fields are required to import QCR Relationship Tables:

- **Audits > Relationships > Number**
- **Audits > Relationships > Type**
- **Corrective and Preventive Actions > Relationships > Number**
- **Corrective and Preventive Actions > Relationships > Type**

If you try to import an object that does not exist, the Import Wizard will reject the row.

Using Redlining or Authoring Mode

If you use the Import wizard in Redlining mode (the default setting), you must specify a change order to import items, BOMs, AMLs, and prices. Redlining mode, as its name implies, highlights in red any fields that have changed. All items and prices imported in Redlining mode are placed on the Affected Items and Affected Prices tabs of the specified change order.

For released items and prices, the Import wizard redlines data based on changes made to the latest *released* revision. For prices, the Import wizard doesn't allow you to redline the Price Lines table if the price object has a pending revision.

When you import items in Redlining mode, all items are unconditionally added to the Affected Items tab of the selected change order. The Import wizard does not allow you to interactively select which items should be placed on the Affected Items tab.

When you make changes to a BOM, Manufacturers, or Price Lines table in Redlining mode, entire rows and partial rows can be redlined. If you add or remove a row, the entire row is treated as a redline addition or deletion. If you modify only a few fields in a row but do not update its key fields, the Import wizard redlines only the fields you have changed. For example, if you modify some BOM fields but don't modify the **BOM > Item Number** field, then the row is partially redlined.

If you use the Import wizard in Authoring mode, you can update an existing BOM, AML, or price line if the parent item or price is unreleased and does not have a pending change. Authoring mode is helpful when you are importing BOM, AML, or price line data for preliminary items or prices. Once an item or price has a pending change, you can no longer use Authoring mode to update its BOM, AML, or price lines.

For information to set the Change Mode preference to Redlining or Authoring modes, see Setting Business Rule Options on page 46.

Selecting a Change Order

On the Select Change Order and Mapping File step of the Import Wizard, you can specify a change order to use for the import session. In Redlining mode, a change order is required to import items, BOMs, AMLs, prices, and price lines. In Authoring mode, a change order is optional.

Click **Details** to select a change order. The Select Change For Import window appears. This new window is another step in the Wizard that lets you specify the change order to use for the current import session. You can search for an existing change order or create a new ECO, MCO, SCO, or PCO, or a change order of a similar user-defined subclass.

Note If you search for an existing change order, make sure it is in a non-released state. If you're importing prices in Redlining mode, search the PLM system to see if there is a pending PCO for the price object. If there is already a pending PCO associated with a price, you cannot add the same price object to a different PCO.

BOM, AML, and Price Lines Rollbacks

To preserve the integrity of BOMs, AMLs, and Price Lines imported to the PLM system, the Import Wizard doesn't allow you to import partial import data to a new revision. If a BOM, AML, or Price Line row cannot be imported because it is invalid, the revision is rejected and the Import Wizard rolls back the entire table to its original state prior to the import session.

During BOM, AML, and Price Lines rollbacks, parent items and prices are not removed from the **Affected Items** or **Affected Prices** tabs of the specified change order. Also, changes made to Title Block, Page Two, or Page Three fields are unaffected by rollbacks.

If a fatal error (for example, a database error) occurs while you are importing to a new revision of an item, the Import Wizard rolls back the revision. Despite the rollback, any child items automatically created during the import process are not removed; they remain in the PLM system.

If you import a BOM, AML, or Price Lines table to the latest revision and a validation error occurs, the replacement table is rejected.

If a fatal error occurs while you are importing BOMs, AMLs, or Price Lines to the latest revision, any replacement tables that were accepted before the error occurred cannot be rolled back. If this happens, try importing to the latest revision again.

If there are existing redlines for a pending Change order, the Import Wizard clears them before importing new redline data from the import file. The clearing of redlines and the importing of new data are separate operations. After the redlines are cleared, the transaction is committed, and then the import process starts. Therefore, if the import operation fails for any reason (such as a duplicate item number), the table rolls back to its pre-redlined state.

The following table shows how import errors affect released BOMs, AMLs, and Price Lines tables:

Revision	Type of Error	Result
New revision – importing a new revision to the parent item or price	Validation error	The new revision and the related BOM, AML, or Price Lines table rejected.
	Fatal error	The new revision and the related BOM, AML, or Price Lines table are rolled back.
Current revision – importing changes to the current revision of the parent item or price	Validation error	The replacement BOM, AML, or Price Lines table is rejected.
	Fatal error	Any replacement BOM, AML, or Price Lines tables imported before the fatal error cannot be rolled back.

Note The Import Wizard rolls back BOM, AML, or Price Lines data only when there are errors with the data. It does not roll back BOMs, AMLs, or Price Lines if the warnings or errors pertain only to associated objects, such as fields for items, manufacturers, manufacturer parts, and prices.

Importing Site-specific BOMs and AMLs

You can import site-specific BOMs and AMLs from all supported import file formats. However, you must format the site-specific data appropriately and map the fields correctly. In particular, you must include the following:

- **Title Block > Sites** field for the parent item
- **Compliance > Compositions > Bill of Substances** field for item supported tables
- **BOM > Site** field for BOMs
- **Manufacturers > Site** field for AMLs

The **Title Block > Sites** field is a virtual field that represents the list of sites on the Sites tab of an item. You do not need to map the **Title Block > Sites** field to import BOMs or AMLs. If you don't map the field, the Import Wizard assumes that the value for **Title Block > Sites** is the complete list of site names specified for **BOM > BOM Site** or **Manufacturers > Site** in your source file.

Note The Import Wizard does not remove site associations from existing parent items. That is, although you can add sites to the **Title Block > Sites** field, you cannot use the Import Wizard to remove sites from the Sites tab of an item.

When you import site-specific BOMs and AMLs, the Import Wizard imports data only for sites specified in your source file. If your source file does not include a particular site already specified for an existing item, the Import Wizard will not update that section of the site-specific BOM or AML.

Note You can import Substances to the Bill of Substances tables for Declarations, Manufacturer Parts, and Item from aXML files only.

The following figure shows a BOM import source file with site-specific information. There are two

columns with site information: Item Sites and BOM Site.

	A	B	C	D	E
1	**Parent Item**	**Item Sites**	**BOM Item**	**Qty**	**BOM Site**
2	P0001	San Jose, Bangalore, Taipei	B0001	1	
3	P0001	San Jose, Bangalore, Taipei	B0002	1	
4	P0001	San Jose, Bangalore, Taipei	B0003	1	
5	P0001	San Jose, Bangalore, Taipei	B0004_Site	1	San Jose
6	P0001	San Jose, Bangalore, Taipei	B0005_Site	1	Bangalore

The Item Sites column is mapped to the **Title Block > Sites** field in the mapping window. It contains a comma-delimited list of the sites with which the parent part is associated.

The columns BOM Item, Qty, and BOM Site pertain to BOM components. The BOM Site column is mapped to the **BOM > Site** field in the mapping window. It indicates the site to which a component applies. Each row in this column can contain only one site. If the BOM Site field is empty, the component is used for all sites.

In the preceding figure, B0001, B0002, and B0003 do not have a specified BOM site. Consequently, those BOM components are common to all sites. B0004_Site has San Jose as the BOM site. This means that B0004_Site applies only to the portion of the BOM specific to the San Jose site.

The following figure shows an AML import source file with site-specific information. There are two columns with site information: Item Sites and Mfr Site.

	A	B	C	D	E
1	**Parent Item**	**Item Sites**	**Mfr Name**	**Mfr Part**	**Mfr Site**
2	P0001	San Jose, Bangalore, Taipei	MARTEX	MPD914T	
3	P0001	San Jose, Bangalore, Taipei	MOTOROLA	MPD914LT1	
4	P0001	San Jose, Bangalore, Taipei	PHILIPS/SIG	MPD914T/R	
5	P0001	San Jose, Bangalore, Taipei	ZETEX	MPD914TA	San Jose
6	P0001	San Jose, Bangalore, Taipei	PS DIODES	MP007W	Bangalore

The Item Sites column, like the same column in the BOM import source file discussed previously, is mapped to the **Title Block > Sites** field in the mapping window.

The columns Mfr Name, Mfr Part, and Mfr Site are related to approved manufacturers. The Mfr Site column is mapped to the **Manufacturers > Site** field in the mapping window. It indicates the site to which an approved manufacturer applies. Each row in this column can contain only one site. If the Mfr Site field is empty, the approved manufacturer is used for all sites.

In the preceding figure, ZETEX has San Jose as the Mfr Site. This means that this approved manufacturer applies only to the portion of the AML that is specific to the San Jose site.

Note If you use an SCO to import site-specific BOMs and AMLs in Redline mode, you can specify only one site per BOM/AML. BOMs or AMLs with multiple sites will be rejected.

Importing Agile Product Governance & Compliance Data

Agile PG&C has several different declaration classes. Based on the declaration class and the type of source file, there are restrictions on the tables that you can import.

Declaration Types, Supported Tables, and Importable Objects

The following table lists the PG&C-related objects that you can import. For more information on these objects and applicable procedures, refer to the *Importing and Exporting Data* section of the *Agile Product Governance & Compliance User Guide*.

Declaration Type	Supported Tables	
	aXML File Types	Delimited Text or Excel File Types
Declaration[1]	Cover Page, Page Two, Page Three, Items[1], Manufacturer Parts, Part Groups, Item Bill of Substances[2], Manufacturer Part Bill of Substances[2], Part Group Bill of Substances[2], Specifications, Attachments	Cover Page, Page Two, Page Three, Item[1], Manufacturer Parts, Part Groups, Specifications
Supplier Declaration of Conformance	Cover Page, Page Two, Page Three, Specifications, Attachments	Cover Page, Page Two, Page Three, Specifications
Part Declaration	Cover Page, Page Two, Page Three, Items, Manufacturer Parts, Part Groups, Specifications, Attachments	
Homogeneous Material Declaration	Cover Page, Page Two, Page Three, Items, Manufacturer Parts, Part Groups, Item Bill of Substances, Manufacturer Part Bill of Substances, Part Group Bill of Substances, Specifications, Attachments	Cover Page, Page Two, Page Three, Items, Manufacturer Parts, Part Groups, Specifications
IPC 1752-1 Declaration	Cover Page, Page Two, Page Three, Items[1], Manufacturer Parts, Part Groups, Item Bill of Substances[2], Manufacturer Part Bill of Substances[2], Part Group Bill of Substances[2], Specifications, Attachments	Cover Page, Page Two, Page Three, Item[1], Manufacturer Parts, Part Groups, Specifications
IPC 1752-2 Declaration	Cover Page, Page Two, Page Three, Items[1], Manufacturer Parts, Part Groups, Item Bill of Substances[2], Manufacturer Part Bill of Substances[2], Part Group Bill of Substances[2], Specifications, Attachments	Cover Page, Page Two, Page Three, Item[1], Manufacturer Parts, Part Groups, Specifications
JGPSSI Declaration	Cover Page, Page Two, Page Three, Items[1], Manufacturer Parts, Part Groups, Item Bill of Substances[2], Manufacturer Part Bill of Substances[2], Part Group Bill of Substances[2], Specifications, Attachments	Cover Page, Page Two, Page Three, Item[1], Manufacturer Parts, Part Groups, Specifications
Substance Declaration	Cover Page, Page Two, Page Three, Items[1], Manufacturer Parts, Part Groups, Item Bill of Substances[2], Manufacturer Part Bill of Substances[2], Part Group Bill of Substances[2], Specifications, Attachments	Cover Page, Page Two, Page Three, Item[1], Manufacturer Parts, Part Groups, Specifications
Item	Title Block, Page Two, Page Three, BOM, Manufacturers, Sites, Compliance > Specifications[3], Suppliers,	Title Block, Page Two, Page Three, BOM, Manufacturers, Sites,

Declaration Type	Supported Tables	
	aXML File Types	Delimited Text or Excel File Types
	Attachments, Compliance > Composition, Compliance > Bill of Substances[3]	Compliance > Specifications[4], Suppliers[5]
Manufacturer Part	General Info, Page Two, Page Three, Compliance > Specifications, Compliance > Compositions > Bill of Substances[2], Suppliers[4], Attachments, Compliance > Composition, Compliance > Bill of Substances[3]	General Info, Page Two, Page Three, Compliance > Specifications, Suppliers[5]
Part Group	General Info, Page Two, Page Three, Parts, Compliance > Specifications[3], Suppliers, Attachments	General Info, Page Two, Page Three, Parts, Compliance[4]> Specifications[3], Suppliers
Specification	General Info, Page Two, Page Three, Substances[5] Attachments	General Info, Page Two, Page Three, Substances[2]
Substance	General Info, Page Two, Page Three, Composition, Attachments	General Info, Page Two, Page Three

Notes:

1. If you don't map the **Items > Item Rev** field, the latest modified ECO or MCO of the latest released revision of the item is imported. If revision is specified, then the latest released modified ECO or MCO of the specified revision is imported. When the item has multiple revisions, use "Introductory" instead of revision to import the introductory revision of the item into the declaration. If the item doesn't have a released revision, then the Introductory revision is imported.
2. Substances can be imported to the Bill of Substances tables for Declarations, Manufacturer Parts, and Items from aXML files only. This integration is supported if you have Agile Product Interchange, which allows you to retrieve Item and Bill of Substances information from external content sources.
3. Specifications can be imported into the Compliance table of Items, Manufacturer Parts, and Part Groups. Note that, Specification, Supplier, Compositions, and Bill of Substances that are imported into Item are Change Number specific.
4. Compositions, Bill of Substances and/or Supplier, and Specifications are version specific. To import them, you must specify the change number in the source file. You can't import these four tables as you do BOM, AML, Site, or Attachments tables, because to import them, you must Redline them first. It is also necessary to specify the change number in the import file. You can import specifications and suppliers into Item using comma-delimited (CSV) or Excel format. To import Compositions and Bill of Substances, you must import them in the aXML format.
5. Only Substances that belong to the Substance Groups or Substances class are added to the Substances table of specifications. Subparts and materials will not add to specifications. Only substance groups and substances are added to specifications.

Several Agile PG&C objects, including items, have Mass fields. For information about importing data to Mass fields, see Importing Mass Values on page 19.

For a list of Agile PG&C fields that must be mapped to be imported, see Key Fields and Required Fields on page 105.

Importing Attachments from aXML and PDX Packages

You can import attachments—such as CAD drawings, images, and documents—from a PDX package or an aXML file. Attachments are usually binary files, sometimes quite large. Consequently, they cannot be imported from a text file. The following table shows the objects for which you can import attachments from PDX and aXML files.

Object	Attachments in PDX	Attachments in aXML
Item	Yes	Yes
Manufacturer	Yes	Yes
Manufacturer Part	Yes	Yes
Price	Yes	Yes
Substance		Yes
Declaration		Yes
Specification		Yes
Part Group		Yes
Product Service Request		Yes
Quality Change Request		Yes

When you import a BOM or an AML, attachments are not automatically imported for the associated items, manufacturers, and manufacturer parts; you must explicitly import them.

Importable Attachment Fields

The following fields can be imported to the Attachments tab:

- **File Description**
- **File Name**

aXML and PDX packages also support custom fields on the Attachments tab. If the Agile PLM administrator enables Attachments fields such as Text01, List01, and Numeric01 by making them visible, you can import data into them.

Importing the Latest Version of Attachments

The Import Wizard always imports the latest version of attachments. For example, if an item has attachments **Rev A version 1**, **Rev A version 2**, and **Rev B version 1**, then **Rev A version 2** and **Rev B version 1** are imported.

Items can have multiple revisions with different attachments for each revision. For example, suppose there is an item with three revisions, A, B, and C. Each revision can have different attachments and different versions of those attachments.

For example, say you import attachments for each revision in five separate import sessions:

Session 1: Revision A with File 1 Version 1

Session 2: Revision A with File 1 Version 2

Session 3: Revision B with File 1 Version 3

Session 4: Revision C with File 1 Version 4

Session 5: Revision C with File 1 Version 5 and File 2 Version 1

After completing the five import sessions, the following table shows the attachments that would be visible for each revision.

Revision	Attachments
Rev A	File 1 Version 1, File 1 Version 2
Rev B	File 1 Version 3
Rev C	File 1 Version 4, File 1 Version 5, File 2 Version 1

URL Attachments

You can attach a Uniform Resource Locator (URL) instead of an actual file. A URL is the address of a file on the Internet, which means the file is not secured on the Agile file management server and can be modified without the knowledge of the Agile application. URL attachments have a file size of 0 bytes and cannot be checked out from the file management server. Similar to files, you can also import URLs.

Attachments and Rollback of Parent Items

If for some reason an attachment is not imported, its parent object (an item, manufacturer, or manufacturer part) is not rolled back.

Transforming Values for Attachments

Do not use a transformation definition file to modify attachment filenames. Otherwise, the Import wizard will fail to import the files.

Importing Multiple-file (Folder) Attachments

PDX supports multiple-file attachments. In previous versions of Agile software, multiple-file attachments were represented as a folder. When you import an attachment folder from a PDX package, the Import wizard imports each file in the folder as a separate attachment.

Attachment Redlines

The Agile PLM system supports attachment redlines, that is, annotation layers added to the file. Attachment redlines cannot be imported. Only the attached file and its associated fields can be imported.

Using Special Export and Import Commands to Complete Declarations

Declaration classes have special export and import commands that let suppliers integrate the data with other Agile PLM systems or complete the compliance request form in other clients, such as Microsoft Excel or Adobe Reader. The following table lists these export and import commands.

