Product Interchange User Guide

Release 9.2.1

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Revision	Date	Pages Affected	Description
A	5 May 2006	All	Initial release of manual.

PREFACE

The Agile documentation set includes Adobe® Acrobat™ PDF files. The Oracle Technology Network (OTN) Web site contains the latest versions of the Oracle|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 Oracle|Agile Documentation folder available on your network from which you can access the Oracle|Agile documentation (PDF) files.

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 www.adobe.com.

The Oracle Technology Network (OTN) Web site can be accessed through **Help > Manuals** in both the Agile Web Client and the Agile Java Client. If applicable, earlier versions of Oracle|Agile PLM documentation can be found on the www.agile.com/support.

If you need additional assistance or information, please contact **support@agile.com** or phone (408) 284-3900 for assistance.

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

Readme

Any last-minute information about Oracle|Agile PLM can be found in the Readme file on the Oracle Technology Network (OTN) Web site.

Agile Training Aids

Go to the Agile Training Web page for more information on Agile Training offerings.

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CHAPTER 1
Using Product Interchange

The Product Interchange User Guide is designed to provide users with simple instructions for using the Product Interchange system. The User Guide is broken into the following sections:

- *Functional Overview*
- *Product Interchange Process*
- *Starting Agile Product Interchange*
- *Creating a Validation Project*
- *Performing Bulk Edits*
- *Exporting Validation Projects*
- *Comparing AMLs*
- *Performing Structural Validation*
- *Performing Part Searchs*
- *Creating Manufacturer Name Aliases*
- *Selecting MPN Aliases*
- *Validating Manufacturer Parts*
- *Finding Alternate Parts*
- *Assigning Commodity Codes*
- *Exporting Validation Projects*

Functional Overview

The Agile Product Interchange solution enables users to identify any structural or parts related issues in BOMs/AMLs and resolve these issues in a systematic fashion.

The **Product Translation** function performs automated conversion of a wide range of text-based BOM/AML formats into user-defined format. The supported input formats include:

- MS-Excel, MS-Word, Text, HTML, PDX formats
- Single/Multiple Levels, Single/Multiple Files
- Delimited/fixed width formats, Complex rows/columns, Multi-line fields, Wrap-around fields

It also performs comprehensive 'rules-driven' validation of the BOM/AML structure and provides an interactive framework for correcting errors.

The **Product Cleansing** function performs manufacturer name aliasing by converting manufacturer name variants into standard 'corporate' manufacturer names. It also performs part number aliasing by mapping 'dirty' incoming part numbers (manufacturer or internal) to parts numbers previously 'cleaned' in the organization. Over a period of time this knowledge base of manufacturer name aliases and part number aliases leads to more accurate parts information through out the PLM processes.

The **Product Validation** function enables users to confirm the accuracy of part information by matching against reference databases or parts catalogs. This also enables users to find alternate replacement parts where issues are detected.

The **Product Enrichment** function provides a framework for adding a breadth of attributes to the individual part / item records to make the product information more complete and usable throughout the product lifecycle. The additional product attributes can be sourced from one or more reference sources.

Product Interchange Process

The broad capabilities offered by Agile Product Interchange for processing BOMs and AMLs can be executed by following a standard series of steps outlined in the following sections. Based on the business use cases, some of these steps may be skipped altogether or performed multiple times to achieve the desired goals.

The standard steps are as follows:

1. Submitting Input Files

   The first step is to select the files to be processed and submit them into Agile Product Interchange.

2. Performing Bulk Edits

   Once the files have been submitted, the format translation is performed automatically and the user is presented with a screen to edit specific fields in the input file as necessary.

3. Performing Structural Validation

   The next step is to select from a pre-defined set of rules that can be used to validate the structure and the integrity of the input file. Once the validation has been performed, the user is presented with a screen to interactively correct any errors found during the validation process.

4. Performing Part Search

   Part number specific errors can be corrected by performing an online search for part numbers in one or more reference data sources connected to Agile Product Interchange

5. Resolving Manufacturer Names

   In the next step, any manufacturer name variants that are found in the input file are automatically aliased to standard manufacturer names. When entirely new variants are detected, the user is provided an interface to create new aliases for automated re-use in the future.

6. Selecting Part Number Aliases

   In this step, the user is presented with all the part number aliases that are currently available in the Agile Product Interchange knowledge base. The user has the option to select specific aliases to be included in the file being processed.

7. Performing AML Adds/Deletes

   After Manufacturer Name and Part Number aliasing has been completed, the user is given the option to add or delete entries to the AML being processed. This can be done either by manually entering new part records from the user interface or by part number matching against reference ERP/PDM systems connected into Agile Product Interchange.

8. Validating Manufacturer Parts

   In this step, all the part numbers in the file are validated in bulk against a reference source like a parts catalog.

9 Finding Alternate Parts

The user can also search for alternate parts where necessary to replace parts with issues or to add new sources of equivalent parts.

10 Assigning Commodity Codes

Once all the parts information has been cleaned and validated, the user is able to assign Commodity Codes to individual parts or part groups.

11 Exporting Processed Files

The processed file can be exported to Agile PC along with the automated creation of relevant change order (ECO/MCO). The processed file can also be exported as a PDX package or in MS-Excel format to allow easy import into downstream systems.

Starting Agile Product Interchange

To start Agile Product Interchange:

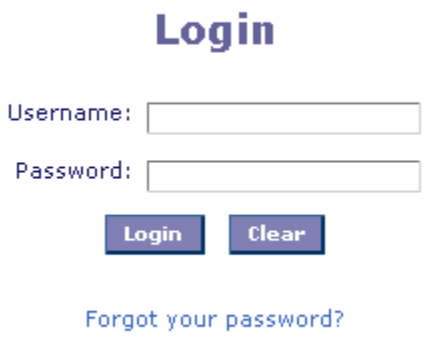
1 Start your browser.

2 Click the Agile Product Interchange bookmark, if one exists, or type the URL of the server where Agile Product Interchange is installed.

3 Enter your username. Your username is case-sensitive.

4 Enter your password. Your password ***is*** case-sensitive.

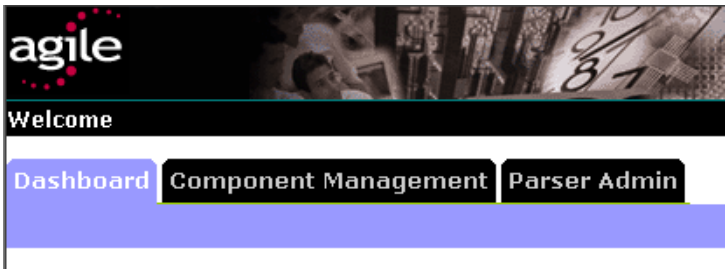
You can change your password at any time by clicking the **Profile** link after you have logged into Agile Product Interchange. If you forgot your password, click on the **Forgot your password?** link and enter your user name and email address. Your password will be emailed to you.



5 Click the **Login** button.

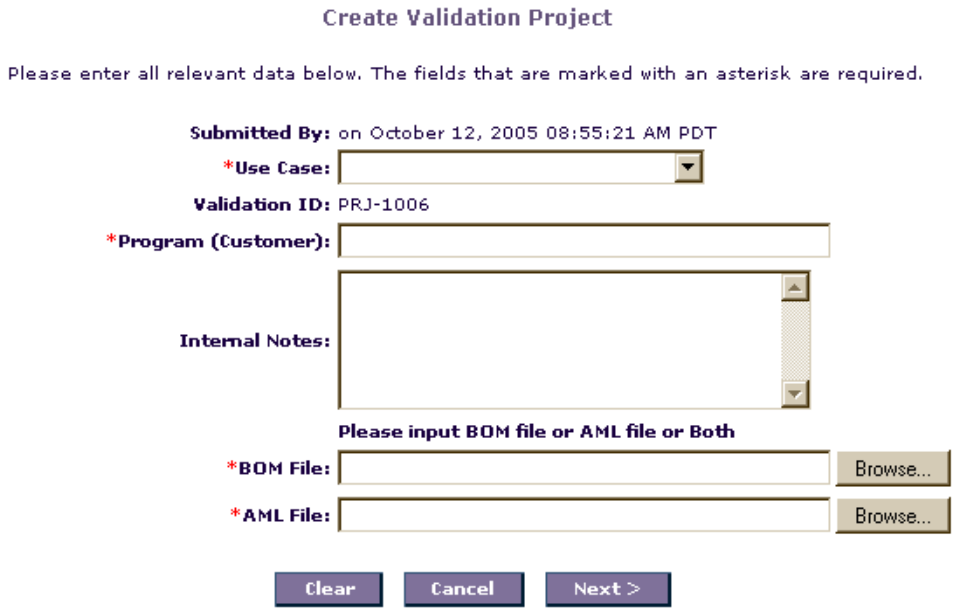
If you make a mistake, click **Clear** and retype your username and password. The login process is complete.