Class(es)	Commands	Description
All Declaration classes	Export AXML Import AXML	Exports and imports Agile XML for integration with Agile PLM systems.
IPC 1752-1 Declaration IPC 1752-2 Declaration	Export IPC XML Import IPC XML	Exports and imports XML data that can be used to complete IPC-1752-1 and IPC-1752-2 data compliance request forms.
JGPSSI Declaration	Export JGPSSI Import JGPSSI	Exports and imports a text file in block format for integration with the JGPSSI Excel template.
	Open In Excel	Opens the Declaration in Microsoft Excel.

Note The commands in the table above are enabled by process extensions that are assigned to Declaration classes. If the commands are not available, your Agile PLM system has a custom configuration.

The data format for these special export and import commands is predefined by Agile's aXML format, the JPGSSI template, and the IPC-1752-1 and IPC-1752-2 forms. For more information about these commands, refer to the *Product Governance & Compliance User Guide*.

Importing Attachments from an Agile Package

An Agile package is an object that has files and documents describing a proposed product. You can route an Agile package, to other Agile users, including supply-chain partners.

Once an Agile package is reviewed and approved by the approvers and accepted by the program manager, the program manager can process the Agile package data using the internal procedures specific to your company. When the package is accepted, its attachments that are PDX files or delimited text files can be imported into your Agile PLM system.

To import an attachment from an Agile package:

1. Open the Agile package in Web Client.
2. Click the **Attachments** tab.
3. Select an attachment (either a PDX file or a delimited text file).
4. In the More actions menu 

select the **Import option**.

Note The Import button is enabled only when the package is released. For the default package workflow, the released status is called Accepted.

5. A message box appears. Click **OK**.
6. The Import Wizard appears. Follow the steps in the Wizard.

Chapter 6

Importing Supplier and System Data

This chapter includes the following:

Importing Suppliers

You can collaborate with external suppliers to gather and prepare product content. Suppliers also negotiate pricing and directly respond to Requests for Quotes (RFQs).

The following two fields are required to import suppliers:

- **Suppliers > General Info > Name**
- **Suppliers > General Info > Corporate Currency**

The **Suppliers > General Info > Number** field is a key field, but it does not need to be mapped.

If you don't map the **Suppliers > General Info > Number** field, the Import wizard uses the supplier name to find an existing supplier. If the supplier name matches the names of multiple existing suppliers, the Import wizard rejects the row. If no supplier with that name exists, the Import wizard creates a new supplier and uses the AutoNumber preference to assign a number to it. For more information, see Setting Default AutoNumber Sources.

In the source data, make sure you specify the supplier type. There are five out-of-the-box supplier types, but you can add more to your Agile PLM system. The five supplier types are:

- Broker
- Component Manufacturer
- Contract Manufacturer
- Distributor
- Manufacturer Representative

The **Suppliers > General Info > Maximum Number of Licensed Contact Users** and **Suppliers > General Info > Maximum Number of Power Contact Users** fields specify the maximum number of contact users and power users that can be added to the supplier organization, respectively. Both contact users and power users can respond to RFQs, but only power users can generate and view reports.

Currency values for the **Corporate Currency** field must be specified using a three-letter code. For more information, see Importing Currency Values.

Importing Supplier Manufacturer and Commodity Offerings

A supplier's manufacturer offerings define which manufacturer's products are sold by the supplier. For example, a supplier called ACME might sell Motorola and Kemet products. When you import manufacturer offerings, the Import Wizard validates the manufacturer name against existing manufacturer names in the PLM system. If the manufacturer doesn't exist, the Import Wizard rejects the offering.

The following fields are required to import supplier manufacturer offerings:

- **Suppliers > General Info > Name**
- **Suppliers > General Info > Corporate Currency**
- **Suppliers > Manufacturers > Mfr. Name**

The **Suppliers > General Info > Number** field is a key field, but it does not need to be mapped. If you do not map the **Number** field, the Import Wizard uses the AutoNumber preference to assign numbers to new suppliers. For more information, see Setting Default AutoNumber Sources.

A supplier's commodity offerings define the product categories sold by the supplier. For example, a supplier called ACME might sell commodities like fuses, integrated circuits, and resistors. When you import a supplier's commodity offerings, the Import Wizard validates the commodity name against existing commodity names in the PLM system. If the commodity doesn't exist, the Import Wizard rejects the offering.

The following fields are required to import supplier commodity offerings:

- **Suppliers > General Info > Name**
- **Suppliers > General Info > Corporate Currency**
- **Suppliers > Commodities > Commodity**

Once again, the **Suppliers > General Info > Number** field is a key field, but it does not need to be mapped. If you do not map the **Number** field, the Import Wizard uses the AutoNumber preference to assign numbers to new suppliers.

You can import either the **Ship-To** location or geographical values (**Continent**, **Country/Area**, and **Region/Province/State** fields) for each offering.

Only valid **Ship-To** locations can be specified. Otherwise, the offering is ignored. The **Ship-To** value can consist of multiple delimited locations (for example, "Milwaukee, Nagoya, Taipei"). If multiple **Ship-To** locations are specified for a particular row, multiple offerings are created when you import the file.

> **Note** The PLM administrator can define valid **Ship-To** locations by logging to Java Client and choosing **Admin > System Settings > Product Cost Management > Ship To Locations**.

Offerings can be given a rating for each **Ship-To** location. This rating allows the buyer to describe their relationship with the supplier and a specific offering. Although suppliers have restricted access to the PLM system, they do not have privileges to view the assigned ratings.

By default, there are four possible values for the **Rating** field:

- Approved
- Offered Active
- Offered Inactive
- Strategic

Note The PLM administrator can configure the available values for the Rating field by logging to Java Client and choosing **Admin > Data & Workflow Settings > Lists > Supplier Offering Rating**.

Importing Offerings and Ratings in One Operation

To import supplier offerings and ratings in one operation, you must provide either the **Ship-To** location or geographical values for the offering. Again, only valid **Ship-To** locations can be specified.

If a row in the source data includes a **Ship-To** value and it corresponds to a valid **Ship-To** location that has not yet been associated with the supplier, the Import wizard creates a new offering with the **Ship-To** value and the **Rating** value (if provided). If the specified **Ship-To** location is already associated with the supplier, the Import wizard updates the **Rating** field (if provided). If the specified **Ship-To** location isn't valid, the entire row is rejected.

If a row in the source data doesn't include a **Ship-To** value but does include geographical values (**Continent**, **Country/Area**, and **Region/Province/State** fields), the Import wizard creates an offering and automatically associates the appropriate **Ship-To** locations with it. However, the following rules apply:

- The **Continent** value is required. If values for **Country/Area** or **Region/Province/State** fields are blank or missing, the default value "All" is used, which results in a broad offering.
- Only single values can be imported for each geographical value. Multiple delimited values (for example, "Arizona, California, Texas") are not supported.

Note When you create an offering, make sure the geographical data you specify isn't narrower than an existing offering for the same manufacturer or commodity. For example, if the **Region/Province/State** field for an existing offering is set to "All," you can't create a new offering for the same manufacturer or commodity with the **Region/Province/State** field set to "California" because the existing offering covers a broader region.

Importing Supplier RFQ Responses

Suppliers that quote on items in an RFQ can export items to prepare a response. When a supplier exports items, the Agile PLM system generates a comma-delimited text file. The exported supplier response file is named *RFQNumber*.csv. Suppliers can use a spreadsheet program, such as Microsoft Excel, to edit the file. They can also use a quoting tool to complete responses offline. After suppliers complete the fields in a response file, they can import the file back into the Agile PLM system to send the response to the sourcing manager.

Unlike other types of objects that you can import, supplier responses do not require that you map import fields to Agile PLM fields. Since the response is a modified version of the exported text file, the mapping is automatic.

To import a supplier response:

1. Select an RFQ.
2. Click the **Responses** tab.
3. Choose **Responses > Import**. The Import wizard appears.
4. Click **Browse**, select the file, then click **Open**.
5. Click **Import**.

Importing Responses from Non-Web Suppliers

If a supplier does not have Web access to the Agile PLM client, the sourcing manager can import the supplier's response file. Since the response is a modified version of the exported text file, the Import Wizard maps response fields automatically.

To import an RFQ response from a non-Web supplier:

1. Select an RFQ.
2. Click the **Response Status** tab.
3. Select a non-Web supplier.

   Note Non-Web suppliers are indicated by the  icon.

4. Click **Import**. The Import Wizard appears.
5. Click **Browse**, select the file, then click **Open**.
6. Click **Import**.

Guidelines for Editing Supplier Response Fields

To successfully import a supplier response text file, you must follow these guidelines when you edit the file:

- You can reorder column headings, but do not edit or add any data to the headings. If you modify column headings, the file cannot be imported.
- Do not add new columns of data.
- Do not modify any date fields except for **EOL Date** and **Expiration Date**.
- Do not enter values in any fields with the comment "do not fill out." Those fields are not supposed to contain data, and the "do not fill out" comment is intended to prevent you from editing the fields. For component parts, **Nonmaterial Price** fields should not be filled out. For assembly items, **Material Price** fields should not be filled out.

- A required field has an asterisk (*) to the right of its column heading. In the following figure, all columns shown are required.

	AM	AN	AO	AP	AQ	AR	AS
22	Min *	Mult *	Lead Time (days) *	Inventory *	Terms of Sale *	Country of Origin *	NCNR *
23	4	6	27	97	CFR - COST AND FREIGHT	United States	No
24		6	7	29	CFR - COST AND FREIGHT	United States	No
25	7	5	38	24	CFR - COST AND FREIGHT	United States	No
26	9	2	57	39	CFR - COST AND FREIGHT	United States	No
27	4	8	39	31	CFR - COST AND FREIGHT	United States	No
28	3	9	66	61	CFR - COST AND FREIGHT	United States	No
29	8	2	63	57	CFR - COST AND FREIGHT	United States	No
30	1	7	86	29	CFR - COST AND FREIGHT	United States	No

  If you fail to complete all required fields, you can still successfully import the file. However, you won't be able to send the response to the sourcing manager. Required and requested fields are specified by the sourcing manager that set up the project.

- Empty fields are not imported. They are not equal to **0**. To set a numeric field or a price field to 0, you must explicitly enter the value **0**.

- If you prefer, you can remove the <HEADER> section at the top of the file since it is not imported. To remove this section, make sure you remove the two rows containing the <HEADER> and </HEADER> tags and all rows in between.

- When you import the supplier response file, the imported data replaces existing response field data.

When you edit a supplier response file, make sure you edit only fields you are allowed to edit. Generally, this means the **Bid Decision** field and fields to the right of it. Other fields are for viewing only.

You can import the supplier response file multiple times. Each time you import the file, only the editable fields are imported, replacing the previous values. The fields that appear in a supplier response file depend on whether the sourcing manager specified them as requested and required.

The Agile PLM system supports different price scenarios, so RFQ fields vary based on the price periods and/or quantity breaks specified for a particular project. Prices can be based on multiple quantity breaks (up to 6) or on multiple price periods, with one or more quantities per price period. The following table shows all editable and non-editable supplier response fields.

Field	Editable?
Adder1	Yes
Bid Decision	Yes
Country of Origin	Yes
EOL Date	Yes
Expiration Date2	Yes
Inventory	Yes
Item Number	

Field	Editable?
Item or Mfr Part Description	
Lead Time	Yes
Material Cost	Yes
Min	Yes
Mult	Yes
Mfr Name	
Mfr Part Number	
NCNR	Yes
Nonmaterial Price1	Yes
NRE	Yes
Period Start Date Quantity Break 1...6 - Quantity2	
Period Start Date Quantity Break 1...6 - Target Price3	Yes
Quantity Break 1...63	
Response Flex Fields1, 3	Yes
RFQ Number	
Rev	
Terms of Sale	Yes
UOM	

Notes:

1. This field can be configured by the sourcing manager. Consequently, it may have a different display name.
2. The availability of this field depends on the price scenario selected for a particular project.
3. There are 25 response flex fields that can be configured and enabled in the Agile PLM system: 5 date fields, 10 text fields, 5 number fields, and 5 currency fields.

Adding Suggested Alternate Parts to the Response File

Suppliers are often requested to quote on parts they are unable to supply for various reasons. For example, the part may be obsolete, on allocation, or have an End of Life (EOL) status. The part may also be unnecessarily expensive, or perhaps the supplier doesn't have the full quantity available within the required lead time. To remedy this problem, the supplier can suggest alternate parts in the RFQ response.

When you suggest an alternate part, you can also suggest new manufacturers for the part, including manufacturers the sourcing manager did not consider.

To add suggested alternate parts to the RFQ response:

1. Open the exported response file in a spreadsheet program (such as Microsoft Excel) or another application that supports comma-delimited files.
2. Insert a row for the part you wish to replace.
3. Enter appropriate values in the **Mfr Part Number**, **Mfr Name**, and **Item or Mfr Part Description** fields. The value in the **Item Number** field must be identical to the part you're replacing. In the **Bid Decision** field, enter **Bid - Alternate**. Leave the **Rev** and **UOM** fields blank; those fields are inherited from the parent item. Fill out other fields as appropriate.

   You can insert additional rows to suggest more alternate parts.
4. Save the file in comma-delimited (CSV) format.

Importing Responses to Price Scenarios

Supplier response files display price scenarios horizontally. The supplier can therefore fill out all response information for each component part on a single row.

Each price scenario represents either one quantity break or one quantity per price period. The following table shows quantity breaks and target prices that have been entered for one period for several different items.

Item Number	Q 4 30-Dec-2002 QuantityBreak1 - Quantity	Q 4 30-Dec-2002 QuantityBreak1 - Target Price
10-007	1	0.04
10-008	10	12.80
10-009	1	0.04
10-010	10	16.60
10-011	1	0.04
10-012	1	0.09
10-013	5	2.95
10-014	100	122.00

The Import Wizard ignores empty fields. To set a price value to **0**, you must explicitly enter 0.

Price values in the exported supplier response file are formatted according to the user's currency preference. To change your Agile user preferences in the Web Client, click **Settings > User Profile > Preferences > Edit**.

Valid Values for Supplier Response Fields

Certain supplier response fields require specific values that must be spelled correctly. If you type an invalid value in the field, it won't be imported. The following table shows the valid values for the supplier response fields that require specific values.

Note The header for the supplier response file also lists values for these fields.

Field	Valid values	Note
Bid Decision	Bid, Bid - Alternate Part, No Bid - Non-Franchise, No Bid - Obsolete Part, No Bid - On Allocation, No Bid - Other, No Bid - Unknown Part, Not Responded	
Country of Origin		Enter a valid country name. Make sure the spelling is correct.
NCNR	Yes, No	
Terms of Sale	CFR	Cost and Freight
	CIF	Cost, Insurance, and Freight
	CIP	Carriage and Insurance Paid To
	CPT	Carriage Paid To
	DAF	Delivered at Frontier
	DDP	Delivered Duty Paid
	DDU	Delivered Duty Unpaid
	DEQ	Delivered Ex Quay (Duty Paid)
	DES	Delivered Ex Ship
	EXW	EX Works
	FAS	Free Alongside Ship
	FCA	Free Carrier
	FOB	Free on Board Vessel

In addition to the three-letter abbreviations for **Terms of Sale**, you can enter the full **Terms of Sale** value, for example, "CFR - COST AND FREIGHT" or "CIF - COST, INSURANCE AND FREIGHT." The value must be all uppercase.

Importing a Currency Conversion Table

Agile allows you to maintain up-to-date currency conversion rates that convert currency values to the selected corporate currency. You can use the Import wizard to update the conversion rates for all currencies enabled in the Agile PLM system. To import a currency conversion table, you must log in as a user assigned the Administrator role.

The currency conversion table that you import must meet the following requirements:

- It must be either a Microsoft Excel file or a delimited text file.
- The file should have two columns containing the currency code and the conversion factor.
- Each currency specified in the source file must be enabled in the Agile PLM system. To check which currencies are enabled, log into the Java Client as an administrator and choose **Admin > System Settings > Product Cost Management >** Currency **Exchange Rates**.
- Currencies must be specified using three-letter codes. For example, EUR and USD are the codes for the Euro and the U.S. Dollar, respectively. For a complete list of currency codes, see Importing Currency Values.

Make sure you map the following Agile fields:

- **Currency Conversion > Currency Exchange Rates > Currency Code**
- **Currency Conversion > Currency Exchange Rates > Conversion Factor**

The following figure shows an example of a currency conversion table:

	A	B
1	**Currency Code**	**Conversion Factor**
2	GBP	0.71
3	FRF	0.82
4	RUR	160.1
5	SGD	2.2
6	INR	47.17
7	JPY	78.05

To import a currency conversion table:

1. Format the source file appropriately using either a Microsoft Excel file or a delimited text file.
2. Start the Import wizard.
3. On the first step of the Import wizard, select **Delimited Text File** or **Excel Workbook**.
4. Type the path of the file, or click **Browse** to select it.
5. Click **Next**.
6. Select **Currency Conversion**. Click **Next**.
7. Select a mapping file, or create new field mappings.
8. Click **Import** to begin the import operation.

Chapter 7

Importing Data into a Sourcing Project

This chapter includes the following:

About Sourcing Projects

A project holds data you gather during product sourcing activities. Buyers can use projects to gather information to prepare RFQs, assign suppliers, track and analyze responses, and negotiate final pricing. Buyers can also perform cleanup of AMLs in a project and publish them to the Item Master, where they are available for all future projects.

You can create a project using one of the following price scenarios:

- **Quantity Breaks** — prices are based on multiple quantity breaks to determine the best suppliers and components for a product.
- **Effectivity Periods** — prices are based on multiple effectivity periods, with one or more quantities per period, to manage the ongoing cost of products throughout a product's lifecycle. This price scenario provides forward-looking visibility into product costs to help you uncover opportunities to reduce costs and meet targets.

Starting the Import Wizard from a Sourcing Project

Project objects, such as items, BOMs, and AMLs, are different from Item Master objects. They have different sets of fields, and therefore different field mappings, than Item Master objects. When you import items into a project, they are not imported automatically into the Item Master.

Note After you import BOMs into a project, you may need to recalculate quantities for BOM components. For more information, see Calculating Rollup Quantities on page 103.

To import items and BOMs into an existing sourcing project:

1. Open a sourcing project.
2. Click the **Items** tab.
3. Choose **More > Import**. The Import Wizard appears. Follow the Wizard steps.

Note If items you are importing have both BOMs and AMLs, you can import them at the same time.

To import Items and AMLs into an existing sourcing project:

1. Open a sourcing project.
2. Click the **AML** tab.
3. Choose More **> Import**. The Import Wizard appears. Follow the Wizard steps.

For a list of the Import Wizard steps, see Import Wizard Steps on page 6.

Importing Level Templates and Parent-Child Templates into Sourcing Projects

You can import a Level Template or a Parent-Child Template into Sourcing Projects as follows:

- Create a Sourcing Project using the Wizard and then import the desired template
- Search for an existing Sourcing Project and then import the Level Template or Parent-Child Templates into the Sourcing Project
- Import an Item from an external file

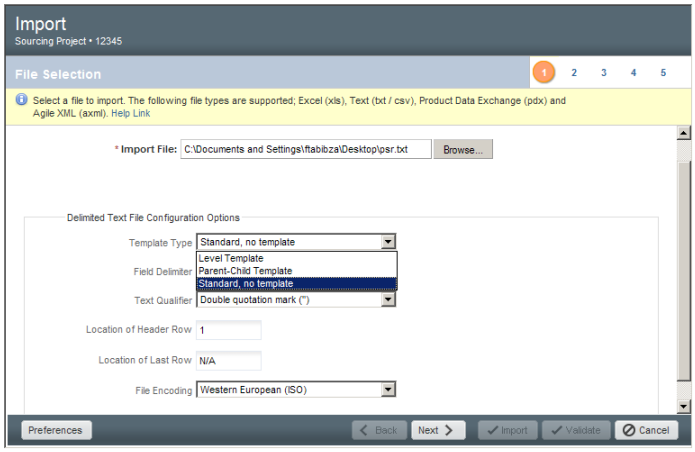
To import a Level or Parent-Child Template into a Sourcing Project:

1. Open a sourcing project.
2. Click the **Items** tab.
3. Select **More > Import**.

   The Import Wizard dialog appears.

   Note Level Templates or Parent-Child Templates are Delimited Text Files.

4. Use the **Browse** button to locate and select the file that you want to import.
5. In Delimited Text File Configuration Options click the drop-down arrow in Template Type field to display templates and select template type.



Calculating Rollup Quantities

After you import data into a sourcing project, you need to calculate the quantities for BOM components. At the top of the **Items** and **AML** tabs of a project, it shows the date and time when quantities were last calculated. When the calculated date and time is red, you need to click  to recalculate quantities.

Within a sourcing project, you specify quantities for top-level assemblies, not for BOM components. For BOM components, you specify quantities per assembly (QPA).

For each price scenario in your project, component level quantities are based on the assembly quantities and the QPA. When you calculate quantities, the project aggregates the quantities across assemblies for common items. If partner splits have been specified, the project also applies the splits to the calculated quantities.

Types of Data You Can Import into a Project

You can import the following object types into a project:

- Project items
- Project bills of material
- Project approved manufacturers lists
- Project item attachments

An assembly item is any item that has a BOM. Any project items that have a BOM can also have an AML. You can import a BOM and an AML into the same project item.

Publishing AMLs from a Project to the Item Master

Although you can import product content from the Item Master into a project, you cannot copy items and bills of material from a project into the Item Master. Approved manufacturers lists (AMLs), however, are different. You can validate AMLs in a project against the Item Master. You can also perform cleanup on AMLs in a project. After you finish cleaning up an AML, you can publish the AML changes back to the Item Master.

Mapping and Importing Quantity Breaks and Target Costs

Depending on the price scenario specified for a particular project, you can import multiple quantity breaks per item, or multiple effectivity periods per item with one or more quantities per period. This means that you can import quantity breaks or quantities per price period for each top-level assembly. You can also import the target cost per quantity break or target cost per price period, depending on the price scenario you select.

If the project's price scenario is based on quantity breaks, you can select up to six quantity breaks. The Edit Mapping File window lets you map **Cover Page > QuantityBreak** fields for the number of quantity breaks in your project.

If the project's price scenario is based on multiple effectivity periods, the Edit Mapping File window lets you map the quantity breaks and the target costs for each specified period.

How Projects Handle Revisions

Projects do not hold multiple revisions of items. Consequently, you can import preliminary, pending, and released revisions of an item into a project. If you reimport an item, it replaces the previous item in the project. This means that you can import preliminary items as well as back, current, or pending revisions to replace released or unreleased revisions in a project.

Important	When you reimport an item into a project, all data for the original item (such as BOMs and AMLs) are removed before the new data is imported. Therefore, you should always export complete BOMs and AMLs before updating the data and then reimport the data. Also, make sure you map the **Title Block > Rev** field when you import items. Otherwise, items will be imported as an Introductory revision.

Chapter 8

Mapping Import Fields to Agile Fields

This chapter includes the following:

About Mapping Files

When you import data into the PLM system, you must indicate where to put the data. You do this in the Import Wizard by mapping fields in the source data to Agile fields. Only mapped fields are imported. The Import Wizard ignores any source fields that are not mapped.

Mapping files are XML files that can be reused to map data for subsequent import sessions. You can save the files locally or on a network drive. They are not stored on the PLM system.

Note The Import Wizard does not support mapping files created with previous Agile Product Cost Management or Agile Product Collaboration releases.

Key Fields and Required Fields

Key fields uniquely identify an object in the PLM system and are required to import all objects, whether they are new or already exist. An example of a key field is the **Title Block > Number** field for a part. In fact, most key fields for Agile PLM objects are used to set the unique number for the object. When you map fields for import, all key fields in the Edit Mapping File window are shown in **blue boldface** type.

The following table lists key fields for all objects supported by the Import Wizard. You must map these fields.

Object	Tab	Key Fields
Currency Conversion	Currency Conversion	Currency Code
Customer	General Info	Customer Name
		Customer Number1
Declaration	Attachment	File Identifier, File Name
	Cover Page	Name, Supplier

Object	Tab	Key Fields
	Item Composition	Item Number, Item Revision
		Substance Name
		Substance Type
	Items	Item Number, Revision Number
	Manufacturer Parts	Mfr Name
		Mfr. Part Number
	Manufacturer Part Composition	Mfr Name
		Mfr. Part Number
		Substance Name
		Substance Type
	Part Group Composition	Name
		Substance Name
		Substance Type
	Part Groups	Name
	Specifications	Specification
Item	Attachments	File Identifier
		File Name
	BOM	Item Number
	Compliance	Specification
	Manufacturers	Mfr. Name
		Mfr. Part Number
	Sites	Site Name
	Suppliers	Supplier, Change Number
	Title Block	Number
	Composition	Composition Type, Change Number
	Substance	Substance Name, Substance Type
Manufacturer	Attachments	File Identifier
		File Name
Manufacturer Part	General Info	Name
		File Identifier
		File Name
	Compliance	Specification

Object	Tab	Key Fields
	Composition	Composition Type2
	General Info	Manufacturer Name
		Manufacturer Part Number
	Substance	Substance Name
	Suppliers	Supplier
Part Group	Attachments	File Identifier
		File Name
	Compliance	Specification
	General Info	Name
	Parts	Part Number
	Suppliers	Supplier
	Cover Page	Number1
	Affected Items	Item Number
Project Item	AML	Manufacturer Name
		Manufacturer Part Number
	Attachments	File Identifier
		File Name
	BOM	Component Part Number
	Items	Number
Published Price	Attachments	File Identifier
		File Name
	General Information	Customer
		Item Number
		Item Revision
		Manufacturing Site
		Manufacturer Name
		Manufacturer Part Number
		Number1
		Price Type
		Program
		Supplier
	Price Lines	Price Effective From Date

Object	Tab	Key Fields
		Price Effective To Date
		Qty
		Ship From
		Ship To
Quote History	General Information	Customer
		Item Number
		Item Revision
		Manufacturing Site
		Manufacturer Name
		Manufacturer Part Number
		Number1
		Price Type
		Program
		Supplier
	Price Lines	Price Effective From Date
		Price Effective To Date
		Qty
		Ship From
		Ship To
Specification	Attachments	File Identifier
		File Name
	General Information	Name
	Substances	Name, Substances Type
Substance	Attachments	File Identifier
		File Name, Substances Type
	Composition	Name
	General Information	Name
Supplier	Commodities	Commodity
		Continent
		Ship-To
	General Information	Name
		Number1

Object	Tab	Key Fields
	Manufacturers	Continent
		Manufacturer Name
		Ship-To
Projects	General Information	Name
		Number
	Action Items	Assigned To
	Discussion	Subject
User	General Information	General Info User ID
	User Group	User Group group name
User Group	General Information	General Info Name
	User	Users user names in group

Notes:

1. If you don't map the Number field or the data is not provided in the source file, the Import Wizard uses an AutoNumber source to assign a number to a new object it creates. You can set the default AutoNumber sources used by the Import Wizard. For more information, see Setting Default AutoNumber Sources.
2. Composition Type determines what type of substances can be imported into the composition:
   - **Substance Composition** – Substances and substance groups can be imported.
   - **Homogeneous Materials Composition** – Subparts, materials, substance groups, and substances can be imported.
   - **Part Composition** – No substances can be imported.

In addition to key fields, Agile PLM also has *required fields*. The PLM administrator can configure any field on Page One (**Title Block**, **Cover Page**, or **General Information**), Page Two, or Page Three of an object to be a required field. To import new objects in Agile PLM, you must complete all required fields. However, if you are importing data to existing objects, required fields don't need to be mapped. When you map fields for import, all required fields in the Edit Mapping File window are shown in **green boldface** type.

For a full list of required Agile PLM fields, print the Agile Classes Report from the Web Client.

Some Agile PLM objects have special mapping requirements. See the following sections for more information.

BOM Mapping Requirements

Title Block > Number and **BOM > Item Number** are required fields. However, **BOM > Find Num** and **BOM > Qty** are optional key fields. If you don't map the **BOM > Find Num** field, the BOM tab shows 0 as the find number for all imported items. If you don't map the **BOM > Qty** field, all quantities on the BOM tab use the default quantity value set by the Agile PLM administrator.

Quote History and Published Price Mapping Requirements

Quote histories and published prices have special mapping requirements due to the multiple required and optional key fields that can be used to import them. For more information about the minimum required fields for quote histories, published prices, and price lines, see Importing Quote Histories, Published Prices, and Price Lines on page 74.

Mapping Classes and Subclasses

For item, BOM, and AML imports, there are two separate target classes that may need to be mapped depending on what the source file contains. If the source file contains both parts and documents, then you must map both the Parts class and Documentation class, even if the mappings are the same.

If you do not map the **Type** field for the object, or the **Type** column of a particular row is blank, then the default type for the object is used, regardless of whether the object currently exists or not. For example, if your import file contains documents, but you don't map the **Type** field, documents could be imported as parts if that is the default item type selected in Import preferences. For items in the import file that already exist in the target system, a type mismatch rejection error occurs if the default type assumed by import does not match the existing object in the target system.

For information about how to specify default types for an import session, see Setting Default Types on page 59.

Selecting a Change Order and Mapping File

When the Select Change Order and Mapping File page appears in the Import Wizard, you can specify a change order and select a mapping file using the following options:

- **Change Order** — If you are importing in Redlining mode (the default), click **Details** to select a change order. If you are using Authoring mode, you can't specify a change order. For more information about redlining, see Using Redlining or Authoring Mode on page 80.

  Note To change from Redlining mode to Authoring mode, click **Preferences,** select **Business Rule Options**, and change the value for the **Change Mode** field.

- **Use an Existing Mapping File** — After selecting this option, type the path of a mapping file or click **Browse** to select one. The mapping file must exist on your local system or on a network computer. Mapping files are not stored on the PLM server.
- **Create a New Mapping** — After selecting this option, edit Mapping attributes in Step 4 of the Wizard.
- **Use Currently Defined Mapping Definition** — Use a mapping definition previously selected during this import session. If you have not specified a mapping file yet, this option does not appear.
- **Use Default Mapping Definition** — Use the default field mappings for the specified file type. This option is not available for Excel files and delimited text files that do not use a predefined template format.

Once you select or create a mapping definition, the Import Wizard stores it in memory for the current import session. After this, you can click **Import** to begin the import process, or click **Next** to

select other options.

Creating a New Mapping File

If you are importing data from a new source, you need to create a mapping file. To create a mapping file, you select fields from the import data and map them to Agile fields.

To create a new mapping file:

1. In the Import Wizard, proceed to the Select Change Order and Mapping File page.
2. Select the **Define attribute Mapping in next step** option and click **Next**.
3. Click a field in the **Import Fields** list.

   Note Only one field can be selected at a time in the Edit Mapping File window. However, you can map an import field to multiple Agile PLM fields. Also, if the Edit Mapping File window has no fields, the source file may be invalid. If the source file is a delimited text file, make sure fields in the header row do not have carriage return or linefeed characters.

4. Navigate to the corresponding field in the **Agile Fields** list. Click the field to map it. An arrow ← appears next to the field along with the name of the import field to which it is mapped.
5. Repeat steps 3 and 4 for all fields that you want to map.
6. When you finish mapping all fields, click **Save As**. The File Download dialog box appears.
7. Select **Save this File to Disk**. Click **OK**.
8. Type the name of the file, and click **Save**.

To unmap a field in the Edit Mapping File window:

Click ✕ to the right of the mapped field.

To show all fields in the Edit Mapping File window:

Click **Expand All**.

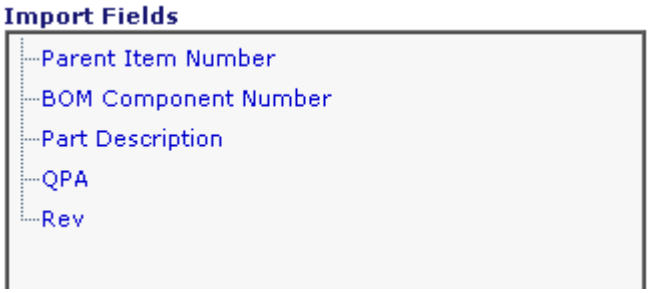
Mapping Page Two and Page Three Fields

Only visible Agile fields can be mapped in the Edit Mapping File window. To map source fields to Page Two or Page Three fields, the Agile PLM administrator must configure those fields to be visible.

How Fields are Sorted in the Edit Mapping File Window

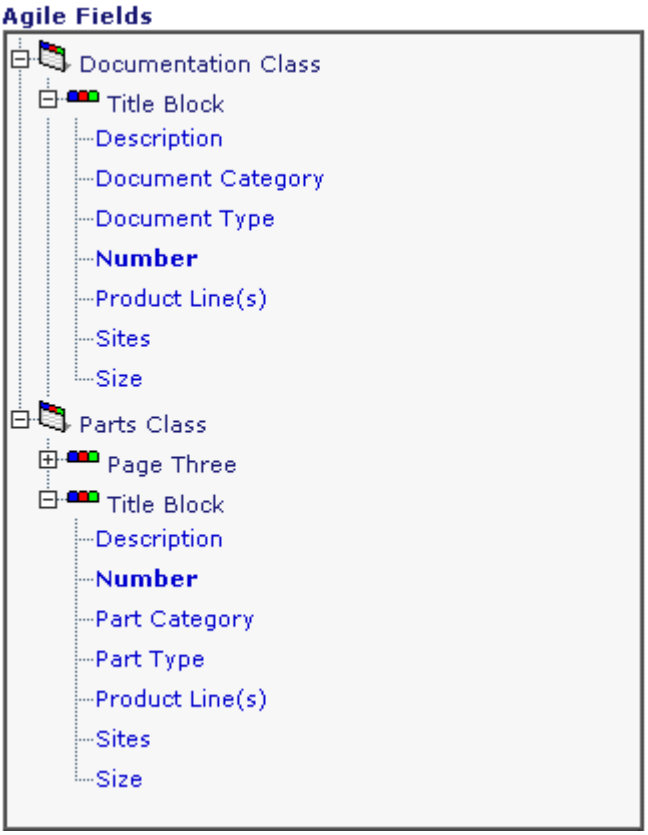
When you are importing data from a PDX package, the Edit Mapping File window displays import fields sorted in alphabetical order within each node in the package. The following figure shows how fields in a PDX package are sorted for the Item subclass.

When you import data from a delimited text file, the Edit Mapping File window does not sort the import fields. Instead, it displays the fields in the order in which they appear in the text file, as shown in the following figure.