Once you log into Agile PI, you will be presented with a user interface, which organizes application functionality across several tabs. Based on the privileges that have been configured by the administrator you will see 2 or more tabs. These are:



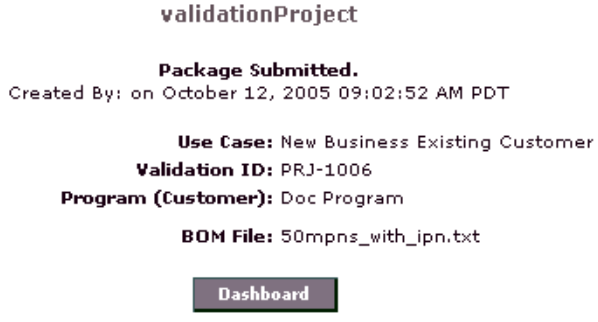
- **Dashboard Tab** - This is the default tab that you see upon login. It displays all current projects undergoing validation and allows you to start working on any existing project.
- **Component Management Tab** - This allows you to Create new validation projects or search the database for a specific project

Creating a Validation Project



To create a validation project:

1. From the Component Management tab, click on the **Create** link (located just under the Component Management tab).
2. Select a **Use Case** from the drop-down list.
3. Enter the **Program (Customer) name** associated with the validation project.
4. Add any Internal Notes associated with the validation project.
5. Browse for and select the **BOM/AML files requiring validation**. Note that in many cases, only one file will be required, containing both BOM and AML data. Only in cases where there are separate files for BOM and AML data would both selections be completed.
6. To initiate the parsing process, click **Next**.
7. If you realize that data has been entered in error, click **Clear** to empty the fields and start over.
8. If necessary, click the **dashboard** more than once to see your new project. This is sometimes necessary if it is a mid to large-size project.



Once you have created a validation project, you will see a summary of the project.

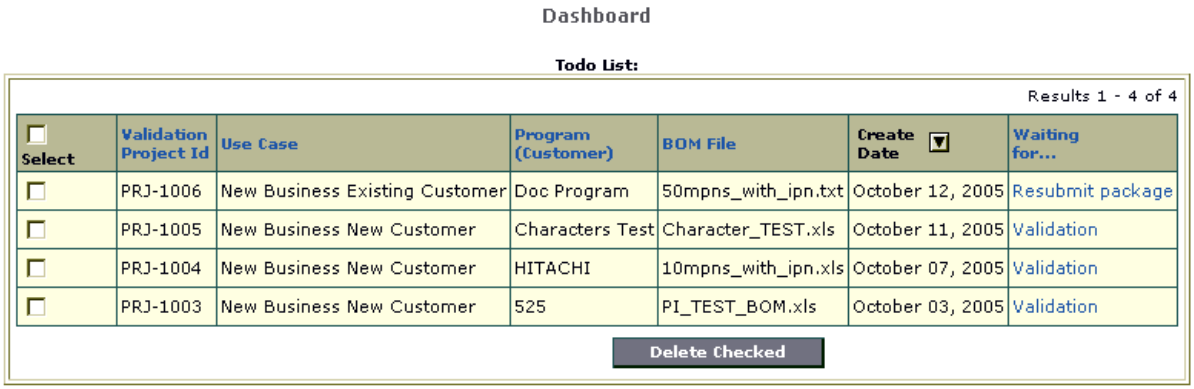
To view your project, go to the Dashboard:

1 Click the **Dashboard** button.

Important Once the files have been submitted, relevant parser profiles will be invoked to perform translation of input file format to the standard format defined during deployment. If the appropriate parser profiles are not found, the user if notified that new parser profile should be created. Please refer to Administrators Guide for creating new parser profiles.

Using Dashboards

Agile Product Interchange provides the ability to utilize a dashboard for the management of validation projects. These projects are retained in Product Interchange until removed by the system administrator. One advantage of the dashboard is the ability to initiate a validation project and save that project in order to return to it at a later time. This is especially valuable for extremely large projects requiring a good deal of time in the validation process.



Once you are in the Dashboard, you will see all projects assigned to you listed in a table. From the table, you can select a project by checking the checkbox next to the project.

Project Status

Based upon the workflow process, the dashboard will display the next working statusfor the project in the Waiting for... column. Those statuses include the following:

- **TLA Information** - this status indicates that the BOM/AML require, based upon the parser profile, the addition of a top level assembly (TLA) identifier
- **Validation** - this status indicates that the BOM/AML has parsed correctly and is now ready to have additional validation steps performed
- **Review Cleansed BOM** - this status indicates that the BOM/AML has been validated (and possibly exported), but is still available for additional validation processing
- **Create Parser Profile** - this status indicates that there was an error in the parsing of the BOM/AML and that the import should be attempted again
- **Resubmit Package** - this status indicates a problem with parsing the incoming BOM/AML data

To delete a project from the Dashboard:

1 Select the project you want to delete by checking the checkbox next to the project. To select all projects in the Dashboard, check the checkbox above the "Select" title.

Click the **Delete Checked** button, then click **OK** to delete the selected projects.

To view a validation project:

1 Click on the link on the **Waiting for . . . Column** to view the validation project. The project header is displayed with key information about the project. The screen also provides a brief history of actions that have been completd for the project.

The view screen also serves as the launching pad for various cleansing and validation activities for the selected project. These include:

- Bulk Edits - To view imported file and perform edit operations
- MFR Alias - To create aliases to clean manufacturer names
- MPN Alias - To select from known good aliases for manufacturer part numbers
- MPN Search - To search for manufacturer part numbers in external sources / catalogs
- Commodity Code - To assign commodity codes for part numbers in the project

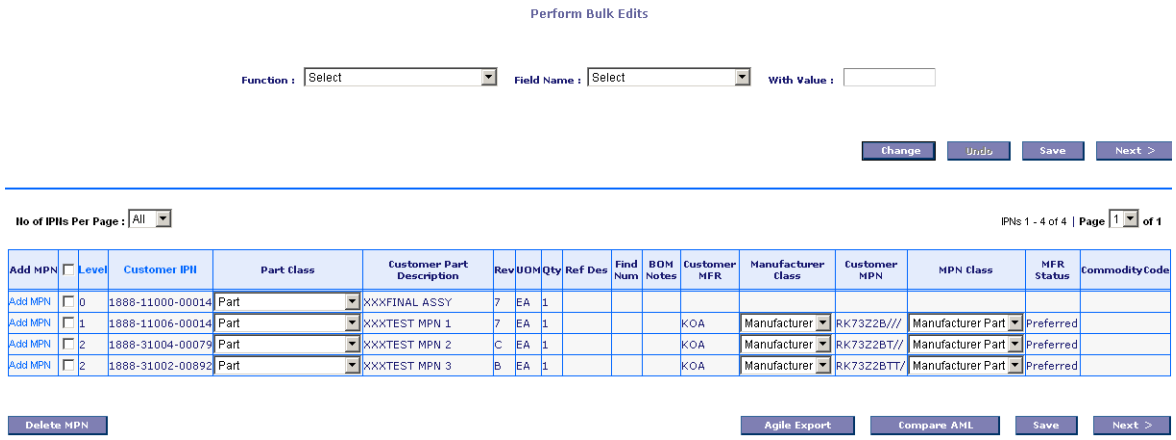
The general recommend process flow for most validation projects is as follows:

Bulk Edits --> MFR Alias --> MPN Alias --> MPN Search --> Commodity Codes --> Export.

However, a user can choose to perform selected validation steps based on validation needs of a specific project. At any stage in the validation process, the user can click on the Dashboard tab to return to the dashboard and start a different project or choose a different validation step.

Performing Bulk Edits

The Bulk Edit enables users to make global changes across the entire file or to make changes to selected items and fields.



To perform bulk edits:

1. From the Dashboard, click the Validation link for the project you want to edit.
2. Click **Function** to select the edit function to be used. The pull down menu lists the available edit functions.
   - **Trim** - Allows you to trim "n" number of characters from the beginning or end of any column value and set the number of characters in a textbox.
   - **Prefix** - Add user-defined string to front of the value in the selected field.
   - **Suffix** - Add user-defined string to the end of the value in selected field.
   - **Constant** - Replace data in the selected field with a user-defined value
   - **Replace** - Replace data in rows identified by a specified matching criteria.
3. Click **Field Name** to select the field to be modified.