To make it easier to map fields in a text file, you may want to sort the fields in another application, such as Excel, before attempting to import the data.

Agile fields are sorted in alphabetical order by the tab on which the field appears, as shown in the following figure.



Reusing a Mapping File

If you routinely import data from the same source (such as PDX packages originating from the same source system), you can maintain mapping files that correctly map source fields to Agile fields.

Mapping files are flexible and are designed to be reused for subsequent import sessions. The import source data generally varies from one import session to another. However, it's possible to reuse the same mapping file for multiple source files if the mapping file contains fields common to them. For example, if you create a mapping file that contains mappings for all PDX objects, you can reuse that particular mapping file for any PDX file, including a file that only includes one type of object, such as Items. If a target field is mapped but doesn't exist in the import source file, the Import Wizard ignores the field and doesn't import it.

Target fields in the PLM system can also change from one import session to another. For example, the PLM administrator can make fields invisible that may have been used in your mapping files. When a target field is mapped but isn't visible in the PLM system, the Import Wizard ignores the field and doesn't import it.

If you rename column headings in your import source file, any mapping files that you created for

that particular source file will be invalid. To successfully import the data, you need to remap all fields that have been renamed. The Import Wizard ignores any mapped fields that are not found in the source file.

If the PLM administrator renamed classes or attributes used in a mapping file, the Import Wizard resolves target fields by referencing their internal IDs. Therefore, mapping files that reference renamed fields are still valid. The Debug Mapping Window shows a warning message for every field that the Import Wizard resolves to a different name.

To use an existing mapping file:

1. In the Import Wizard, proceed to the Select Change Order and Mapping File page.
2. Select **Use an Existing Mapping File**.
3. Type the path of the mapping file, or click **Browse** to select it.

   Note After you select the file, you can confirm the field mappings by clicking **Edit Chosen Mapping**.

4. Click **Next** to continue.

Editing a Mapping File

If an import file has been modified (for example, new columns of data have been added), you need to modify its associated mapping file. Otherwise, the mapping file could be invalid for the revised data.

To edit a mapping file:

1. In the Import Wizard, proceed to the Select Change Order and Mapping File page.
2. Select **Use an Existing Mapping File**.
3. Type the path of the mapping file, or click **Browse** to select it.

   Note Mapping files have an XML filename extension.

4. Edit the Mapping File in Step 4 of the Wizard.

   When you reuse a mapping file to import a new source file, the Import Wizard ensures that the mapping file correctly matches the source data. If the mapping file has errors, an Errors/Warnings box appears at the top of the window. You can click an error or warning in the box to highlight its related field.

5. Edit the mappings.
6. Click **Save As** to save the file. The File Download dialog box appears.
7. Select **Save this File to Disk**. Click **OK**.
8. Type the name of the file, and click **Save**.

Mapping PDX and aXML Packages

When you select **Use Default Mapping Definition** on the Select Change Order and Mapping File page, the Edit Mapping File window provides default mappings for core Agile fields. Custom fields are not mapped by default; you have to map those fields manually.

Only PDX and aXML elements present in the source file are assigned default mappings. For example, if the file contains only items and no other types of import data, then the Edit Mapping File window shows default mappings for item fields only. If you save the mapping file to reuse it later, you can use it only to import items.

To create a mapping file with mappings for all types of import data, make sure all objects are selected in the Select Contents to Import page of the Import Wizard. That way, default mappings are assigned for all objects, regardless if all objects are contained in the selected source file.

Chapter 9

Creating Transformation Definition Files

This chapter includes the following:

About Transformation Definition Files

Source data that originates from a supplier or partner can contain incompatible data. That is, the data may be invalid or inconsistent with your company's Agile PLM system. Before you import data, you may need to transform the values in some fields to make them compatible with the target system.

Transformation definition files are especially helpful for importing data from PDX or aXML packages. Generally, PDX or aXML packages are read-only. You cannot change the values contained in an archived file. If there are data inconsistencies in a PDX or aXML package, you must try to correct them using a transformation definition file.

A transformation definition file is a comma-delimited text file. Optionally, you can qualify text strings in the file using double-quotes ("). The file must contain a set of required fields needed to transform import data.

Transformation definition files are optional for the Import Wizard. If your source data does not need to be modified for your target system, you can skip the Select Transformation Definition File step in the Import Wizard.

Every transformation that occurs during an import session is noted in the import log file.

The Import Wizard does not support transformation definition files created with previous Agile Product Cost Management or Agile Product Collaboration releases.

Required Columns and Column Headings

If you are importing AML data from a PDX package, and you are using a transformation definition file, you should include the same transformations for fields in related objects (Manufacturer Part Number, Manufacturer Name) so that the corresponding attributes for AML rows, manufacturers, and manufacturer parts will have the same values.

Column heading	Description
ObjectTypeName	The class or subclass name on the target system, for example, Parts Class.
PropertyGroupName	The name of the group (or tab) containing the property, for example, Title Block.
PropertyName	The name of a target field.
Operation	The transformation operation. Valid operations are “REPLACE,” “PREFIX,” or “SUFFIX.”
SourcePattern	A string to match the entire source value for the specified field. You can use regular expressions to match patterns of text. The pattern you specify is case-sensitive.
ParameterValue	The replacement, prefix, or suffix text used to transform the **SourcePattern** string.

Note You can add an optional **Comments** column to document each row of the file.

Optionally, you can include the following three columns: **ObjectTypeId**, **PropertyGroupId**, and **PropertyId**. These columns appear automatically in a transformation template that you can generate from the Import Wizard. The columns are not required, but they map the **ObjectTypeName**, **PropertyGroupName**, and **PropertyName** columns to unique internal Agile ID numbers. The ID columns ensure the validity of the transformation definition file in the event that an Agile field name—such as the name of a custom field—changes.

Caution Do not change the column names as they appear in column headings. They must match the specified names exactly. Otherwise, the transformation definition file is invalid.

You can change the order of columns as long as you also change the respective column header. For example, you can make column A the **PropertyName** column.

The header row (that is, the row with column names) must be the first row in the file. There should be no blank columns to the left of the first data column. For example, in an Excel file, the table should start at column A.

You can perform only one transformation per target value. This means that you cannot, for example, use a PREFIX and SUFFIX transformation on the same value. Nor can you chain transformations together in sequence to modify a value iteratively.

Transformations occur in sequential order from top to bottom in the transformation definition file. Only the first transformation for a target field’s value is used; other transformations for the same value are ignored.

Using PREFIX, SUFFIX, or REPLACE Operations

Transformation definition files allow you to add a prefix or suffix to values, or replace values.

A **PREFIX** operation simply adds a specified string to the beginning of a value.

Operation	SourcePattern	ParameterValue	Result
PREFIX	12345	P-	12345 -> 67890
PREFIX	1	P-	1 -> P-1

A **SUFFIX** operation adds a specified string to the end of a value.

Operation	SourcePattern	ParameterValue	Result
SUFFIX	12345	-S	12345 -> 67890
SUFFIX	1	-S	1 -> 1-S

A **REPLACE** operation replaces the entire value. You cannot replace a portion of a value. You also cannot replace a value with an empty string.

Operation	SourcePattern	ParameterValue	Result
REPLACE	12345	67890	12345 -> 67890
REPLACE	1	Agile	1 -> Agile

Using Regular Expressions in the SourcePattern Field

When you specify values in the **SourcePattern** field of the transformation definition file, you can use regular expressions to match patterns of text. A regular expression can contain symbols or syntactic elements used to represent one or more characters.

The simplest regular expression is a literal text string, such as **IPN100012**. Any alphanumeric character in the **SourcePattern** field matches the same character in the source data.

You can also use special symbols to match text patterns in a generalized way, much like wildcards. The following table lists the regular expression symbols you can use in the **SourcePattern** field.

Symbol	Description
Period (.)	Matches any single character.
Asterisk (*)	The preceding character appears zero or more times.
Plus (+)	The preceding character appears one or more times.
Question mark (?)	The preceding character appears zero or one time.

Note The source pattern you specify must match the entire incoming value. Otherwise, the value won't be transformed.

Although regular expressions enhance the types of transformation you can specify, they are optional. If you don't find them helpful, you don't have to use them. The following table shows several examples of regular expressions.

SourcePattern	Matching values
.*	Any value, including an empty string.
.+	Any value except an empty string.
A.*	Values that start with **A**.
AGILE.*	Values that start with **AGILE**.
.*AGILE	Values that end with **AGILE**.
.*AGILE.*	Values that contain **AGILE**.
P0012+	**P0012**, **P00122**, **P001222**, **P0012222**, and so on. However, it does not match **P001**.
P0012*	**P001**, **P0012**, **P00122**, **P001222**, **P0012222**, and so on.
P0012?	**P001** or **P0012**.
P00*20	**P020**, **P0020**, **P00020**, **P000020**, **P0000020**, and so on.
P00.+20	**P00020**, **P00120**, **P00220**, **P00320**, **P00123456789020**. However, it does not match **P020**.

Replacing Blank Fields with a Default Value

You can use a transformation template to provide default values for blank fields in your source file that have been mapped. This is a particularly handy use for transformation templates. For example, if the Product Line(s) field is blank in your source data, you can still map the field and set it to import a default product line value for your Agile PLM system.

Remember, you must map the empty field you want to replace with a default value. Otherwise, the Import Wizard skips the unmapped field.

Use the following **SourcePattern** string to represent an empty field: **^$** (the caret and dollar sign characters). The **ParameterValue** you specify must be a valid value for the specified field.

The following figure shows how to replace all empty Product Line(s) fields in the source file with a default value Ultra.

	A	B	C	D	E	F	G
1	**ObjectTypeName**	**PropertyGroupName**	**PropertyName**	**Operation**	**SourcePattern**	**ParameterValue**	**Comments**
2	Parts Class	Title Block	Product Line(s)	REPLACE	^$	Ultra	If the Product Lines field is empty, set it to Ultra

Generating a Transformation Template

The Import Wizard lets you generate a transformation template, a comma-delimited text file that has the appropriate fields for the target Agile PLM system.

To create a transformation template:

1. From the Select Transformation Definition File page of the Import Wizard, select **Use a saved Transformation file**.
2. Click **Download Transformation Template**. The File Download dialog box appears.
3. Save the file to your local computer.
4. In Download Transformation Template window's Popup, click **OK**.

The default transformation template filename is TransformTemplate.csv. It is a comma-separated file that can be edited in a text editor or a spreadsheet program.

Important	Do not change the default values in the **ObjectTypeName**, **PropertyGroupName**, and **PropertyName** columns. Otherwise, the transformation will fail. To avoid changing these values, Oracle recommends that you download the template and avoid creating new ones that require typing in the values.

After you create a transformation template, fill in the following columns:

- **Operation**
- **SourcePattern**
- **ParameterValue**

The Import Wizard skips lines in the transformation definition file that don't have an operation defined. If you specify an operation in a row, you must also specify a source pattern and parameter value in that row.

The **Comments** column is optional and is used to document each transformation. The three rightmost columns, **ObjectTypeId**, **PropertyGroupId**, and **PropertyId**, should not be edited. They show the internal Agile PLM ID numbers for each field.

Transforming Different Types of Data

Depending on the fields you are trying to transform and their data types, there are different transformation considerations. This section describes issues involved in transforming item numbers, manufacturer names, and product lines.

The following topics describe how you can use transformation definition files to modify different types of import data to make it valid for your Agile PLM system:

- Transforming Item Numbers
- Transforming MultiList Values

- Transforming Manufacturer Names
- Transforming AML Data

If you are importing attachments from an aXML file or a PDX package, you cannot use a transformation definition file to modify attachment filenames.

Transforming Item Numbers

In PLM, the **Title Block > Number** field uniquely identifies an item. Similarly, the **BOM > Item Number** field identifies a component part of an assembly. The same item number can be used for both fields.

If you are importing bills of material and you are transforming **Title Block > Number** values for items, you should also use the same transformation for the **BOM > Item Number** field.

Do not specify a blank **ParameterValue**. Remember, the Import Wizard skips blank fields.

The following figure shows an example of a transformation definition file that modifies the values for both the **BOM > Item Number** and **Title Block > Number** fields, adding a prefix to each item number.

	A	B	C	D	E	F
1	**ObjectTypeName**	**PropertyGroupName**	**PropertyName**	**Operation**	**SourcePattern**	**ParameterValue**
2	Parts Class	BOM	Item Number	PREFIX	.*	DE-
3	Parts Class	Title Block	Number	PREFIX	.*	DE-

Transforming MultiList Values

Although the value for a MultiList field is displayed as a comma-delimited string, the PLM system validates the string against the full list of values. To transform values for a MultiList field, you specify source and target values for each *individual* list value, not for the entire delimited string of values.

The **Product Line(s)** field for items is an example of a MultiList field. To import a value into a MultiList field, the value must be a comma-delimited string. (You can click the **Preferences** button in the Import Wizard to specify another character, such as a semicolon, for the MultiList delimiter.) For example, a Product Line(s) value might look like this:

"Analog, Tools, Memory"

Suppose you want to change these individual values to "Analog & Interface Products," "Development Tools," and "Memory Products," respectively. You can specify a simple REPLACE operation for each value in the transformation template, as shown in the following figure:

	A	B	C	D	E	F
1	**ObjectTypeName**	**PropertyGroupName**	**PropertyName**	**Operation**	**SourcePattern**	**ParameterValue**
2	Parts Class	Title Block	Product Line(s)	REPLACE	Analog	Analog & Interface Products
3	Parts Class	Title Block	Product Line(s)	REPLACE	Tools	Development Tools
4	Parts Class	Title Block	Product Line(s)	REPLACE	Memory	Memory Products

Important Product Line(s) values, like all Agile lists, are case-sensitive.

Transforming Manufacturer Names

If you are importing approved manufacturers lists, manufacturers, or manufacturer parts, it is possible that the manufacturer names in the source data do not match exactly the manufacturer names used in the PLM system. Any difference in manufacturer names, however slight, should be corrected using a transformation definition file. If you do not transform invalid manufacturer names, you can end up with multiple objects representing the same manufacturer, such as CPQ and Compaq.

The following figure shows a transformation definition file that modifies manufacturer names when you import manufacturers. There are six different manufacturer names in the source file: CPQ, DELL, FLEX, MARSHALL, SLCTRN, and TI. The transformation definition file specifies the six replacement values for these names.

	A	B	C	D	E	F
1	**ObjectTypeName**	**PropertyGroupName**	**PropertyName**	**Operation**	**SourcePattern**	**ParameterValue**
2	Manufacturers Class	General Info	Name	REPLACE	CPQ	Compaq
3	Manufacturers Class	General Info	Name	REPLACE	DELL	Dell Computer Corporation
4	Manufacturers Class	General Info	Name	REPLACE	FLEX	Flextronics
5	Manufacturers Class	General Info	Name	REPLACE	MARSHALL	Marshall Industries
6	Manufacturers Class	General Info	Name	REPLACE	SLCTRN	Solectron
7	Manufacturers Class	General Info	Name	REPLACE	TI	Texas Instruments

Here is a similar transformation definition file that modifies the manufacturer names in an AML.

	A	B	C	D	E	F
1	**ObjectTypeName**	**PropertyGroupName**	**PropertyName**	**Operation**	**SourcePattern**	**ParameterValue**
2	Parts Class	Manufacturers	Mfr. Name	REPLACE	CPQ	Compaq
3	Parts Class	Manufacturers	Mfr. Name	REPLACE	DELL	Dell Computer Corporation
4	Parts Class	Manufacturers	Mfr. Name	REPLACE	FLEX	Flextronics
5	Parts Class	Manufacturers	Mfr. Name	REPLACE	MARSHALL	Marshall Industries
6	Parts Class	Manufacturers	Mfr. Name	REPLACE	SLCTRN	Solectron
7	Parts Class	Manufacturers	Mfr. Name	REPLACE	TI	Texas Instruments

Transforming AML Data

If you are importing AML data from a PDX package, and you are using a transformation definition file, you should include the same transformations for fields in related objects (Manufacturer Part Number, Manufacturer Name) so that the corresponding attributes for AML rows, manufacturers, and manufacturer parts will have the same values.

Reusing Transformation Definition Files

You can maintain a transformation definition file that correctly transforms data for all types of import data. You may also find it helpful to create a transformation definition file for each manufacturer, as your manufacturers may use different conventions for entering product data.

Note Make sure you give recognizable names to transformation definition files so that they can easily be associated with a particular manufacturer or an Agile PLM system. Otherwise, you may use the wrong transformation definition file and modify the import data the wrong way.

To use an existing transformation definition file:

1. From the Select Transformation Definition File page of the Import Wizard, select **Use a saved Transformation file**.
2. Type the path of the transformation definition file, or click **Browse** to select it.
3. Click **Next** to continue.

Chapter 10

Recommended Tasks After Importing Data

This chapter includes the following:

Checking the Status of Your Import Session

If you are importing a large amount of data, the Import wizard may take a while to process the data. As it processes records, it keeps a running count of records that were imported or rejected. It also displays messages related to each object that it processes.

When all the data for an import session has been processed, the Import wizard formats the warning and error messages into a log that you can read onscreen or save to a file.

Cancelling an Import Operation

When you click **Import** in the Import Wizard, the Wizard begins to import the data. You can cancel the import operation at any time.

To cancel a running import operation:

1. From the Import Status page, click **Cancel**.
2. A message box appears that reads “Cancel running import operation? All unsaved data will be lost.”
3. Click **OK**. The Import Summary Report page appears.

When you cancel an import operation, any data that was already imported by the time you clicked **Cancel** remains in the database. Also, data is imported in batches, and the Import Wizard finishes importing the current batch before the import operation stops as a result of cancellation. The Records Processed section of the Import Summary Report page shows how many objects were accepted.

Reading the Import Log

When you click **Import** in the Import Wizard, the Import Server starts to process the data. When it finishes processing the data, it displays a log, which includes the following sections:

- **Time Information** — Shows the duration of the import session.
- **Records Processed** — Shows how many records were imported to the PLM system and how many were rejected.
- **Message Summary** — Shows messages generated for each object.

To save the import log to an XML file:

1. In the Import log page, click **Save Log**. The File Download dialog box appears.
2. Select **Save This File to Disk**. Click **OK**. Type the filename, or use the default filename: LogFile.xml. Click **Save**.
   - LogFile.xml is an XML file, which is not ideal for viewing in most applications.
   - You can use your own XML templates to create custom reports from the log file. You can also import another file by using the Import another file button in this step.

To save the import log to an HTML file:

1. Right-click the Import Summary Report page, and choose **View Source**. The HTML source for the page appears in Notepad.
2. Choose **File > Save As** to save the HTML file.
3. To return to the Web Client or Java Client, Click **Done**.

Troubleshooting

If you have problems importing data into the Agile PLM system, read this section for help.

Common Error Messages

The following table provides additional information about common error messages you may encounter when you try to import data into PLM.

Problem Area	Error Message	Cause
General	Could not import record because key fields within the import data are blank.	This error can occur for a couple reasons: ▫ The mapping file is wrong. Key fields must be mapped. ▫ The source file is tab delimited, but the Import Wizard field delimiter is set to comma.
General	Could not convert value 'text' into the appropriate datatype (java.lang.Double).	You tried to import a text value into a numeric field.

Problem Area	Error Message	Cause
Text values	[Character Set Name(s)] character sets are valid for [AttributeName] field.	A text value you are trying to import contains one or more characters that are invalid for the field's character set(s).
Date values	Could not convert value '12.10.2003' into the appropriate datatype (java.util.Date).	The format for date values in your source file does not match the preferred date format specified in the user's profile.
Numeric values	Datatype mismatch while performing Scale validation on value ". Expected datatype was java.lang.Number; actual datatype was java.lang.String.	You tried to import a row with a blank value in a Numeric field.
Money values	Could not convert value into the appropriate datatype (Money).	You tried to import a row with a blank value in a Money field.
Excel files	An error occurred: The selected file is not a valid Delimited Text File. A valid DTF must contain exactly one header row and at least one data row.	The message refers to delimited text files because the Import Wizard converts Excel files into delimited text files before importing data. The first row in the selected Excel source file cannot be blank. Make sure you specify the correct location of the header row.
Mapping	The markup in the document preceding the root element must be well-formed.	This error appears if you select a mapping file that is not properly formed XML (such as a delimited text file). You must select a mapping file previously saved by the Import Wizard.
Supplier	Continent|country|region is invalid.	You selected an invalid geographical location represented by the combination of Continent, Country, and Region values.
Supplier	Offerings you are trying to create are already covered by a broader Manufacturer offering.	You cannot import a new supplier offering for a Ship To location that is already covered by a broader offering.
Mapping	Object properties are mapped, but the key is not fully mapped.	Some objects, like price, supplier, and customer, have several key fields that must be mapped. The current mapping does not map all required key fields.
Price Lines	Effective From Date cannot be greater than the Effective To Date.	You tried to import price lines with an effective from date greater than the effective to date.
Price Lines	[Price Line] is a duplicate price line and cannot be processed when quantity break is disallowed on the price object.	The Allow Qty Breaks field for the Price object has been set to No. Therefore, only one price line can be imported for each set of different Ship To, Ship From, Effective To, and Effective From values.

Importing Blank Fields

When you use the Import Wizard, it cannot perform a destructive operation. Existing Agile data is always preserved, never destroyed. Therefore, you can't import a blank value to a non-empty Agile field. The Import Wizard ignores blank source fields.

Note A transformation can be applied to source data to change blank values into nonblank values.

Mapping All Required Fields

To import data for an object, you must always map all required fields, even if you are importing data to an existing object. This includes required fields on Page Two and Page Three. If you are trying to update a BOM table for an item, you may not want to update required fields that have already been entered on Page Two and Page Three. In such a case, you can map the Page Two and Page Three required fields to blank columns in your source data. As mentioned above, the Import wizard ignores blank source fields.

Configuring Parent/Child Fields

Several fields have a child relationship with other parent fields. Child fields derive their values from parent fields. The administrator of the Agile PLM system must ensure that parent/child fields are configured identically for the system to work properly.

An item's **Title Block.Rev** field and a change order's **Affected Item.New Rev** field are perfect examples of parent-child fields. The Agile PLM administrator must ensure that both these fields are configured identically. Otherwise, problems could occur when you import data. For example, if you set the **Title Block.Rev** field to include all characters, you cannot set the **Affected Items.New Rev** field to include only "Alpha Upper Case" characters. Otherwise, problems will occur when you import items in Redline mode.

Another example of parent/child fields are the **Title Block.Number** field for an item and the **Affected Items.Item Number** field for a change. If these fields are configured differently, you may experience problems importing items.

Importing Supplier Offerings

When you import supplier offerings, the Import wizard determines if a rating exists based on either the **Ship-To** location or the geographical values. It does this by checking the status of the supplier before importing the source file. If the source file has conflicting offerings, you may see unexpected results. Here's an example:

Suppose an existing supplier named ACME has no commodity offerings. On the Agile PLM server, the defined Ship-To locations include San Jose and Milpitas. Let's say you attempt to import a source file with two offerings:

E	F	G	H	I	J
Commodity	**Continent**	**Country/Area**	**Region**	**Ship-To**	**Rating**
CPU	North America	United States	California		Approved
CPU				San Jose	Offered Active

The Import wizard creates the first offering based on its geographical values. The second offering is rejected because the **Ship-To** location, San Jose, is covered by the first offering's region, California. Remember, you cannot create an offering with a location already covered by a broader offering. The end result is that one broad offering and two ratings are created. The ratings for San Jose and Milpitas, which are located in the California region defined by the offering, both have a value of "Approved."

Workaround: To import different ratings for offerings located in the same geographical region, import the offerings and their ratings in two separate import operations.

Managing SmartRules

The Agile PLM server checks for SmartRule violations after each row of a table is updated, not after the entire table is updated. This can cause problems if you are importing BOM, Manufacturers, or Price Lines tables in Redline mode and have set the **Multi Row Update Mode** preference to "Complete Replace." In such situations, you want to update the entire table before validating it.

Workaround: To avoid SmartRule problems in import, the Agile PLM administrator should use the Agile Java Client to set the following SmartRules from "Disallow" to "Warning":

- DuplicateFindNumbers
- DuplicateItemNumbers
- DuplicateRefDes
- MultipleItemsPerManufPart
- Overlap Price Line Effectivity Periods

In the Import wizard, set the Smart Rules Warning Violation Behavior preference to "Accept Objects." That setting allows you to import objects that would otherwise trigger a SmartRules warning.

Updating Pending or Released Items and Prices

If you are importing pending or released items and prices in Authoring mode (instead of Redline mode), don't specify a change order (ECO or PCO) if you are importing only items or prices AND you are not updating any fields related to change control. If you are updating any fields related to change control, such as **Title Block.Lifecycle Phase**, you must specify a change order to import the object.

How Import Handles Duplicate Records

For performance reasons, the Import wizard groups records into batches of 100 that it sends to the server for processing. When the server finishes processing a batch, the client sends the next batch of 100 records to the server. The Import wizard does not reject duplicate records, whether they are contained within one batch or in different batches. If a duplicate record is encountered within the same batch, it is combined with the earlier matching record and counted as only one object. If a duplicate record is encountered in two different batches, the count of imported records is incremented by one.

Chapter 11

Exporting Data

This chapter includes the following:

The Export Wizard

Agile PLM provides a simple Export Wizard to support extracting data from selected objects and export it to a Microsoft Excel file, a comma-delimited (CSV) text file, an aXML file, or a PDX package. You can launch the Export Wizard from either Web Client or Java Client. Exporting data is an easy process. After downloading the export file to your desktop, you can either email or FTP it to a supply chain partner or import it into another application.

Note PDX packages can be viewed or imported only with PDX-enabled applications. Agile provides a free PDX viewer called Agile eXpress.

Export Roles and Privileges

To use the Export Wizard, you must have the Export privilege. The Export privilege is included with the following supported roles:

- (Restricted) Material Provider
- Change Analyst
- Compliance Manager
- Content Manager
- Item Content Manager
- Price Administrator
- Price Manager

- Product Content Read Only
- Souring Administrator

Object Classes that You Can Export

The following table lists the types of objects that the Export Wizard allows you to export.

Base Class	Class
Manufacturers	Manufacturers
Manufacturer Parts	Manufacturer Parts
Prices	Historical Quotes
	Published Prices
Changes	Change Orders (ECOs)
	Change Requests (ECRs)
	Deviations
	Manufacturer Orders (MCOs)
	Price Change Orders (PCOs)
	Site Change Orders (SCOs)
	Stop Ships
Declarations	Homogeneous Material Declarations
	Part Declarations
	IPC 1752-1 Declarations*
	IPC 1752-2 Declarations*
	JGPSSI Declarations*
	Substance Declarations
	Supplier Declarations of Conformance
Discussions	Discussions
Part Groups	Commodities
	Part Families
Programs	Activities (only for Root Programs)
Program Service Requests	Non-Conformance Reports
	Problem Reports
Quality Change Requests	Audits
	Corrective and Preventive Actions

Specifications	Specifications
Substances	Materials
	Subparts
	Substance Groups
	substances
Suppliers	suppliers
Users	Users
Users Groups	Users Groups

* This Declaration class provides special export and import commands that enable suppliers to integrate data with other Agile PLM systems, or complete the compliance request form in other clients, such as Microsoft Excel or Adobe Reader. See Using Special Export and Import Commands to Complete Declarations on page 88.

Export File Formats

You can export Agile PLM data to Microsoft Excel, comma-delimited text, PDX Package, or aXML Package formats. The following table lists the objects that can be exported for each format.

Object	Excel/CSV	PDX	aXML
Items	Yes	Yes	Yes
Manufacturers	Yes	Yes	Yes
Manufacturer Parts	Yes	Yes	Yes
Changes	Yes	Yes	Yes
Prices	Yes		Yes
Declarations	Yes		Yes
Part Groups	Yes		Yes
Specifications	Yes		Yes
Substances	Yes		Yes
Programs	Yes		
Program Service Requests	Yes		Yes
Quality Change Requests	Yes		Yes
Suppliers	Yes		Yes
Discussions	Yes		Yes
Users	Yes		Yes
User Groups	Yes		Yes

In addition to text data, the PDX and aXML Packages can also contain attachment files and redlines.

CSV files created by the Export Wizard contain additional header information that cannot be imported using the PLM Import Wizard. To import data from these files into Agile PLM, make sure you set the header row correctly in the Import Wizard's Delimited Text File Configuration dialog box.

Guidelines for Exporting to Microsoft Excel Files and Text Files

When you export data to a Microsoft Excel file, you end up with a single worksheet. When you export data to a text (CSV) file, you end up with a file of comma-delimited data. Both file types can be opened in Microsoft Excel to see the data in cell format.

Keep these guidelines in mind as you export data to Microsoft Excel files and text files using the Web Client:

- You can export a single object or multiple objects. Each object tab is a separate delimited text output, placed one after the other in the text file. If you export multiple objects, they are added to the export file one after the other.
- You can export only the information that appears on the tabs of the included objects. So, for example, if you export a single part with a BOM, the resulting file includes information on the part's **BOM** tab, but it does not include actual BOM items.
- You cannot add the following objects:
  - deleted objects
  - objects for which you do not have the necessary privileges
  - objects that are already in the export file
- You can export **Attachments** tab information to a text file, but you cannot export the actual attachments. Only PDX and aXML files support actual attachments.
- You can export the **Sites** tabs of items and the **Where Used** tab of items, manufacturers, and manufacturer parts.
- If you select the **Manufacturers Tab** when filtering items and you select a number of levels to be exported with the BOM, your export file will include the AML information for the selected number of levels of the BOM.
- If you include both BOM and AML data in your export file, the AML data is interlaced with the BOM data in the resulting file.
- Regardless of its position in a BOM hierarchy, you can export an Item in Level Template format as shown below.
  a. In Web Client, select an Item, for example a part.
  b. Select **Actions>Microsoft Excel> Export to Excel** (or **Download Template**).

     The Excel file containing Title Block, BOM, and Manufacturers Tab data is exported.

About aXML and PDX Packages

Agile Extensible Markup Language (aXML) format is an XML representation of Agile PLM's business schema. aXML contains all product content managed in Agile PLM. When the transfer order is published, a .ZIP file containing the aXML file and any attachments is created.

Product Data Exchange (PDX) packages contain product content, such as item or change details, plus BOM data, manufacturer information, drawings, and other attached files. They differ from Agile package objects in that they are XML-based documents that conform to the PDX 1.0 standard. PDX packages are based on an industry-standard format for encoding structured data in an XML format. This standard provides an application-independent way to describe product content.

You can use aXML and PDX packages to send data from one Agile system to another. In addition, you can download them to your desktops, email or FTP these packages. For PDX packages, you can import them into a PDX-enabled application, such as Agile eXpress.

For more information about PDX, including a link to the DTD, see following Web page: http://webstds.ipc.org/2571/2571.htm

The information in each aXML or PDX package is secure because the data that flows between the user, the Web Client, and Agile servers is encrypted (where legal), and supply chain partners cannot view the contents of each other's packages. Login, Discovery, and Read privileges can be set in Agile Administrator to protect partners' information from access by unauthorized users.

Note In Web Client, you can create, but you can't view aXML or PDX packages.

Guidelines for Exporting to aXML and PDX Packages

Use these guidelines when you export data to aXML or PDX packages using Web Client:

- You must have the Export privilege to export data to aXML or PDX packages.
- You cannot add deleted objects, objects for which you don't have appropriate privileges, or objects that are already added to the Objects To Extract table.
- Web Client supports direct access to latest released revisions of items. It also lets you access back revisions or pending revisions.
- If you export Change objects, you can use a custom filter to export redline changes to BOMs and AMLs of affected items. See Exporting Redline BOMs and AMLs for Affected Items on page 142.
- PDX packages include **Sites** and **Where Used** tab information, but they are exported as additional attributes, without their own element tags like <sites> or <whereUsed>.
- If you choose PDX export, the Compliance tab of items and manufacturer parts is not exported. This is only applicable to PDX packages.
- Agile eXpress does not support the **Sites** tab of items or the **Where Used** tab of items, manufacturers, or manufacturer parts. This is only applicable to PDX packages.

Starting the Export Wizard

You can start the Export Wizard from either Web Client or Java Client using one of the following methods:

Java Client

- Open an object to export, and then choose **Tools > Export**.

Web Client

- Choose **Tools**  > Export.
- Open an object to export, and then choose **Actions > Export**.
- Search for objects that can be exported (CSV or XLS), select one or more objects on the Search Results page, and then choose **More > Export**.
- Select and copy objects under **My Bookmarks** and **Recently Visited** in left pane and paste them to the Export dialog.

Note	Although you can select any object from search results, the Export Wizard does not support all object types.

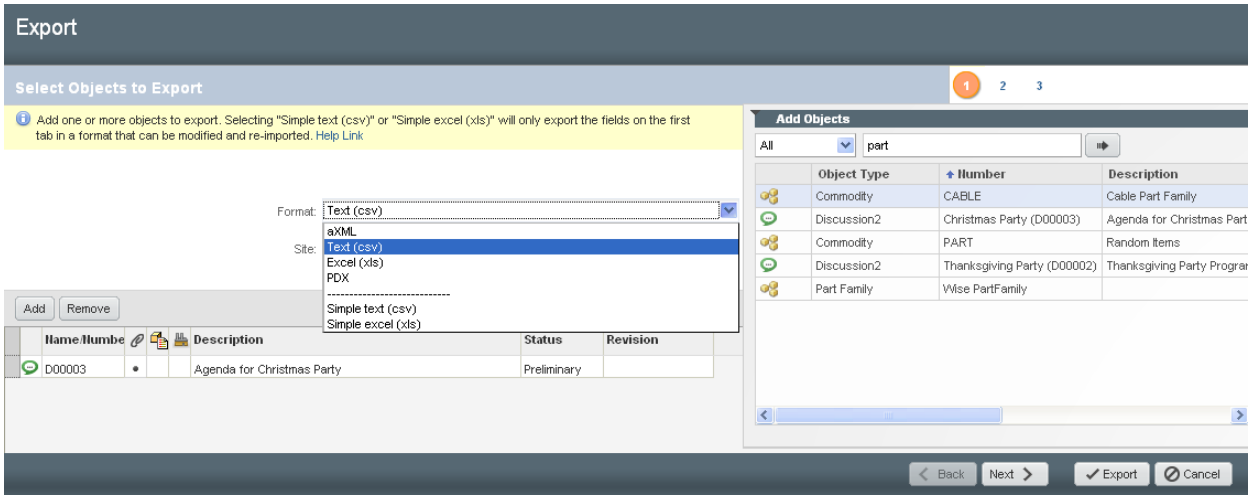
Export Wizard Steps

This section describes all Export Wizard steps, although most are optional. You can choose to download the export file at any step without completing the remaining steps.