The pull down menu lists all the fields that can be modified. The fields displayed in this list will vary depending on the configuration. The standard fields include:

- **Level**- the assembly level of the item on the BOM
- **Customer PN**- the part number
- **Customer Part Description**- the description of the item
- **Rev**- the revision number of the item
- **UOM**- the unit of measure for the listed quantity
- **Quantity**- the quantity of the item used in the assembly or subassembly
- **RefDes**- the reference designators
- **Find Num**- the internal number used to locate the item on an Agile BOM
- **BOM Notes** - notes about the item
- **Customer MFR**- the manufacturer of the item
- **Customer MPN**- the manufacturer part number
- **MPN Status**- the part availability status, if listed in the AML

- **MFR Remarks**- manufacturer-related comments

4 Enter the value that will be used for bulk edit.

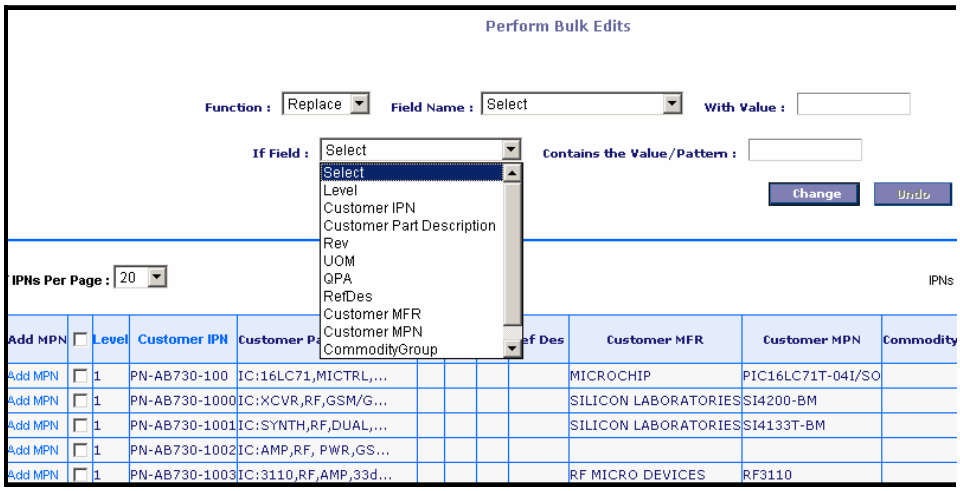
5 Select the rows on which need to be modified using check boxes.

6 Click **Change** to perform the edit operation.

7 Review changes on the screen. Click **Save** to save changes

These steps can be repeated as often as necessary to complete all the required edits.

To perform Conditional Replace bulk edits:



1 From the Dashboard, click the Validation link for the project you want to edit.

2 Click **Function** to select the **Replace** function.

3 Click **Field Name** to select the field to be modified.

4 Enter the value that will be used for bulk edit.

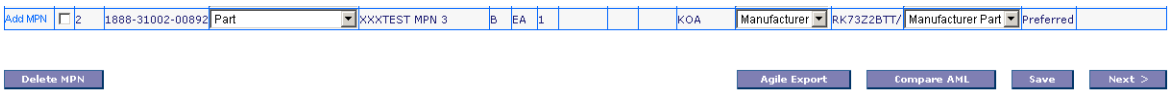
5 Define the condition to be used for selecting the rows to be modified. Click If Field to select the field containing the match pattern and enter the value of the match pattern in Contains the Value/Pattern field.

6 Click **Change** to perform the edit operation.

7 Review changes on the screen. Click **Save** to save changes

8 Click **Next>** to proceed to the next process step

These steps can be repeated as often as necessary to complete all the required edits.



To delete one or more MPNs from the project:

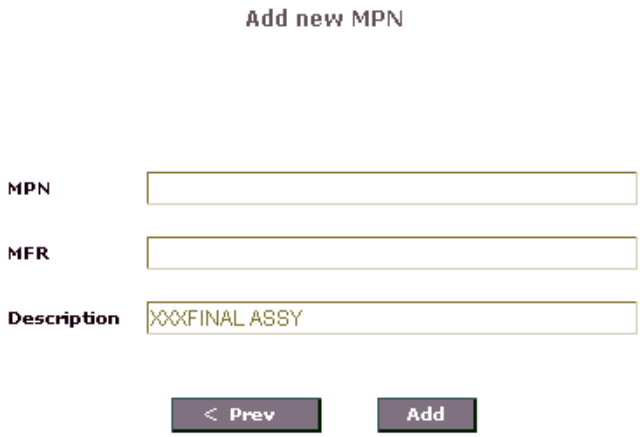
1 Select one or more MPNs by clicking the checkbox in the second column next to the MPN(s) you want to delete.

2 Once the selections are completed, click the **Delete MPN** button.

The MPN(s) will be deleted. Note that you cannot undo the delete and once you hit the Delete MPN button, the selected MPNs are deleted.

To Add MPNs to existing items in the validation project:

1 Click on the Add MPN link next to the item number. This brings up a pop-up box, which allows user to enter manufacturer and manufacturer part number information for the MPN to be added.



2 After all information has been entered, click on Add to create the MPN record.

Exporting Validation Projects

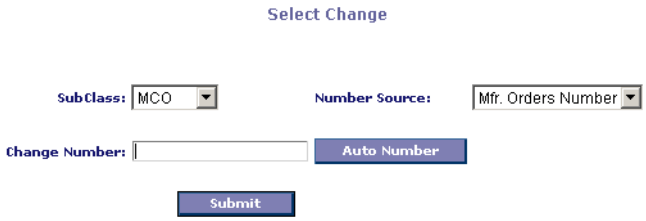
Use Export to export the BOM/AML to a PDX file or to Agile PLM.

To Export the BOM/AML to a PDX file:

1. From the Perform Bulk Edits page, click the Export Button. The process may take a few moments.
2. The SmartRule validation is kicked off automatically and the errors / warnings are presented to the user through the BOM/AML Edit All screen.
3. If no validation errors are found, go to Step 10. If validation errors are found, continue on to Step 4.
4. Every cell that has an error is highlighted either with Red or Yellow color. The 'Red' cells have errors that must be corrected before export can proceed further. The 'Yellow' cells may be addressed optionally.
5. Error and Warning Counts are displayed in the top right-hand corner of the screen.
6. To correct the error condition in a particular cell, place the cursor in that cell. The entire text in that field is displayed in the top left-hand corner of the screen. The specific error condition is displayed in the bottom left-hand corner.
7. Error correction can be done by directly typing in the correct value in the appropriate cell. The cell color changes to green to mark it as a 'corrected' cell.
8. Do as many corrections as necessary and click **Save** to save these corrections.
9. Click **Re-Run** to run the validation again and ensure that all the errors have been corrected.
10. Click the **Export PDX** Button to begin exporting the BOM/AML to a PDX file.
11. Click **Save** to Save the file to a specified location or click **Open** to open the file for viewing.

To Export the BOM/AML to Agile 9:

1. From the Perform Bulk Edits page, click the **Export** button. The process may take a few moments.
2. Click the **Agile Export** button to go to the Select Change page. Choose the Subclass and Number Source from their respective dropdown lists. To import to an existing Change, just enter the **Change Number**.



3. Enter the Change Number or click **Auto Number** to automatically assign a number to this field. Click **Submit** to export the BOM/AML into Agile 9. You will see an Agile Export Results Screen that will tell you the Change Number and Import Log. Review the Import log for errors and warnings.
4. Click **Next**, then enter the relevant notes in the Validation Notes and Additional Notes text boxes.
5. Click **Done** to see a summary of the export, then click **Dashboard** to return to the Agile Product Interchange Dashboard. The Project status on the Dashboard will change to **Review Cleansed BOM.**

   Note If you click **Dashboard**, you will return to the Dashboard with a Validation State—Not a Review Cleansed BOM state.

6. From the Dashboard, click the **Review Cleansed BOM** link to view the following reports that are generated upon completion of the validation:

- **BOM File** - This is the original file inputted into the validation file.
- **Mfr Report** - This is a Microsoft Excel Report that lists the manufacturer contained in that project.
- **Standard BOM/AML Report** - This reports presents the cleansed file in a standard Microsoft Excel format.
- **PDX file** - This is the PDX version of the cleansed file.
- **Validation Notes** - Any validation notes you made are listed in a summary fashion.

Closing a Project

You can close a project only from the Review Cleansed Button State. This will close the project and remove it from your Dashboard—not from the database. You can still search for the project once it's been removed from your Dashboard.

To close a project:

1. From the Dashboard, click the **Review Cleansed BOM** link.
2. Click the **Close Project** button, enter any comments you want to make in the Comments text box, then choose **Done.**
3. You will be taken to a Summary Page. From the Summary Page, choose the **Dashboard** button to return to the Dashboard. The project you closed is no longer listed on your Dashboard.

Comparing AMLs

Agile Product Interchange provides the capability to compare the AML for items in the validation project against the AML for the same items in a reference system (typically Agile PC or customer's ERP system). The connector to the reference system must be setup correctly during deployment for this functionality to work (see administrator's guide for Data source Configuration). This is especially useful for use cases where a new quote or a new version of the same product needs to be processed. The capability allows a user to identify new or missing AML entries for an existing item, based on comparison with the reference system. User can then decide to add / remove AML entries to the validation project as needed.

To perform AML Adds/Deletes:

Note The matching will be done using Internal Part Numbers.

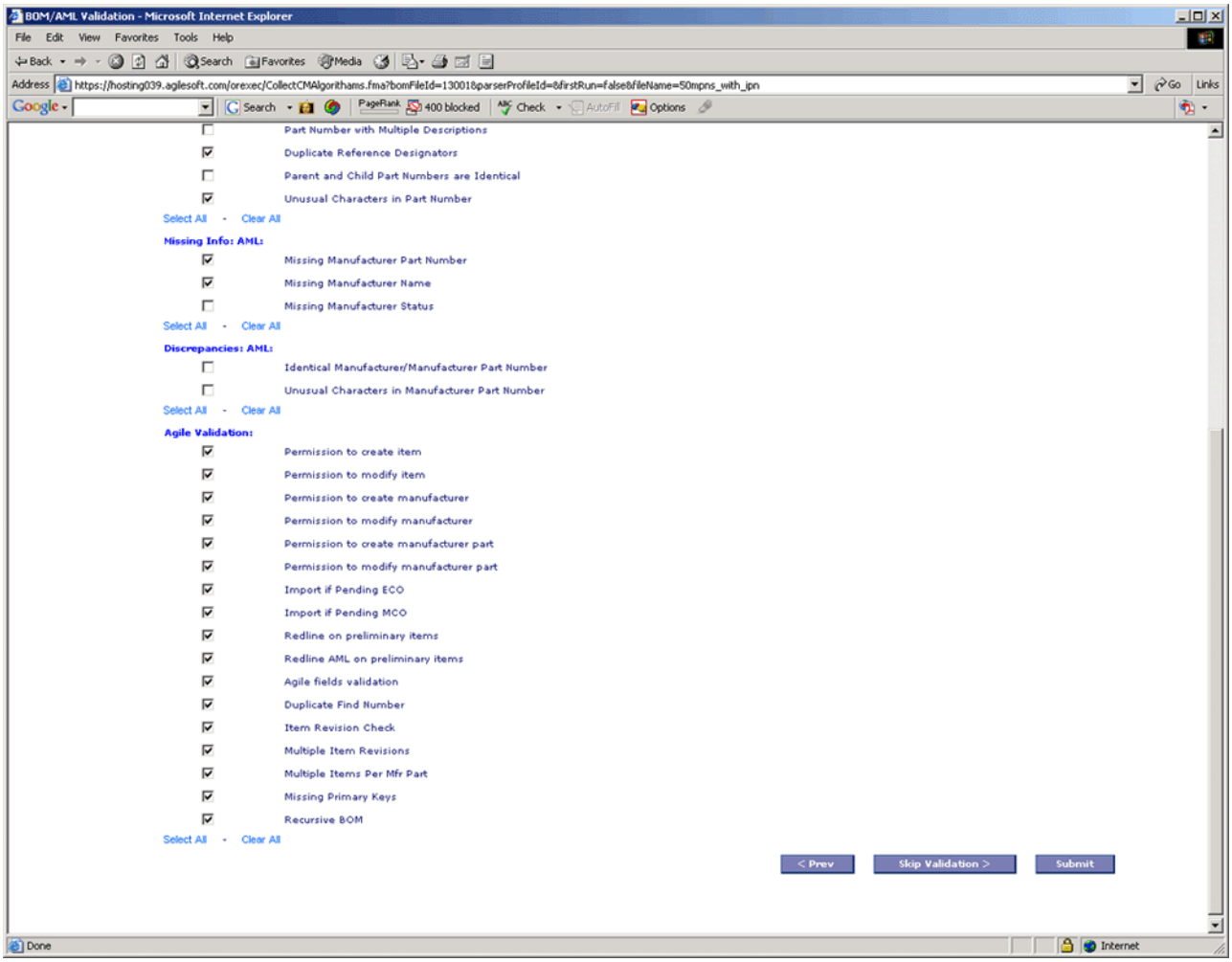
1. Click **Compare AML** to start the search in reference system (ERP/PDM). This brings up the Compare AML screen once the search is completed.

   If no matches are found for the Item numbers in the reference system, then the Compare AML screen will show no results.

   However, if any matches are found for the Item numbers, then the Compare AML screen shows the Item Number column followed by two columns for MPN & MFR from the validation project. The next two columns display MPN & MFR (AML entries) for the same Item number from the reference system. This allows side-by-side comparison of the two AMLs.
2. To add new parts from the reference source to the file being processed, make the selections in the Add column using checkboxes and Click **Save**.
3. To delete AML entries from the file being processed, make the selections in the Delete column using checkboxes and Click **Save**.
4. Click **Export PDX** to export the file being processed in PDX format.
5. To export the results of AML comparison select the records to be exported by using the **checkboxes in the Export column**. Then Click **Export AML Compare** to export selected records in MS-Excel format.
6. Click **Next** to proceed to the next step.

Performing Structural Validation

The Structural Validation of input file is driven by a pre-defined set of rules that can be turned on/off by the user.



To Skip the validation:

1 Click the **Skip Validation** button.

The Skip Validation button allows you to move directly to MFR Aliasing without performing the Structural Validation.

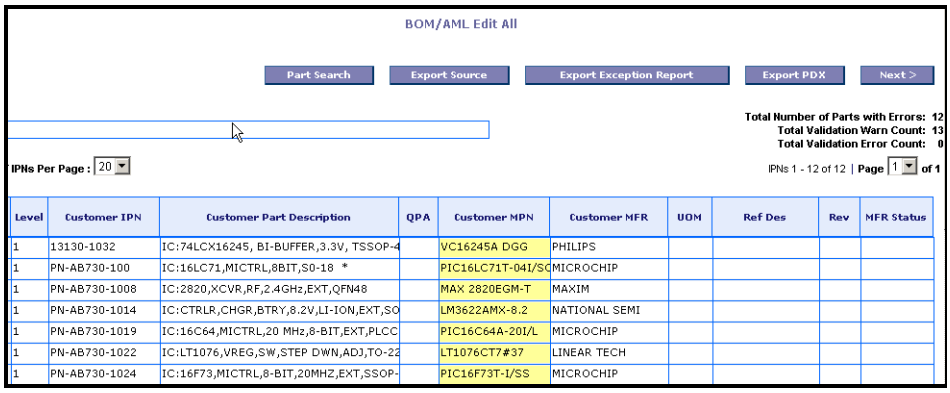
To perform structural validation:

1 Using the check boxes to select the rules you wish to apply during validation.

2 Click **Submit** to start validation.

3 The BOM/AML Edit All page appears after validation is complete. Errors are highlighted in Red color. These must be corrected before proceeding to the next step. Warnings are highlighted in Yellow color.

Note The BOM/AML Edit All page only shows records that contain an error or warning. It is not like the Bulk Edit screen that shows all records in the project.