To export data to a file:

1. Start the Export Wizard. For options, see Starting the Export Wizard on page 136.

The Select Objects to Export page appears. If you started the Export wizard from **Actions > Export** or after selecting objects in search results, some objects are already listed on this page.



2. In **Format** field, use the drop-down list to specify whether you want to export to a PDX package, an aXML, an Excel (XLS), a Text (CSV), a Simple text (CSV), a Simple *excel* (XLS) file.
3. In the **Site** field, select a site, to export data for all sites, select All.

   Note The **Site** field is only available if your Agile system includes the Sites server license.

4. If you don't need to add any more objects to the list, proceed to step 6. To add more objects, click **Add**.

   The Search palette appears.
5. Search to find appropriate objects.
6. Double click the desired object or drag and drop it into the Select Objects to Export dialog.
7. Adjust values in **Revision** column, if necessary.
8. When you have found and added all objects to include in the export file, click **Next** to display the Select Filters page.
9. Filters let you specify which information is added to the export file. For details about filters, see Specifying Filters.
   - To use predefined filters, select **Predefined filter** and then select the filters you want to use from the drop-down lists. To see the details of the filters, click **Details**.
   - To define a custom filter for this operation, select **Create Custom filter**; the Wizard will step you through filter definitions for each object type in the file.
10. Click **Next** to proceed from the Select Filters step.
11. If you selected **Customize**, on each Filter page, select the information to include in the file, and click **Next** to proceed to the Define Header page.
12. Enter the file type and description, and then click **Export** (If you are exporting to a text file, header information appears at the top of the file.). The Summary page appears.
13. When everything is complete, click **Export** to compile and download the export file. If you are exporting to a text file, the encoding type of the exported file is set according to your current

user login profile setting. You can use Web Client or Java Client to view or modify currency settings.

- In Web Client, click **Settings > User Profile > Preferences > Edit**.
- In Java Client, click **Settings > Current User > Preferences**.

14. Click **Close** to close the File Download window.

Note When exporting objects in aXML format, either from the object's actions menu or global export, you can save exported files with the .axml.zip extension. To save them without the .axml.zip extension, change the Save As Type option to All Files in the Save As dialog, and then click Save. This will save the file in the .aXML format.

15. Click **Cancel** to close the Export Wizard.

Specifying Filters

Filters let you specify which information is added to the export file. In Web Client, you can use saved filters, defined by your Agile administrator, or you can create custom filters. In Agile Client, you can create user predefined filters and use them during export.

Using Saved Filters

When you select **Use predefined filter** in Select Content Filters step of the Export Wizard, you can select from lists of defined filters for all supported object types. These filters are defined by the PLM administrator using the Java Client. For more information, refer to the "Agile Content Service Settings" chapter in the *Agile PLM Administrator Guide*.

To see the details about the selected filter, click the corresponding **Details** button. If you select the **Use predefined filter** option, but you do not select filters to use, the Export Wizard uses the default customized filters. See Working with System Default Filters on page 140.

For items and changes, only filters for the *superclasses* (Item and Change) are included in the Export filter lists. Filters defined specifically for *classes*—for example, part, document, ECO, and MCO—are not included in the Export filter lists. For example, if your export file includes an ECO and an ECR, the Change filter selected applies to both of the objects. Likewise, if your export file includes a part and a document, the Item filter selected applies to both objects.

Working with BOM Filters

When you choose to include BOM information in the export file, you must specify the level of BOM information to include from the following options:

- **Tab Only** (saved filters, set by the Administrator) or **BOM Tab** (custom filters) – For all formats, it includes the information in the BOM tab itself, with only references to the items on the BOM tab (first level only). If this BOM option is the only one selected, the BOM items themselves are not included.
- **Tab and Items**
  - **Tab and Items, All Levels** (saved filters, set by the Administrator) or **BOM Items, All Levels** (custom filters) – For PDX and aXML formats, includes all items in all levels of the BOM. For Excel and CSV format, includes references to the items on all levels of the BOM tab, but does not include the items themselves.
  - **Tab and Items, BOM Level** (saved filters, set by the Administrator) or **BOM Items, BOM Level** (custom filters) – For PDX and aXML formats, includes the items on the specified level (1, 2, ..., last) of the BOM. Does not include child components of subassemblies. For Excel and CSV format, includes references to the items on the specified level of the BOM tab, but does not include the items themselves.

Creating Custom Filters

Custom filters enable specifying export tabs for the type of object that you have selected.

To create a custom filter:

1. On the Filters page of the Export Wizard, click **Create Custom filter**.
2. Click **Next**.
3. Subsequent Wizard pages appear for each type of object selected. For each type of object, click the check boxes for information to include in the export file, and then click **Next**.

Note To use the default custom filters, click **Next** on each filter page.

Working with System Default Filters

The System Default filters are the same as those that are used if you choose **Customize** and then proceed through each filter step without changing the settings.

If you create an export file without specifying the content filters to use, the Export Wizard follows these guidelines:

- If you download the export file in step 1 of the Wizard, the content to be exported is filtered according to System Default filters.
- If you download the export file in step 2 of the Wizard, content is filtered according to the selection made in step 2. In this case, if you select **Customize**, but you don't then proceed through the steps that define those filters, Export uses the System Default filters. If you select **Predefined filter**, but you do not select filters to use, the Export Wizard uses the System Default filters.

If you use the System Default filters, the export file contains the following information:

- **Items** – Title Block, Page Two, Page Three, Compliance, Suppliers, BOM tab (and all levels of BOM items), Manufacturers, Item Prices, Sites, Attachments (and attached files, if the export format is PDX or aXML)
- **Manufacturer parts** – General Info, Page Two, Page Three, Attachments (and attached files, if the export format is PDX or aXML)
- **Manufacturers** – General Info, Page Two, Page Three, and Attachments (and attached files, if the export format is PDX or aXML)
- **Changes** – Cover Page, Page Two, Page Three, Affected Items, Attachments (and attached files, if the export format is PDX or aXML)
- **Prices** – General Info, Page Two, Page Three, Price Lines, Attachments (and attached files, if the export format is PDX or aXML)
- **Substance** – General Info, Page Two, Page Three, Composition, Attachments (and attached files, if the export format is PDX or aXML)
- **Declaration** – Cover Page, Items, Page Two, Page Three, Item Bill of Substances, Manufacturer Parts, Manufacturer Part Bill of Substances, Part Groups, Part Group Bill of Substances,

Compliance, Attachments (and attached files, if the export format is PDX or aXML)

- **Specifications** – General Info, Page Two, Page Three, Substances, Attachments (and attached files, if the export format is PDX or aXML)
- **Part Groups** – General Info tab, Page Two, Page Three, Parts, Compliance, Suppliers, Attachments (and attached files, if the export format is PDX or aXML)
- **Program** – General Info, Dependencies Dependent Upon, Team, Dependencies Required For, Discussion, Action Items, Page Two, Schedule, Page Three
- **Product Service Requests** – Relationships, Affected Items, Attachments (and attached files, if the export format is PDX or aXML), Related PSR, Page Three, Cover page, Page Two,
- **Quality Change Requests** – PSR Item, Relationships, Cover page, Affected Items, Page Two, Attachments (and attached files, if the export format is PDX or aXML), Page Three
- **Discussions** – Discussion, Page Two, Page Three
- **Users** – General Info tab, Page Two, Preferences, User Group
- **User Groups** – General Info tab, Page Two, Users, Page Three

Specifying Filters When Exporting Attachments

For aXML and PDX, when the **Attachment** tab is included in the selected tabs list, the **Attachments Options** selection is enabled and you can select **Tab Only** or **Tab and Files**. If you select **Tab and Files**, you can provide a comma-separated list of file extensions to be included in the export output file. Filtering exports by file type gives you the option to exclude certain files such as CAD diagrams when exporting BOM type data to your suppliers.

Exporting PLM Objects

The following paragraphs document exporting the respective supported file formats for these objects.

Exporting PSR, QCR, and Supplier Objects

Once you have selected the object type, the procedures and options to export the selected PLM object are essentially the same. The supported tables and components are:

- **Product Service Requests** — Cover Page/Page 1, Page Two, Page Three, Affected Items, Related PSR, Relationships, Attachments, and History. Supported file formats are: CSV/Excel and aXML.
- **Quality Change Requests** — Cover Page/Page 1, Page Two, Page Three, Affected Items, Relationships, Attachments, and History. Supported file formats are: CSV/Excel and aXML
- **Suppliers** — General Information, Page Two, Page Three, Contact Users, RFX Routing, Manufacturers, Commodities, PSRs, Relationships, Attachments, and History. Supported formats are: CSV/Excel and aXML

To export PSR, QCR, or Supplier objects:

1. Choose and open the target object (PSR, QCR, or Supplier).
2. Choose **Actions > Export** for the target object.
3. In **Objects to Export**, select the applicable file type from **Export to** (**aXML**, **Text (CSV)**, or **Excel**) **> Next**.
4. In **Filters**, select the applicable filter. Click **Next**.
5. In **Specify Export Properties step**, specify Type and provide the applicable description. This is optional.
6. Click **Export** to complete the process.

Exporting Redline BOMs and AMLs for Affected Items

If you choose the PDX or aXML export formats, an additional filtering option called **Redline Changes Only** is available when you export Change objects: This option indicates that only changed BOM elements should be included in the redline section of the affected items of the changes. Unchanged elements will not be included. The exported PDX or aXML file could then be used to communicate BOM and AML changes to supply chain partners.

This feature is targeted for ERP adaptors that are designed to process deltas. Agile Content Service (ACS) can be used to send the exported PDX or aXML file to an ERP adaptor.

To export redline BOMs and AMLs:

1. Open a Change object (such as an ECO).
2. Choose **Actions > Export**.
3. Choose **PDX** as the export format. Click **Next**.
4. On the Filters page of the Export Wizard, click **Create Custom filter**. Click **Next**.
5. On the Filter Changes page, make sure both the **Affected Items Tab > Affected Items** and the **Redline Changes Only** boxes are checked.

   Note If you check the **Redline Changes Only** box without checking the **Affected Items** box, affected items and redline tables are not exported.

6. Click **Next** to set additional settings.
7. Click **Export**.to set complete the process.

Exporting Relationship Tables of Objects

You can export relationship tables containing Item, Change, Manufacturer, Manufacturer Part, and Part Group objects as CSV/Excel or aXML files. For the aXML file format, there are two additional tags **ControlObjStatus** and **EffectObjStatus** to represent the relationship rule. The exported aXML files can be imported back into the same or another system.

For information on Relationship tables, refer to *Getting Started with Agile PLM*. For procedures, see Export Wizard Steps on page 136.

Exporting Multiple Revisions of the Same Item

Export will output multiple revisions of the same item in the order of their respective revision release dates. Pending revisions will appear first in the output file. They are followed by the released revisions from earlier releases to the most recent.

Specifying Headers

On the Define Header page of the Export Wizard, you can specify optional header information that describes the export file. Enter values in the Type and Description fields. The Creator field is filled automatically with your name.

Downloading Files

You can choose to download the export file at any step of the Export Wizard without completing the remaining steps. If you did not specify filtering information before downloading the export file, see Working with System Default Filters on page 140 System Default Filters for information on the default filters that are used.

To download the export file:

1. In the Export Wizard, click **Export**.
2. Click **Save** to save the file to your computer.

   Browser's Save dialog appears.

Viewing Exported Files

If you export a text file, you can view it in a spreadsheet program, like Microsoft Excel, or in any text editor. If you export a PDX package, you can view it using Agile eXpress or another PDX-enabled application.

You can download the free Agile eXpress viewer from the following Web site:
http://www.myagile.com/eservices/express/

Chapter 12

Using FileLoad

This chapter includes the following:

Overview

FileLoad is a utility that helps load legacy attachment files directly from a source system into the Agile File Manager where they are attached to the appropriate Agile PLM objects. Files can be attached to most Agile PLM objects.

FileLoad is activated by choosing:

- **Tools > FileLoad** from the menu bar in Java Client
- Tools and Settings icon  **> FileLoad** in Web Client

Choosing a FileLoad Client

Both Web Client and Java Client have FileLoad utilities. Although they are very similar, they perform differently and offer slightly different options.

Feature	Java Client	Web Client
Loads files	Yes	Yes
Loads references to URLs (Web locations)	Yes	Yes
Loads references to files in a Custom (read-only) file vault (INPLACE attachments)	Yes	
Supports files up to 40 GB in size	Yes	Yes
Supports multiple dedicated threads	Yes	

Feature	Java Client	Web Client
Supports uploading files remotely	Yes	Yes
Locates files on the local machine (unless a network location is specified)	Yes	
Locates files on the Web proxy server (unless a network location is specified)		Yes
Can load data into attachment flex fields	Yes	Yes
Can load multiple files into one file folder	Yes	Yes
Can attach files to the latest revision when the specified revision cannot be found	Yes	Yes
Can attach files to incorporated items	Yes	Yes
Generates log files in the location you specify	Yes	
Generates log files on the server. You can download them to your local machine.		Yes

Performance

Although FileLoad performs faster in the Java Client, performance varies depending on the capacity of the client and server computers. If the client and server computers are multiprocessor machines, you can notice a significant improvement in FileLoad performance when you use the Java Client.

How FileLoad Locates Files

Unless you specify a network location for files, Java Client's FileLoad utility locates files on the local machine, while Web Client's FileLoad utility locates files on the Web proxy server (which can be on the same computer as the application server).

The FileLoad utility in both Agile PLM clients can access files remotely through a network path. For more information, see Uploading Files Remotely on page 148.

Loading References to Files

The FileLoad utility in Java Client supports an additional attachment type, **INPLACE**. You can use the **INPLACE** attachment type value to upload a reference to a file located in a Custom file vault. The reference to the file is stored in the Agile PLM database, but the actual physical file resides in the Custom vault. The Custom vault is read-only. Files stored in a Custom vault can be checked out, but when they are checked back in, they are copied to the Primary Read/ Write location of the vault. Before trying to load references to files, make sure the Custom vault is set up. See Setting Up a Custom File Vault on page 148.

Note The Web Client FileLoad utility does not support the **INPLACE** attachment type.

FileLoad Options

The FileLoad user interface varies slightly depending on the Agile PLM client you use. For a complete list of FileLoad options, see the table in Processing Attachments on page 156.

Before You Begin

Before you begin using FileLoad, make sure you have set up your environment correctly and have proper privileges described in this section.

File Size and Batch Limits

FileLoad can handle files up to 40 GB in size. It can also process many files in one batch. Agile recommends not exceeding 15,000 files per processing batch.

Disabling Synchronous Full-Text Indexing

Before using FileLoad, turn off synchronous full-text indexing of files. When synchronous full-text indexing is enabled, FileLoad does not report progress, the browser times out on long uploads, and file-loading is extremely slow. After you finish using FileLoad, you can turn on synchronous full-text indexing of files again.

To disable synchronous full-text indexing:

1. Start Agile Java Client and log in as an administrator.
2. Click the **Admin** tab.
3. Choose **Settings > System Settings > Full Text Search**.

   The Full Text Search window appears.
4. Click the **Indexing** list and select **Manual** or **Scheduled**.
5. If you chose **Scheduled**, click the **Recurrence** field and schedule indexing to start after file-loading will be finished.
6. Click **Save**.

For more information about how to change full-text indexing settings for Agile PLM, refer to *Agile PLM Administrator Guide*.

Turning Off Antivirus Software

If you use an antivirus tool, turn it off before using FileLoad. An antivirus tool will scan every new uploaded file, which will slow down the loading process.

Required Agile PLM Privileges

To use FileLoad to load file attachments to Agile PLM objects, you must have the same privileges that you need to modify those objects in Agile PLM clients. That is, you must have the Modify privilege for any object to which you are attaching a file.

In addition, you must also have the necessary FileLoad privilege.

To change your Agile PLM roles and privileges, see your Agile PLM administrator.

Uploading Files from Local Drives

Agile recommends that you upload files from a local drive. Otherwise, there is a risk that network-stored files, especially if they are very large, may cause FileLoad to quit, leaving the loading process only partially completed.

Uploading Files Remotely

Although Agile recommends uploading files from a local drive, you can also upload files remotely. Before trying to upload files from a remote computer, make sure:

- There is a shared folder in which to save attached files.
- If you are using the Agile Web Client, the operating system user that runs the Agile Application Server (such as System for Windows or Root for Solaris) must have Read access to the referenced file.
- If you are using the Agile Java Client, the operating system user logged into the client computer must have Read access to the referenced file.
- The network path is included in the Index files. For example:

```
ITEM,P00001,,\\computer\sharedfolder\file.txt,FILE,description
```

If these criteria are not met, you will see the following error message when you try to upload files remotely:
“Cannot find the file to be attached.”

Setting up a Custom File Vault

If you are using Java Client to upload references to files stored in a Custom file vault, the PLM administrator must set up the vault first. For more information about administering Agile File Manager, see the *Agile PLM Administrator Guide*.

To set up a Custom file vault:

1. Start Java Client and log in as an administrator.

2. Click the **Admin** tab.
3. Choose **Server Settings > Locations**. The Server Location window appears.
4. Click the **File Manager** tab to bring it forward.
5. Double-click the entry to display the File Manager dialog box.
6. Click the  button to add a new vault.
7. In the **Vault Type** field, select **Custom**.
8. In the **Description** field, type a description of the vault.
9. In the **Base Storage Directory** field, enter the primary location where the files are stored. There can be other subdirectories containing files located beneath this directory.
10. Click **OK**.
11. Restart File Manager.