Level	Customer IPN	Customer Part Description	QPA	Customer MPN	Customer MFR	UOM	Ref Des	Rev	MFR Status
1	13130-1032	IC:74LCX16245, BI-BUFFER,3.3V, TSSOP-4		VC16245A DGG	PHILIPS				
1	PN-AB730-100	IC:16LC71,MICTRL,8BIT,S0-18 *		PIC16LC71T-04I/SC	MICROCHIP				
1	PN-AB730-1008	IC:2820,XCVR,RF,2.4GHz,EXT,QFN48		MAX 2820EGM-T	MAXIM				
1	PN-AB730-1014	IC:CTRLR,CHGR,BTRY,8.2V,LI-ION,EXT,SO		LM3622AMX-8.2	NATIONAL SEMI				
1	PN-AB730-1019	IC:16C64,MICTRL,20 MHz,8-BIT,EXT,PLCC		PIC16C64A-20I/L	MICROCHIP				
1	PN-AB730-1022	IC:LT1076,VREG,SW,STEP DWN,ADJ,TO-22		LT1076CT7#37	LINEAR TECH				
1	PN-AB730-1024	IC:16F73,MICTRL,8-BIT,20MHZ,EXT,SSOP-		PIC16F73T-I/SS	MICROCHIP				

4 Click in the highlighted cells to display the error messages.

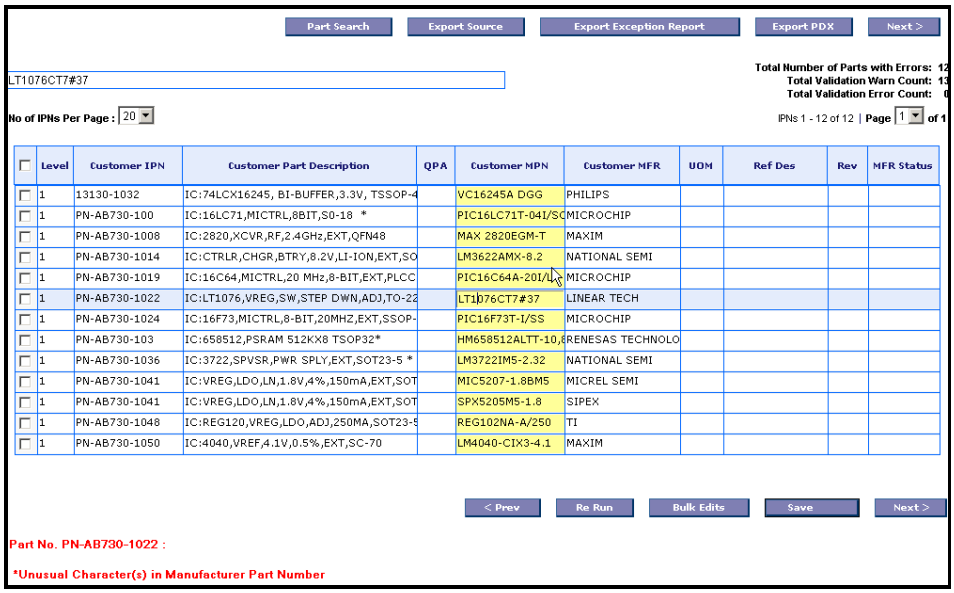
5 Full contents of the selected cell are displayed in the top, left hand corner.

6 The specific error condition is displayed in the bottom left-hand corner.

7 Error and Warning Counts are displayed in the top right-hand corner of the screen.

8 Any corrections can be made by directly typing in the cell with the error. The cell color changes to green to mark it as a 'corrected' cell.

9 Alternatively user has the choice to go back to the Bulk Edit screen to fix errors that repeat in multiple rows through out the file.



Level	Customer IPN	Customer Part Description	QPA	Customer MPN	Customer MFR	UOM	Ref Des	Rev	MFR Status
1	13130-1032	IC:74LCX16245, BI-BUFFER,3.3V, TSSOP-4		VC16245A DGG	PHILIPS				
1	PN-AB730-100	IC:16LC71,MICTRL,8BIT,S0-18 *		PIC16LC71T-04I/SC	MICROCHIP				
1	PN-AB730-1008	IC:2820,XCVR,RF,2.4GHz,EXT,QFN48		MAX 2820EGM-T	MAXIM				
1	PN-AB730-1014	IC:CTRLR,CHGR,BTRY,8.2V,LI-ION,EXT,SO		LM3622AMX-8.2	NATIONAL SEMI				
1	PN-AB730-1019	IC:16C64,MICTRL,20 MHz,8-BIT,EXT,PLCC		PIC16C64A-20I/L	MICROCHIP				
1	PN-AB730-1022	IC:LT1076,VREG,SW,STEP DWN,ADJ,TO-22		LT1076CT7#37	LINEAR TECH				
1	PN-AB730-1024	IC:16F73,MICTRL,8-BIT,20MHZ,EXT,SSOP-		PIC16F73T-I/SS	MICROCHIP				
1	PN-AB730-103	IC:658512,PSRAM 512KX8 TSOP32*		HM658512ALTT-10,	RENESAS TECHNOLO				
1	PN-AB730-1036	IC:3722,SPVSR,PWR SPLY,EXT,SOT23-5 *		LM3722IM5-2.32	NATIONAL SEMI				
1	PN-AB730-1041	IC:VREG,LDO,LN,1.8V,4%,150mA,EXT,SOT		MIC5207-1.8BM5	MICREL SEMI				
1	PN-AB730-1041	IC:VREG,LDO,LN,1.8V,4%,150mA,EXT,SOT		SPX5205M5-1.8	SIPEX				
1	PN-AB730-1048	IC:REG120,VREG,LDO,ADJ,250MA,SOT23-5		REG102NA-A/250	TI				
1	PN-AB730-1050	IC:4040,VREF,4.1V,0.5%,EXT,SC-70		LM4040-CIX3-4.1	MAXIM				

10 Do as many corrections as necessary and click **Save** to save these corrections.

11 Click **Re-Run** to run the validation again and ensure that all the errors have been corrected.

12 Click **Save** to save all the changes.

13 Click **Export Exception Report** to export error report in MS-Excel format

14 Click **Export PDX** to export the file being processed in PDX format

15 Click **Export Source** to export the input file in its original format

16 Click **Next** when done to proceed to the next step

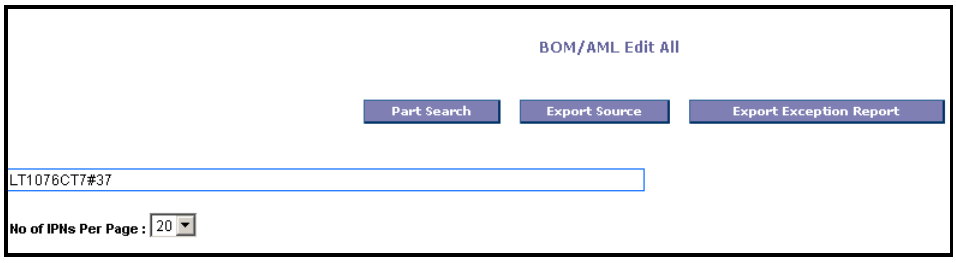
The structural validation can be repeated multiple times, with different rule selections, if necessary, to correct all the reported errors.

Performing Part Searchs

This function enables users to verify part numbers and their attributes on the fly while reviewing the errors reported during structural validation. The part search can be performed against any reference sourced connected to Agile Product Interchange. Note that this only occurs if there are errors in the validation.

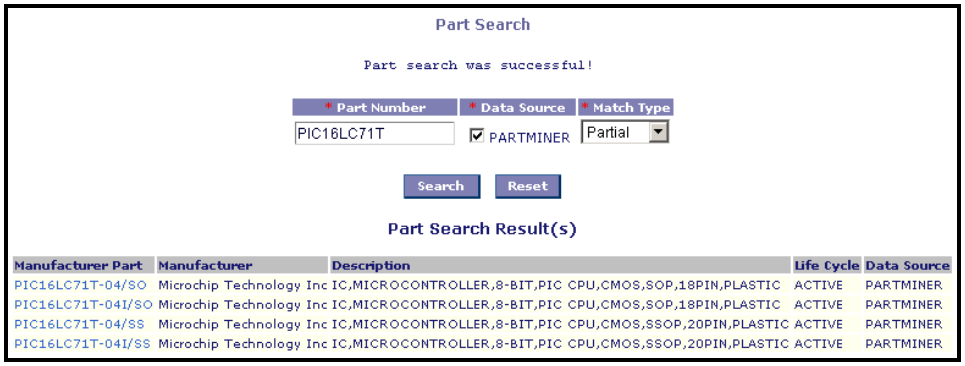
To perform part search:

1 Click **Part Search** on BOM/AML Edit All to bring up the **Part Search** screen.



2 Type (or paste) the part number to be verified in the **Part Number** field.

3 Type (or paste) the manufacturer name to the **Manufacturer** Field.



4 Select the reference data source using check boxes in **Data Source** field.

5 Select the type of part matching to be done from the pull down in Match Type

6 Click **Search** to perform the search operation.

7 Review results from the search operation. Part datasheet can be viewed by clicking on the Manufacturer Part Number url.

8 Copy the correct part number back into the BOM/AML Edit All screen

Creating Manufacturer Name Aliases

Best in class manufacturing & procurement processes require standardization of manufacturer names throughout the enterprise. This minimizes errors associated with purchasing wrong parts, redundant inventories, etc. and improves the efficiency of PLM processes.

Since PI supports part search and validation against multiple catalogs / reference sources, manufacturer name aliasing is also very important to ensure that clean manufacturer names are being for matching against each unique source and the 'match rate' for each is maximized.

Manufacturer Name aliasing function automatically maps variants of manufacturer names to standard manufacturer names defined in the organization. Whenever entirely new name variants are encountered, the aliasing function makes suggestions based on 'fuzzy' name matching and allows user to make the final selection in order to define new aliases.

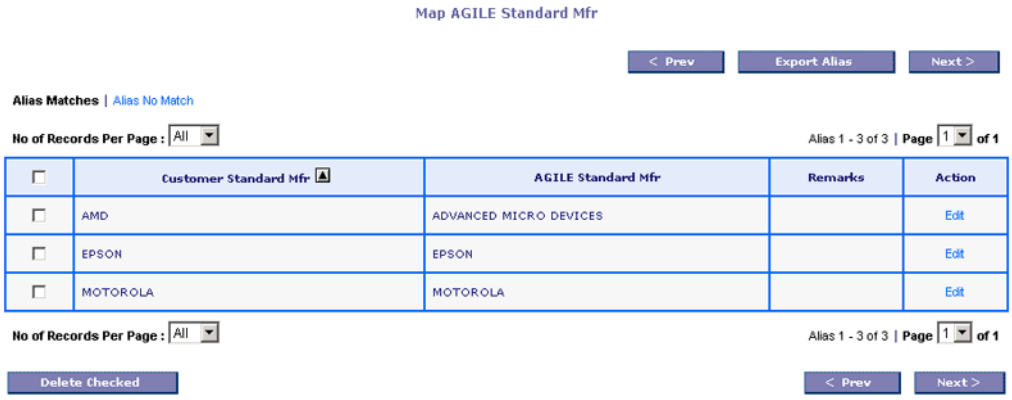
Agile PI supports two levels of manufacturer name aliasing, which are typically executed as two sequential steps during the validation process. These are:

- Level 1 - Map 'input' Project manufacturer names to Company standard names
- Level 2 - Map Company standard names to catalog / reference source standard names

Level 2 aliasing has to be performed for each reference source that will be used for manufacturer part number matching, since each source may have different names for the same manufacturer.

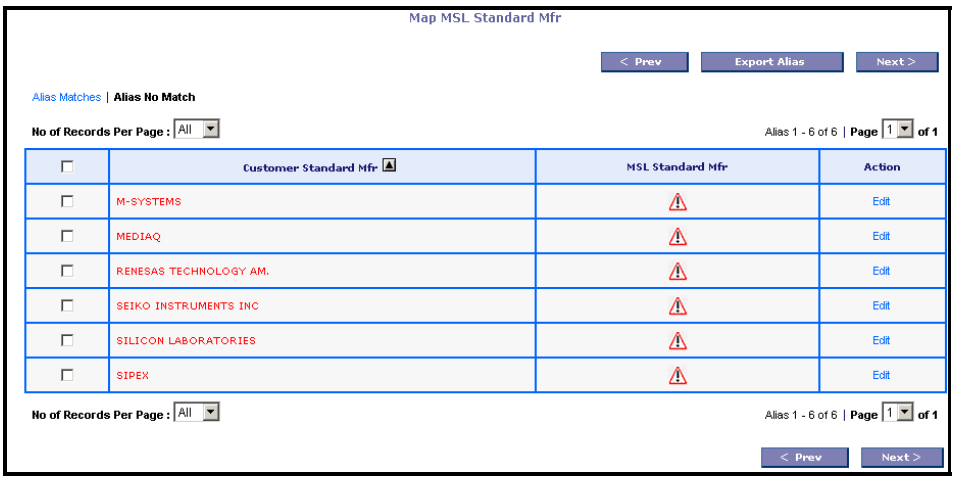
Level 1 - Map Project Manufacturer Names to "Your Company" Standard Manufacturer Names:

On the Manufacturer Alias Results page, manufacturers and their mapped alias names are displayed. The Alias Matches tab displays MRF names for which aliases to company standard names already exist. The Alias No Match tab displays other manufacturers for which an alias could not be found.



To create a Manufacturer Name Alias:

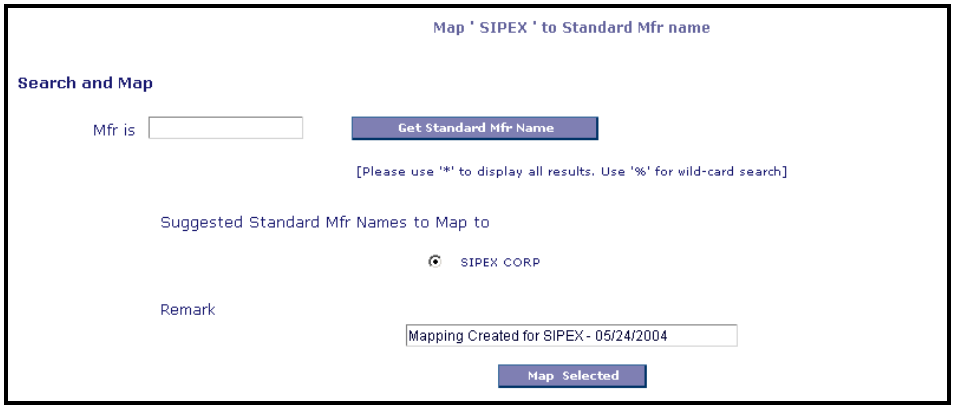
1 Click the **Alias No Match** link (located in the top-left corner of the screen) to display those manufacturers for which no alias has been found. An exclamation mark displays when no alias is found for the manufacturer name.



2 Click the Edit link to identify existing standard manufacturer names or add new standard manufacturer names.

3 The Map to Standard Mfr page appears. Review results to see if any standard manufacturer names were returned. If a standard manufacturer name represents the same manufacturer, Click the radio button to select a standard name and click **Map Selected** to create a new alias.

Note Enter a Remark if desired. Remarks are exported in the Export Alias file.



4 If no standard names were returned, user can search the database using wild cards to identify a suitable standard name by clicking on Get Standard Mfr Name. Once the correct standard manufacturer name has been found, click **Map Selected** to create a new alias.

5 If there is no current standard manufacturer name that represents the same manufacturer, the user can type in the new standard manufacturer name and Click on **Create & Map** to create the new alias.

6 Click **Prev** to return to the Manufacturer Alias Results page.

7 When done, click **Next** to proceed to the next stage.

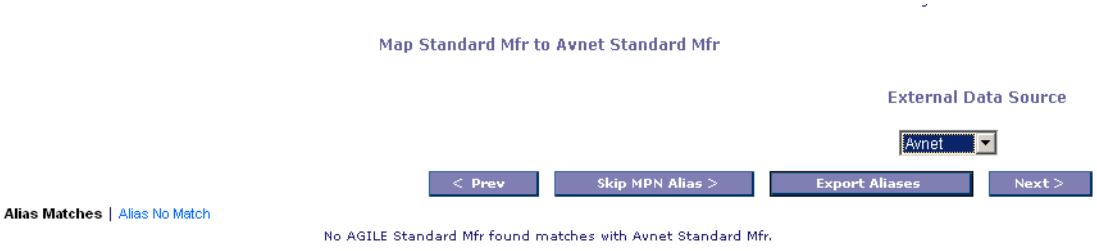
To delete a Manufacturer Name Alias:

1 Select the record you want to delete by checking the checkbox next to the record. To select all records on the page, check the checkbox in the top left-hand box.

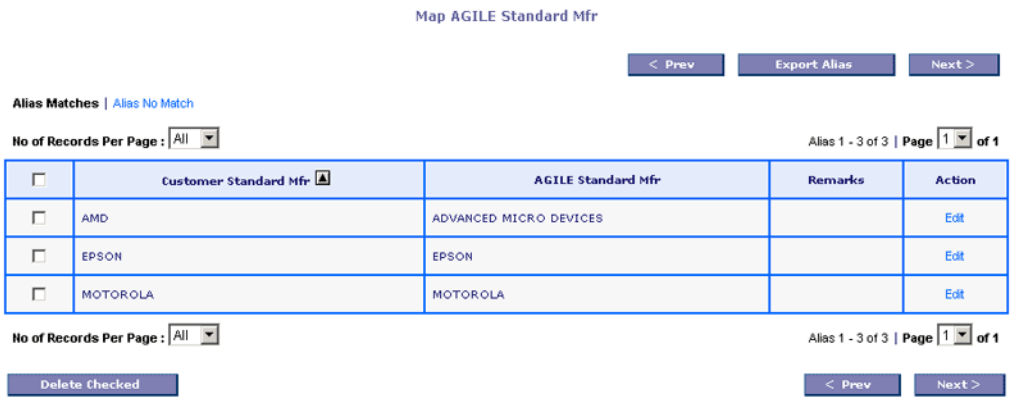
2 Click the **Delete Checked** button, then click **OK** to delete the selected record.