> **Note** If you do nott restart the Agile File Manager after setting up the Custom vault, the FileLoad utility is not able to find the vault.

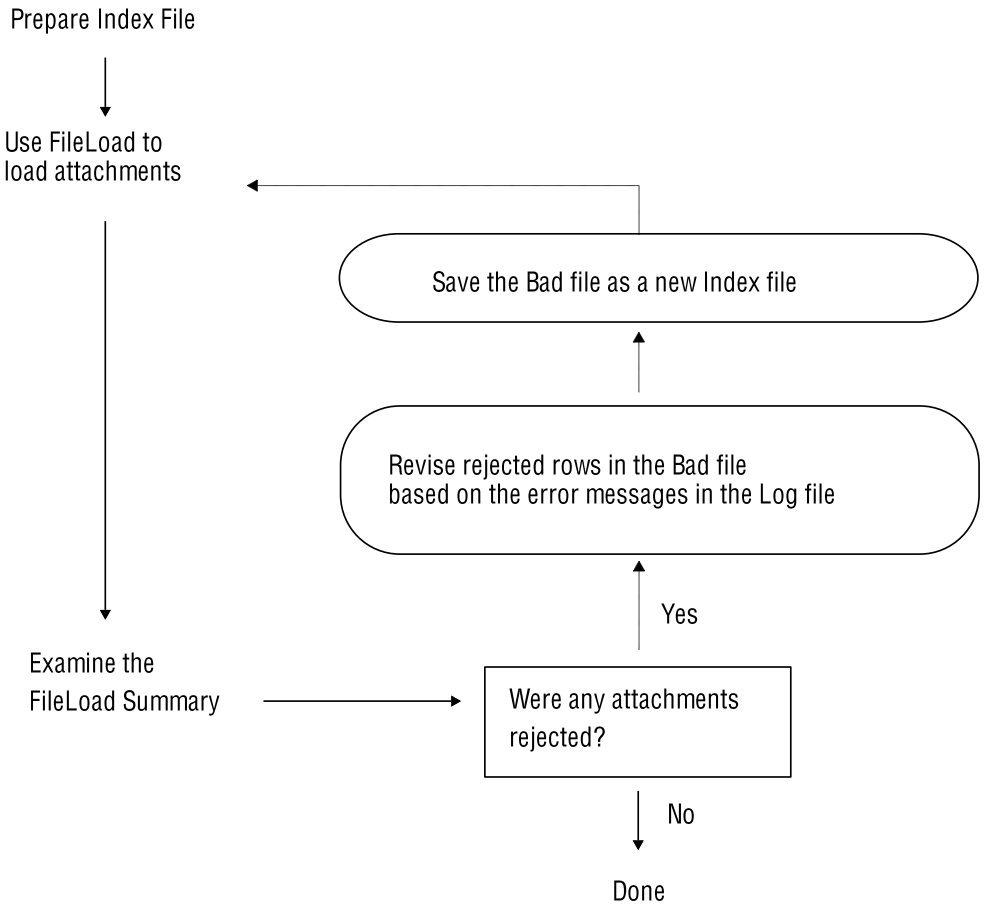
Process Outline

The FileLoad process follows the steps listed below. Each step is discussed in detail in the sections that follow next.

- **Stage 1: Prepare the Index File** (see Preparing the Index File on page 150) – Prepare an attachment Index file.
- **Stage 2: Process Attachments** (see Processing Attachments on page 156) – Use FileLoad and the Index file to process the attachments.
- **Stage 3: Evaluate the Results** (see Evaluating the Results) – Evaluate the results. If any attachments were rejected, open the FileLoad log file and view the error messages.
- **Stage 4: Revise and Reload Rejected Attachments** (see Revise and Reload Rejected Attachments on page 161) – Revise the rejected attachment rows in the “Bad” file. Save the Bad file as a new Index file, and load it.

  Repeat Stages 3 and 4 until all attachments are loaded successfully.

The following illustration summarizes the FileLoad process.



Important It is recommended that no more than 200–300 items be loaded against one change. If a larger number of affected items are loaded against a change, FileLoad will take much longer to load the files and it will take much longer to bring up revisions of any item on that change.

Preparing the Index File

The first stage in batch-loading attachments with FileLoad is to prepare an attachment Index file. The Index file is a text file in which each row describes one file to be loaded as an Agile PLM attachment.

Each row that is updated must have at least six entries separated by delimiters, such as commas. To support uploading information to flex fields, additional attribute-value pairs can be specified.

Index File Structure

Each row in the Index file must have the following structure:

ObjectType, PrimaryKey, SecondaryKey, Path/Filename, AttachType, Description [,attrib1=value1,attrib2=value2,...attrib*n*=value*n*]<CR>

Where:

ObjectType = A keyword identifying the object type.

PrimaryKey = The value of a primary key field for the specified object type. For most objects, the primary key is the object number. The object you specify must already exist; FileLoad won't create it.

SecondaryKey = The value of a secondary key field for the specified object type. If the object does not't require a secondary key, leave the field blank.

Path/Filename = A URL or a fully qualified path and filename.

If you specify a URL, make sure it's correct. FileLoad does not validate URLs.

For the INPLACE attachment type (see below), the path you specify should be relative to the Base Storage Directory of the Custom file vault. For example, if the Base Storage Directory is d:/files, and the file you want to load is located in d:/files/cad/0021c.dwg, enter the following relative path: cad/0021c.dwg. The File Manager iterates through all vaults (both standard and custom) until it finds the first matching file.

Note: Although Windows supports pathnames with back slashes (\), Solaris and other UNIX operating systems do not. Consequently, forward slashes are used in path examples in this chapter.

AttachType = Enter one of the following case-insensitive values:

- **FILE** — Uploads a file to a Standard file vault.
- **URL** — Adds a URL attachment to the object. A URL is a Web location, such as http://www.agile.com. You can specify non-HTTP URLs, such as an FTP site.
- **INPLACE** — Uploads a reference to a file located in a Custom file vault, which is read-only.

Note: The **INPLACE** attachment type is supported only in the Java Client and only if a Custom vault has been set up by the PLM administrator.

Description = An optional description of the file.

[,attrib1=value1,attrib2=value2,...attrib*n*=value*n*] = Optional pairs of attribute names and attribute values used to load data into flex fields. The default separator character for attribute names and values is an equal sign (=), but you can specify another character. Separate each attribute/value pair with an attribute delimiter, such as a comma.

The following is an example of one row of an Index file:

ITEM,P00010,,C:/temp/logo_color.bmp,FILE,Description="Fileload,Test",Date01=12/12/00,List01=Select1,Text01="Test_Fileload",Text02=DFSF<CR>

To make sure the line is interpreted correctly, the value for the Description attribute is “Fileload, Test”. Quotes are included around the text containing a comma so that it is not interpreted as an entry separator.

PrimaryKey and **SecondaryKey** field content requirements depend on the attachment object type. The specific requirements for each object type are described in Primary and Secondary Keys on page 153.

Here are some general notes on the Index file structure:

- All attachment flex fields must be enabled (made visible) from the Admin tab of the Java Client. Flex fields that are used in the Index file but are not enabled will cause FileLoad to report an error.

  Note You cannot access administrative functions unless you have been assigned the Administrator privilege; please see your Agile PLM administrator for assistance.

- Each field must be separated by a delimiter character, such as a comma. The same delimiter character must be used throughout the Index file. The delimiter used in the index file must match the **Attribute Delimiter** that you select in the FileLoad utility. For more information about delimiter options, see the table under Processing Attachments on page 156.
- The flex field attributes and values must be separated by a different delimiter from the delimiter used for the rest of the Index row.
- Doubled delimiters identify a blank field. In comma-delimited files, a blank field is specified by two commas, with no space between them, like this: **,,**
- Each row must always have a minimum of six delimited fields.
- Each attachment row must end with a carriage return.
- Short Index files of 100 to 200 lines can help you monitor what is going on and correct any problems more easily.
- Agile PLM does not change the incorporation date on the target object.
- To accommodate temporary files, FileLoad requires twice as much disk space as the size of the attachments being loaded by each Index file. If you do not have room to load all attachments at once, try using more Index files with smaller total attachment sizes to reduce the space required for each one. The temporary files are automatically deleted after the loading process is done.
- Successful attachments are logged in the **History** tab for the object.
- Maximum number of characters allowed:
  - Filename – 255 characters or the number of characters specified for the **MaxLength** property of the **File Folders > Files > File Name** field, whichever is less.
  - Description field – 100 characters or the number of characters specified for the **MaxLength** property of the **File Folders > Files > File Description** field, whichever is less.

Object Type Keywords

The following table lists object type keywords for each base class that FileLoad supports. Use these keywords in the **ObjectType** field of your Index file.

Object Type	Keyword
Change	**CHANGE**
Declaration	**DECLARATION**
File Folder	**FILEFOLDER**
Item	**ITEM**
Manufacturer	**MFR**
Manufacturer Part	**MFR_PART**
Part Group	**COMMODITY**
Price	**PRICE**
Product Service Request	**PSR**
Program	**ACTIVITY**
Quality Change Request	**QCR**
Requests for Quote	**RFQ**
RFQ Response	**RESPONSE**
Sourcing Project	**PROJECT**
Specification	**SPECIFICATION**
Substance	**SUBSTANCE**
Supplier	**SUPPLIER**

Primary and Secondary Keys

The following table lists the primary and secondary keys required for each object type that FileLoad supports. If a secondary key is not required for an object, you may leave that field blank in the index file.

Object Type	Primary key	Secondary key
Change	Change number	[blank]
Declaration	Declaration number (equivalent to the **Cover Page > Name** field)	[blank]
File Folder	File Folder number	[blank]
Item	Item number	Revision (optional) See “Item Revisions” below.

Object Type	Primary key	Secondary key
Manufacturer	Manufacturer name	[blank]
Manufacturer Part	Manufacturer Part number	Manufacturer name
Part Group	Part group number	[blank]
Price	Price number	[blank]
Product Service Request	Product Service Request number	[blank]
Program	Program number	[blank]
Quality Change Request	Quality Change Request number	[blank]
Request for Quote	Request for Quote number	[blank]
RFQ Response	Request for Quote number	Supplier number
Sourcing Project	Project number	[blank]
Specification	Specification number	[blank]
Substance	Substance number	[blank]
Supplier	Supplier number	[blank]

Item Revisions

If you are loading files for Items, you can specify an optional revision identifier in the **SecondaryKey** field. Use a valid revision identifier. For example, your company may use letters to identify revisions, such as A, B, C, and D. The following example loads a file for revision A:

ITEM,P00561,A,D:/dwg/00561a.dwg,FILE,Torque Widget

Important Do not specify the "?" in the revision filed. The FileLoad utility will fail if used.

To specify an Introductory revision (one that is newly created and not yet rehearsed), leave the **SecondaryKey** field blank, as in the following example:

ITEM,P00545,,D:/dwg/00545.dwg,FILE,Battery Cover

To specify a pending revision (one for which the change order has not yet been released), enclose the revision in parentheses, as in the following example:

ITEM,P00561,(B),D:/dwg/00561b.dwg,FILE,Torque Widget

Note If any revisions have been specified incorrectly in the Index file, the FileLoad utility has an option named **Attach to the latest revision when the specified revision cannot be found** to handle them.

Sample Index Files

This section shows examples of how the comma-delimited Index files should look. Although these examples show the use of FILE, INPLACE, and URL attachment types in different Index files, they can also be used in the same file.

Sample Index File Used to Upload Files

The following rows are from a sample comma-delimited Index file that uses the FILE attachment type. The object types have been arranged in alphabetical order for readability.

```
ACTIVITY,PG0278,,D:/myprograms/phasecost.doc,FILE,Phase Cost Report
ITEM,P00545,,D:/dwg/00545.dwg,FILE,Battery Cover
ITEM,P00561,A,D:/dwg/00561a.dwg,FILE,Torque Widget
ITEM,P00561,(B),D:/dwg/00561b.dwg,FILE,Torque Widget
CHANGE,25000,,D:/dwg/00561b.dwg,FILE,Torque Widget
COMMODITY,PG0278,,D:/groups/guidelines.doc,FILE,Part Group Guidelines
DECLARATION,MD00007,,D:/docs/DecInstr.doc,FILE,Instructions
FILEFOLDER,FOLDER00042,,D:/specs/92master.doc,FILE,9.2 Master Spec
MFR,Manutech,,D:/dwg/0021c.dwg,FILE,Torque Widget
MFR_PART,WE10023-45,Manutech,D:/dwg/0021c.dwg,FILE,Torque Widget
PRICE,CONTRACT00001,,D:/pricing/price_sheet.xls,FILE,Price Sheet
PROJECT,PRJ00046,,D:/projects/dell/resources.xls,FILE,Resource
Spreadsheet
PSR,PR00004,,D:/pr/sn00241.doc,FILE,Support Notes
QCR,CAPA00001,,D:/capa/details.doc,FILE,Problem Details
RESPONSE,RFQ00001,SUP00067,D:/rfq/notes.doc,FILE,Notes
RFQ,RFQ00001,,D:/quotes/guidelines.doc,FILE,Price Quote Guidelines
SPECIFICATION,SPEC0023,,D:/specs/rohs.doc,FILE, ROHS Guidelines
SUBSTANCE,SUB0104,,D:/subs/cas_numbers.doc,FILE,CAS Numbers
SUPPLIER,DISTRIBUTOR00001,,D:/suppliers/wextronics.doc,FILE,Wextronics
Profile
```

Sample Index File Used to Upload References to Files

The following rows are from another sample comma-delimited Index file that uses the INPLACE attachment type.

Important The INPLACE attachment type is supported only if you use the FileLoad utility in Java Client and the Agile PLM administrator has set up a Custom (read-only) file vault. See Setting Up a Custom File Vault on page 148. Web Client's FileLoad utility does not support INPLACE attachments.

```
ITEM,P00240,A,dwg/00240a.dwg,INPLACE,CAD Drawing
ITEM,P00262,B,dwg/00262b.dwg,INPLACE,CAD Drawing
ITEM,P00262,(C),dwg/00262c.dwg,INPLACE,CAD Drawing
ITEM,P00310,A,dwg/00310a.dwg,INPLACE,CAD Drawing
ITEM,P00337,A,dwg/00337a.dwg,INPLACE,CAD Drawing
```

Sample Index File Used to Upload URLs

The following rows are from another sample comma-delimited Index file that uses the URL attachment type.

```
FILEFOLDER,FOLDER00010,,http://www.yourcompany.com,URL,Home Site
FILEFOLDER,FOLDER00010,,http://www.yourcompany.com/Mfg/,URL,Manufacturi
ng Services Site
FILEFOLDER,FOLDER00010,,http://www.google.com,URL,Google
```

Loading Multiple Files into the Same File Folder

If consecutive rows of the Index file have the same **PrimaryKey** value (that is, they reference the same object), FileLoad can either create a separate file folder for each file or put the files in one file folder. For example, the following rows from an Index file reference the same item, 76-2063:

ITEM,76-2063,D,C:/load/fileload/2063P1.tif,FILE,AMP Specifications

ITEM,76-2063,D,C:/load/fileload/2063P2.tif,FILE,

If you unchecked the box named **Create a Separate Folder for** Each **File**, the same description will be used for both files and they will be added to the same file folder. If you check the **Create a Separate Folder for Each File** box, then separate file folders will be created for them with separate file descriptions.

Another way to create separate file folders and separate file descriptions for consecutive rows that have the same **PrimaryKey** value is to add a blank row with a carriage return between the rows. This works regardless whether the **Create a Separate Folder for Each File** box is checked or unchecked. However, the consecutive rows that have the same **PrimaryKey** value must also have the same attachment type. A FILE and a URL attachment cannot be added to the same file folder

How File Manager Locates INPLACE Files

To locate a file, File Manager iterates through all vaults (both standard and custom) until it finds the first matching file. If there are files with duplicate filenames in different vaults, it's possible to upload a reference to the wrong INPLACE file. To uniquely identify an INPLACE file located in a file vault, make sure its path is unique even if its filename is not.

Note	File Manager information is downloaded and cached when the server is started. If you used Java Client to add a new custom (read-only) vault, don't forget to restart the File Manager. Otherwise, File Manager won't be able to find the new vault.

Processing Attachments

After you have created your attachment Index file, you can start FileLoad and process the attachments.

Caution	Be aware that different users may have rights to load files to different file vaults. If you are supervising the loading of a large number of files with different users (for example, over day and night shifts), be aware of the influence of the login user on any machine being used for processing.

To start FileLoad:

12. In either Java Client or Web Client, Choose **Tools > FileLoad**.
13. Specify the Index file and other FileLoad options. For a list of options, see table below.
14. Click **OK** (in Java Client) or select **Start Loading** (in Web Client) to begin loading files.

The following table lists and describes FileLoad options.