Level 2 - Map "your company" standard names to the Data Source Standard names

Typically, at this stage all input manufacturer names in the validation project have already been aliased to company standard manufacturer names. The next task is to alias any new company standard names to each reference source that is connected into Agile Product Interchange for part matching. As in Level 1, Alias Matches tab displays manufacturer names for which the aliases exist already and Alias No-Match tab displays manufacturer names for which no current aliases could be found in Agile PI database.

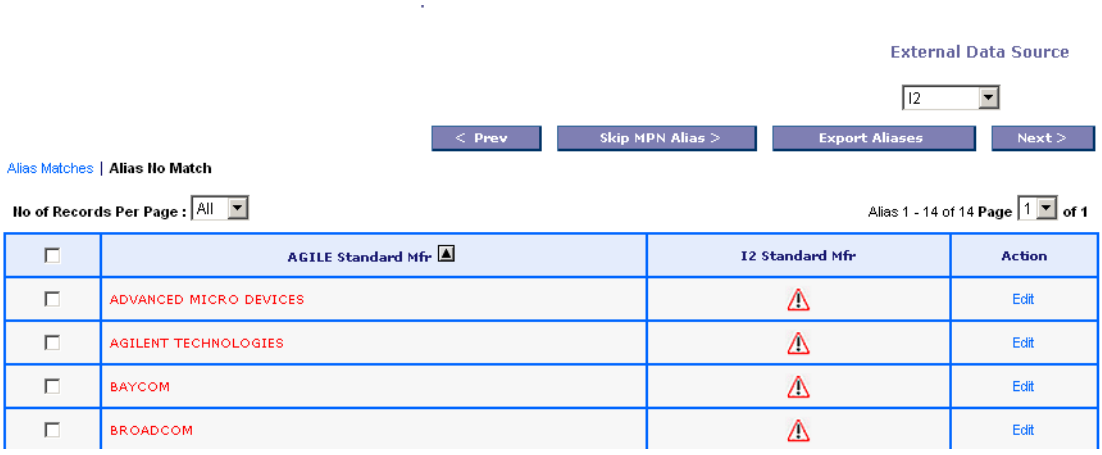


1 Choose a data source from the External Data Source drop down box.



To create a Manufacturer Name Alias:

1 Click **Alias No Match** to display the company names for which no alias has been found. An exclamation mark displays when no alias is found for the company name.



2 Click the Edit link to identify existing standard company names or add new standard company names.

3 The Map to Source Mfr name page appears. Review results to see if any standard company names were returned. If a standard company name represents the same manufacturer, Click the radio button to select a standard name and click **Map Selected** to create a new alias.

4 If no standard names were returned, user can search the database using wild cards to identify a suitable standard name by clicking on Get Standard Mfr Name. Once the correct standard manufacturer name has been found, click **Map Selected** to create a new alias.

5 Repeat this section for each data source.

To delete a Manufacturer Name Alias:

1 Select the record you want to delete by checking the checkbox next to the record. To select all records on the page, check the checkbox in the top left-hand box.

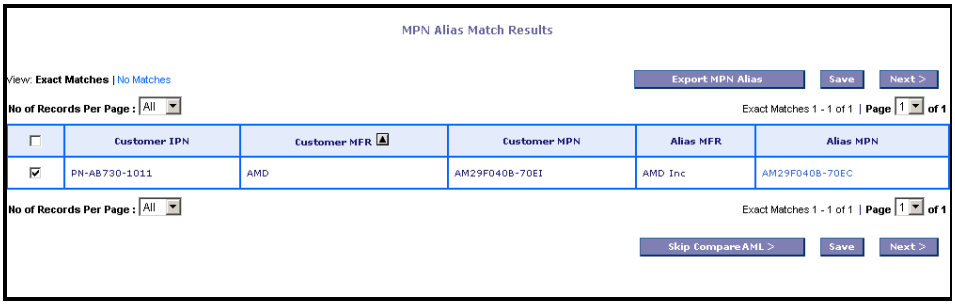
2 Click the **Delete Checked** button, then click **OK** to delete the selected record.

Selecting MPN Aliases

It is a common occurrence in cleansing and validation of part numbers that the same erroneous part number appears in many different projects. Typically the user has no recourse but to clean the part number each time that the user comes across it. Agile PI provides a good solution to this problem by remembering each time a part number is corrected. It does this by creating an MPN Alias between the dirty manufacturer part number and the clean manufacturer part number, at the time when the correction is made. This alias is saved in the PI database for use in future. Next time a dirty manufacturer part number appears in a project, Agile PI automatically retrieves the MPN Alias (if one was created earlier) and gives user the option to replace the dirty part with the clean part number from the MPN Alias.

To select part number aliases:

1 On the Part Number Alias page, the part numbers are displayed along with the corresponding part number aliases that are currently in the database.



2 Click Export MPN Alias to export current part aliases.

3 Using check boxes, select the **part aliases** that you want to include in the project.

4 Manufacturer's datasheets can be viewed by clicking on the manufacturer part number url.

5 Click Save to save these aliases in the file.

6 Click Next to proceed to the next step.

Note MPN Aliases are created during the MPN Search step of the cleansing process. The following specific actions lead to the creation of MPN Aliases:

- **Near Match Search** - During MPN Search when a user conducts a Near Match Search against a reference catalog / reference source, one or more near matches will be returned by the reference source. An MPN Alias is created when user selects one particular match result and saves it as the clean (correct) manufacturer part number to replace the dirty manufacturer part number in the project.
- **User Entry in No Match category** - During MPN Search the manufacturer part numbers that do not match against anything in a reference source are presented in the No Match results category. If a user types in a clean (correct) manufacturer part number and saves it, then an MPN Alias is created and saved in the MPN Alias database.
- **MPN Only Search** - During MPN Search when a user conducts a MPN Only Search against a reference catalog / reference source, one or more MPN Only matches will be returned by the reference source. An MPN Alias is created when user selects one particular match result and saves it as the clean (correct) manufacturer part number to replace the dirty manufacturer part number in the project.

Other MPN Search operations like Exact Match, Alternate Match do not create MPN Aliases, since the user is not replacing one dirty part number with one clean part number in these operations.

Validating Manufacturer Parts

Like the manufacturer names in the input file, the manufacturer part numbers also need to be validated. In this step, all the manufacturer part numbers in the input file are validated, in bulk against a reference source like a parts catalog.

This ensures that all MPNs in the input file are accurate and complete and also identifies any parts that may have become obsolete or are not recommended for use for any other reason.

The bulk matching of MPNs is done using a part matching template/recipe. A recipe is a set of matching rules used against a data source. Data sources are the master repository of item and manufacturer data against which the validation needs to be done. When validating parts, you can either choose from an existing recipe or create a new recipe.

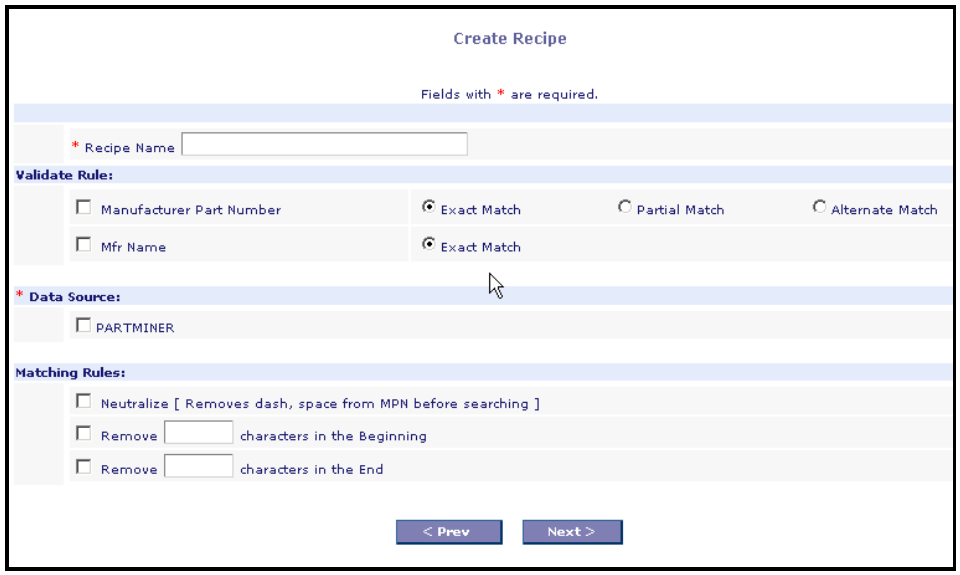
Every recipe contains the following configurable elements:

- Match Index: Select the index for part matching:
  - Manufacturer Part Number only
  - Manufacturer Name only
  - Both Manufacturer Name and Manufacturer Part Number
- Data Source: Select reference source to be used for part matching
- Near Match Rules: Select rules to define how 'near matches' are done
  - Neutralize Part Numbers - Remove all special characters before finding a part match in the selected data source.
  - Removal leading/trailing characters - Remove a specified number of characters from the beginning or the end of the part number before finding a part match in the selected source.