Option	Description
Index File	Click **Browse** to locate and select the attachment Index file. The path and filename of the attachments Index file appears. **Note:** It is recommended that .LOG and .BAD not be used as filename extensions for the Index file. The extension of the Index file can be anything as long as its content is in ASCII encoding, but it is helpful to pick an extension that will not be confusing.
Attribute Delimiter	Select the delimiter used in the Index file. You can select **Tab** or select **Other** and provide another delimiter in the field. For **Other** delimiters, only the following characters are allowed: <space> , | ; ‘ [ ] ‘ < > ? " { } ~ ! @ # $ % ^ & * ( ) _ + - = You cannot use any characters that are created by pressing ALT+keypad combinations. Do not use alphanumeric characters. **Note:** Do not use a colon (:), period (.), slash (/) or backslash (\) in the **Attribute Delimiter**, **Attribute Name-Value Separator**, **Text Qualifier**, and **MultiList Delimiter** fields, as those characters can be used in the filename or path.
Attribute Name-Value Separator	Select the delimiter used in the flex fields. This delimiter must adhere to the same rules listed for attribute delimiters, but cannot duplicate the choice for any other delimiter.
Text Qualifier	The delimiter used to specify a text string within the Index row. It is recommended that this be set to quotes, but it can be set to any valid delimiter. This delimiter must adhere to the same rules listed for attribute delimiters, but cannot duplicate the choice for any other delimiter.
Multilist Delimiter	This delimiter is used to separate entries in a multilist field. The default is a semicolon, but it can be set to any valid delimiter. This delimiter must adhere to the same rules listed for attribute delimiters, but cannot duplicate the choice for any other delimiter. **Note:** The Attachments tab does not have MultiList flex fields, but the Files tab of File Folder objects does. Consequently, the Multilist Delimiter is used only if you are loading files into File Folders.
Number of Dedicated Threads (Java Client)	Enter a value from 1 to 100 to specify the number of threads dedicated to the FileLoad process. Increasing the number of dedicated threads, particularly if the client and server are multiprocessor machines, can improve FileLoad performance.

Option	Description
Attach to the latest revision when the specified revision cannot be found	Select this option if you want files for items containing revision values that do not exist in the Agile PLM database to be attached to the latest released revision of objects in Agile PLM. If no released revisions exists, Fileload adds the file to the Introductory revision. (The **SecondaryKey** field in the Index file holds the revision value of the item.) The attachment is rejected and written to the Bad file and Log file under the following conditions: ▫ If you do not select this option, the Index file attachment rows for items containing revision values that do not exist in the Agile PLM database are rejected and written to the Bad file and the Log file for later troubleshooting. ▫ If **Attach to the Latest Revision** is checked, the file is attached to the latest released revision of the object. If the object is in Preliminary status, it is attached to the Introductory revision. ▫ When an Index file contains a blank **SecondaryKey** field, the file is attached to the Introductory revision of an item. The Null revision in the Index file means the Introductory revision. ▫ To upload files to pending revisions, the revision value in the Index file should be enclosed in parentheses, for example, (A) or (1.0).
Attach Files to Incorporated Items	Check this box if you want to allow attachments to be added to incorporated Items (assuming you have appropriate privileges). If this box is not checked, and FileLoad attempts to attach files to an Item that has been incorporated, you may see the message "Cannot perform this operation because the object <Object number> has been incorporated." **Note:** If any item in your Index file is already incorporated, make sure **Attach Files to Incorporated Items** is checked.
Create a Separate Folder for Each File	When this box is checked, FileLoad load files into separate file folders. Otherwise, FileLoad handles consecutive rows that have the same **PrimaryKey** value differently. It uses the same file description for both files and adds the files to the same file folder.
Log File Directory (Java Client)	Specify a location in which to create log files.
OK (Java Client) **Start Loading** (Web Client)	Starts reading the Index file and processing attachments.
Close (Java Client) **Cancel** (Web Client)	Closes the FileLoad window or page. **Note:** The **Cancel** and **Close** buttons are disabled once the loading process has started.

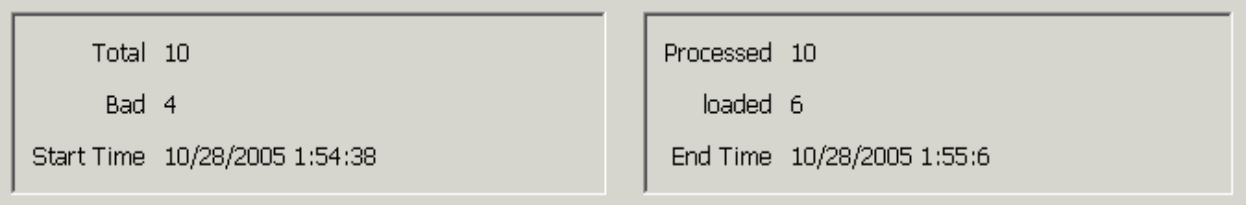
Important If FileLoad stops without a completion message, it may have encountered severe network difficulties and not completed the load. In this case, you must validate that the last file in the "load" is in the target database. If it is not and it does not appear in the Bad file, you must determine where FileLoad stopped, then load the remaining files.

Evaluating the Results

This section describes how to evaluate FileLoad results in the Java Client and Web Client.

Evaluating FileLoad Results in Java Client

In Agile Java Client, the FileLoad summary appears in an expanded portion of the FileLoad window.



FileLoad log files are stored in the specified Log File Directory. You can open the log files in a text editor to view them. For each session, FileLoad creates the following log files:

- *indexfile*.*date*.*time*_BAD – Contains the rows from the Index file that were rejected during the FileLoad process.
- *indexfile*.*date*.*time*_LOADED – Contains the rows rejected from the Index file that were successfully loaded during the FileLoad process.
- *indexfile*.*date*.*time*_LOG – Contains each row from the Index file that was rejected during the FileLoad process, along with an error message.
- *indexfile*.*date*.*time*_SUMMARY – Contains the FileLoad summary information.

> **Note** If you rename the log files and give them a **.TXT** extension, they will automatically be associated with a text editor.

Evaluating FileLoad Results in Web Client

In Agile Web Client, the FileLoad Summary appears after FileLoad has finished processing the Index file attachments.

Attachment loading results are shown in FileLoad Summary.

Click View Bad File to open or save the log of bad records (LogFile.BAD). It contains rows from the Index file that were rejected during the FileLoad process.

Click **View Log File** to open or save the log file (LogFile.LOG), which contains each row from the Index file that was rejected during the FileLoad process, along with an error message.

> **Note** Agile recommends that you save log files to disk first and then view them. When you save a log file, add **.TXT** as the extension so the file is automatically associated with a text editor.

To close the FileLoad page, click **Done**.

Sample Log File Output

Each rejected Index file row in the Bad file is also written to the Log file with an explanatory error message:

```
CHANGE,23450,,D:/dwg/0021c.dwg,FILE,Torque Widget
< Cannot find the file to be attached. >

ITEMBAD,1000-02,666,D:/dwg/0021c.dwg,FILE,Torque Widget
< Invalid object type. >

MFR,MFR_TEST1,,D:/dwg/0031e.dwg,FILE,Cap Widget
< Object not found. >
```

Revising and Reloading Rejected Attachments

Each rejected row from the Index file is written to both the Bad file and the Log file.

- The Bad file contains only the rows rejected from the Index file.
- The Log file is the same as the Bad file, but also includes an explanatory error message for each rejected attachment row.

Use the error messages in the Log file as a guide to revising the rejected rows in the Bad file.

Important	Do not commit to using the loaded-in files until you have verified that they are exact copies of the source files. That is, all source files should be preserved while there remains any possibility that a file or files could be needed if there was a problem during the loading operation.

To work with the Log and Bad files:

15. Locate the Bad file and Log file, and open each in a text editor.
16. Revise the rejected attachment rows in the Bad file, using the error messages in the Log file.
17. Save the revised Bad file as a new Index file, but add a number to the filename. For example, IndexBAD1.txt. This allows you to avoid overwriting the original Index file, and maintains an archive of processed Index files.
18. Select and process the new Log file. See Processing Attachments on page 156.
19. Repeat this revision and reloading process until no more bad records appear in the FileLoad Summary.

Caution	FileLoad will attach all specified files again if it is re-run against an Index file that has already been loaded. If you are using multiple Index files, always track which files have been loaded successfully. It is difficult and time-consuming to determine and remove duplicate attachments.

Error Messages

This section lists FileLoad error messages you may encounter with applicable descriptions:

Attachment tab is invisible

Attachment tab of the objects that you want to add files is not active in Administrator. Attachment tab must be marked visible by an Agile PLM administrator using Agile Java Client.

Cannot find the file to be attached

Revise and correct the path and spelling of the attachment file name in the Index file entry. If you attached a URL, note that the supported protocols are FTP, HTTP, file, and HTTPS; there is no verification of the address.

Cannot find object <primary key>

The target object to receive the attachment cannot be located in the database. The object is the combination of the first three row fields: *ObjectType, PrimaryKey,* and *SecondaryKey*. Verify that the values for these fields are entered correctly in the Bad file and that an object of that name exists in the database. Add the object or modify the Index file, as necessary.

Cannot find specified revision

The Item revision identifier in the Index file does not exist in the database, and **Attach to latest revision** was not selected in the FileLoad Options. See Processing Attachments on page 156.

Cannot find the Index file or the Index file is empty

The path of the Index file is not correct (if you entered the Index file path manually) or the Index file you located is empty.

Cannot find the list value

All or some list values for flex List or Multilist fields are not valid.

Cannot perform this operation because the attachment is checked out

The file folder for the specified attachment is checked out, so the file can't be uploaded. Make sure the file folder is checked in, and then use FileLoad again to upload the file.

Cannot perform this operation because the object <Object number> has been incorporated

The attachment table is read-only because the Item is incorporated by an ECO. To add attachments to incorporated Items, make sure **Attach Files To Incorporated Items** is checked in the FileLoad Options dialog box.

Failed to attach files

Reason for rejection unknown or the result of multiple errors. Make sure the object exists in the database, check the Index file entry, and retry. Make sure that you have the Creator role.

Empty files are not valid to be added.

Attached files are 0 (zero) in size.

File Servers may be down. Please check the File Server Configuration

The Agile File Manager server is down. Go to the machine where File Manager is installed and start it. On Windows, this involves starting the Apache Tomcat service.

Invalid date format

The date format in flex Date fields is not in accordance with the Date/Time formats in the user's profile.

Invalid number

The value for flex Numeric fields is not numeric (for example, it could include a letter string).

Invalid object type

Be sure the Index file row starts with a valid object type keyword. See Object Type Keywords on page 153.

Invisible attribute fields.

The specified flex field is not visible. Flex fields must be enabled (that is, made visible) in the Administrator function.

Not a legal attachment type. Must be FILE or URL or INPLACE.

If you use the FileLoad utility in Web Client, the AttachType (attachment type) field value must be FILE or URL. If you use the FileLoad utility in Java Client, a third attachment type, INPLACE, is supported.

Number of fields provided is less than the minimum required.

Each Index file row must have at least six delimited fields. Empty fields must be marked by a double set of delimiter characters.

Note When using the tab as the delimiter, be sure there is no tab after the last field in each row.

Primary Key (2nd) field empty.

The second field – **PrimaryKey** – is always required. It must always contain, depending on the base class, a valid object number or name. See Primary and Secondary Keys on page 153.

The attribute fieldname was not found in the Attachments tab.

This message indicates that the specified flex field name cannot be found. Flex fields must be enabled (that is, made visible) in the Administrator function. Also, if the **Attribute Name-Value** separator in Index files is not correct, the field name cannot be properly identified.

The number length exceeds Maxlength.

The string length for flex Numeric fields exceeds the Maxlength defined in Administrator.

The number value is not between Min Value and Max Value.

The value for flex Numeric fields is not between Min Value and Max Value defined in Administrator.

The string length is not between 0 and Maxlength.

The string length for flex Text fields exceeds the Maxlength defined in Administrator

The user has insufficient privileges.

The user has insufficient privileges to files attached to objects.

Unable to connect to Agile Application Server.

Make sure that the PLM Application Server is running and that you log in as a user with the Checkin privilege.

Appendix A

The Agile aXML Schema for Exporting Data

This Appendix includes the following:

Change History

The following table summarizes the major schema changes that occurred in each release.

Release #	Schema Location (URL)	Changes
9.3	http://support.agile.com/misc/axml/2009/06	▫ New fields were added for Release 9.3: `RedlinedItemAttributes` node added to `ChangeOrders`, `AffectedItems` to support `Redline TitleBlock` ▫ Corrected error in Affected Item references to `ItemMultitext41` to `45` which were mislabeled `ItemMultitext51` to `55`)

Overview

The Agile aXML schema provides the XML Schema Definition (XSD) for the aXML structure. This appendix lists and describes the key components of the aXML schema. You can access this file at http://support.agile.com/misc/axml/2009/06/.

When you export Agile objects to aXML files, the exported data is a zipped file that contains an `agile.xml` file with extraction data and any file attachments that were included in the extraction.

Object References

Within an aXML package, related objects are cross-referenced by their IDs. To support this

requirement, all objects have their own unique ID attributes identification purposes and to be referenced by `referentId` attributes in corresponding nodes.

For example, if you export a change and its affected items, the `ChangeOrders` node will have an embedded `AffectedItems` node with a `referentId` attribute that will correspond to the `uniqueId` attribute of a Parts node that is in the same aXML package.

Specifically, your aXML package would contain the following data:

```
<ChangeOrders uniqueId=”6000:6119455”>
    ...
    <AffectedItems referentId=”10000:6119451:6119455”>
    ...
    </AffectedItems>
    ...
</ChangeOrders>
<Parts uniqueId=”10000:6119451:6119455”>
    ...
</Parts>
```

Similar references can be found, for example, between BOM Items and their corresponding parts.

Null Values

If an attribute of an object does not have a value, then the resulting aXML extraction of that object will not contain a node for that corresponding attribute. For example, if you have a part with Page Two.Text01 enabled, and for some object P1, the Text01 field does not contain a value, then this information will not appear within the aXML extraction.

In this example, if Page Two.Text02 is also enabled, and for P1, it has the value “value”, the aXML package would resemble the following:

```
<Parts uniqueId=”10000:6119451:6119455”>
    <TitleBlock>
      <Number>P1</Number>
      ...
    </TitleBlock>
    <PageTwo>
      <Text02>value</Text02>
    </PageTwo>
</Parts>
```

If P1 is subsequently edited, and Text01 gets a value set, then the aXML could look something like this:

```
<Parts uniqueId=”10000:6119451:6119455”>
    <TitleBlock>
      <Number>P1</Number>
            ...
    </TitleBlock>
    <PageTwo>
      <Text01>new value</Text01>
      <Text02>value</Text02>
    </PageTwo>
</Parts>
```

Attribute Names

The aXML schema uses a “fixed” schema. This means the attribute names of the object attributes are static. For example, If you change the name of the Parts Page Two Text01 attribute to “My Field”, the extracted aXML data will still use “Text01” as the node name for that field. Using the example shown in the previous section, regardless of the name you assign to this field, the Text01 node will still be extracted as Text01.

Dates

In the aXML package, date fields are always represented in the GMT zone when Export is invoked. For example, even though a field such as the date a change was released appears in your local time zone through the User Interface, the aXML extraction process will always extract the data in the GMT time zone. The date format follows the w3c conventions, with the inclusion of the time zone indicator (see http://www.w3.org/TR/NOTE-datetime for specifics).

MultiList Fields

When a MultiList field is extracted to aXML, the different values for the field are extracted to separate Value nodes. For example, if a part’s Page Two MultiList01 field was extracted, the result would resemble the following:

```
<PageTwo>
    <Multilist01>
           <Value>List Value 1</Value>
           <Value>List Value 2</Value>
    </Multilist01>
</PageTwo>
```

User Defined Flex Fields

For user defined flex fields, extraction will produce `FlexAttribute` nodes, each of which will have a name and value subnode. The value node will have an attribute indicating the type.

The `FlexAttribute` nodes (for Page Two or Page Three) will all be contained within a `FlexAttributes` node where `xxxx` is the attribute ID for the Flex Field attribute.

```
<FlexAttributes>
    <FlexAttribute Id=”xxxx”>
           <name>name</name>
           <value xsd:type=”xsd:string”>value</value>
    </FlexAttribute>
</FlexAttributes>
```

The following examples show sample outputs for different flex field types.

Date

```
<FlexAttribute Id=”2623172”>
    <name>Date Field</name>
    <value xsd:type=”xsd:string”>2008-01-01T00:00:00Z</value>
</FlexAttribute>
```

List

```
<FlexAttribute Id=”2623173”>
    <name>List Field</name>
    <value xsd:type=”xsd:string”>List Value 1</value>
</FlexAttribute>
```

Money

```
<FlexAttribute Id=”2623174”>
    <name>Money Field</name>
    <value xsd:type=”MoneyType” Currency=”USD”>100.00</value>
</FlexAttribute>
```

MultiList

```
<FlexAttribute Id=”2623175”>
    <name>MultiList Field</name>
    <value xsd:type=”MultiListType”>
           <Value>List Value 1</Value>
           <Value>List Value 2</Value>
    </value>
</FlexAttribute>
```

MultiText

```
<FlexAttribute Id=”2623176”>
    <name>MultiText Field</name>
    <value xsd:type=”xsd:string”>abcdefg</value>
</FlexAttribute>
```

Numeric

```
<FlexAttribute Id=”2623177”>
    <name>Numeric Field</name>
    <value xsd:type=”xsd:string”>1234</value>
</FlexAttribute>
```

Text

```
<FlexAttribute Id=”2623178”>
    <name>Text Field</name>
    <value xsd:type=”xsd:string”>abc</value>
</FlexAttribute>
```