To validate parts using a new recipe:

1 On the Part Matching Page, Click **Create Recipe**.

The Create Recipe page appears.



2 Type the name of the new recipe. It is recommended to name the recipe in a way that describes the rules

3 Select the checkboxes of the items you want to validate.

4 Choose an exact match, partial match, or alternate match of the items.

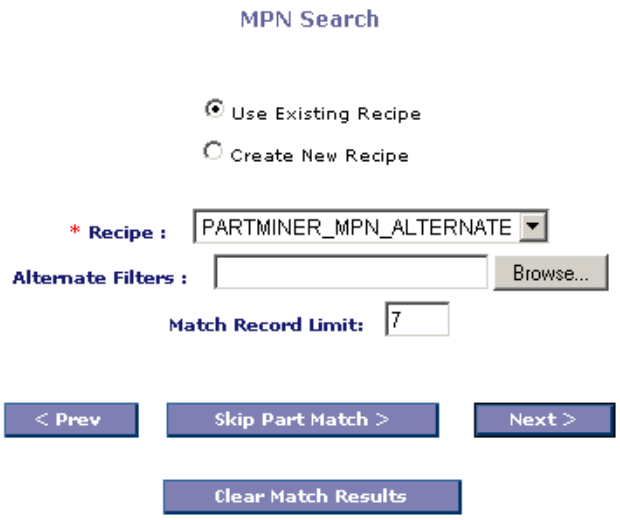
5 Select the checkboxes of the data sources you want to use.

6 Select the checkboxes of the matching rules to use during matching.

7 Click **Next** to begin matching with the newly created recipe.

To validate parts using an existing recipe:

1 On the Part Matching page, select **Use Existing Recipe**.



2 Select the **recipe** from the drop-down list.

3 Click **Next** to start the part matching and display the match results page:

On the match results page, you can view five groups of data:

- Selected Parts: Parts that have been reviewed and 'certified' as good parts by the user. As parts cleansing progresses all parts should ideally move in to this category from other buckets.
- Exact Matches: Parts that exactly matched the specified data source.
- Near Matches: Parts where an exact match was not found, but one or more near matches were found.
- Alternate Matches: Parts where alternate matches were found. An alternate match is a form-fit-function part equivalent to the original part where similar attributes are compared. The results of the match are listed as possible alternates to the original part.
- No Matches: Parts where no match was found.

Using Alternate Filters

Alternate Filters allow a user to provide a list of manufacturer names that can be used to filter the alternate match results from the content source. This allows the user to narrow the results to the preferred manufacturers.

Currently the manufacturer name filtering does not apply to other MPN Search operations like Exact Match and Partial Match. To provide a list of manufacturers simply include them in an excel file (single column) and submit the file on the MPN Search screen, before running the Alternate Match query.

To process Exact Match results:

Part matching results appear in this category only when 'Exact Match' was selected as a criterion in the part-matching recipe.

4 Click the **Exact Matches** link to view parts that are exact matches.

5 Click the **MPN** url to view manufacturer's datasheets.

6 Use radio buttons to select part-matching results that are acceptable.

7 Click **Save** to save these selections and move these parts to the 'Selected Parts' screen.

8 Click **Change Recipe** to run a new part-matching recipe.

9 Click **Export PDX** to export the file being processed in PDX format.

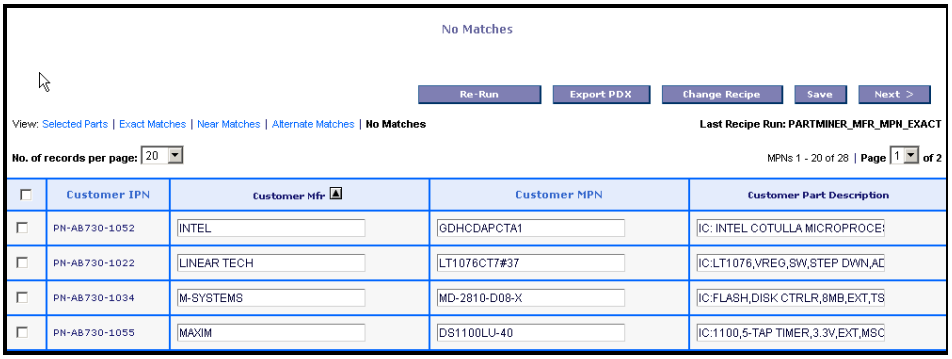
10 Click **Export MPN Mapping** to create an MS-Excel report with MPN mapping.

11 Click **Next** to proceed to the next step.

To process Near Match results:

Part matching results appear in this category only when 'Near Match' was selected as a criterion in the part-matching recipe.

1 Click the **Near Matches** link to view parts that are near matches.



2 Use the radio buttons to select one of the near match results as the 'correct' replacement for the 'dirty' part number in the input file.

Note This action also creates a part number alias (dirty à clean) which is persisted in the part alias knowledgebase for all future matches where this (dirty) part number shows up in the input files.

3 Click **Save** to save the selections made on the screen.

Note This action also removes the selected near match results from the Near Match screen and lists them under 'Selected Parts' screen as parts that have been 'cleaned'.

4 Click **Re-Run** to run the same part-matching recipe again.

5 Click **Change Recipe** to run a new part-matching recipe.

6 Click **Export PDX** to export the file being processed in PDX format.

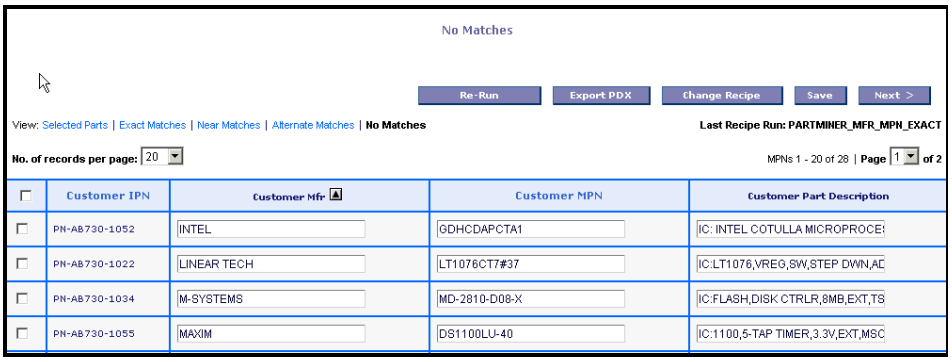
7 Click **Move to No-Match** to remove those parts for which no match results can be found (e.g. custom parts) in the reference source.

8 Click **Next** to proceed to the next step.

To process No Match results:

Part matching results appear in this category every time there are parts in the input file, which could not be matched according to the criteria listed in the part-matching recipe.

1 Click the **No Matches** link to view parts with no matches.



2 Type in the Manufacturer, MPN and Part Description to describe the 'correct' replacement for the 'dirty' part number in the input file.

Note This action also creates a part number alias (dirty à clean) which is persisted in the part alias knowledgebase for all future matches where this (dirty) part number shows up in the input files.

3 Click **Save** to save the selections made on the screen.

Note This action also removes the selected results from the No Match screen and lists them under 'Selected Parts' screen as parts that have been 'cleaned'.

4 Click **Re-Run** to run the same part-matching recipe again.

5 Click **Change Recipe** to run a new part-matching recipe.

6 Click **Export PDX** to export the file being processed in PDX format

7 Click **Next** to proceed to the next step.

Finding Alternate Parts

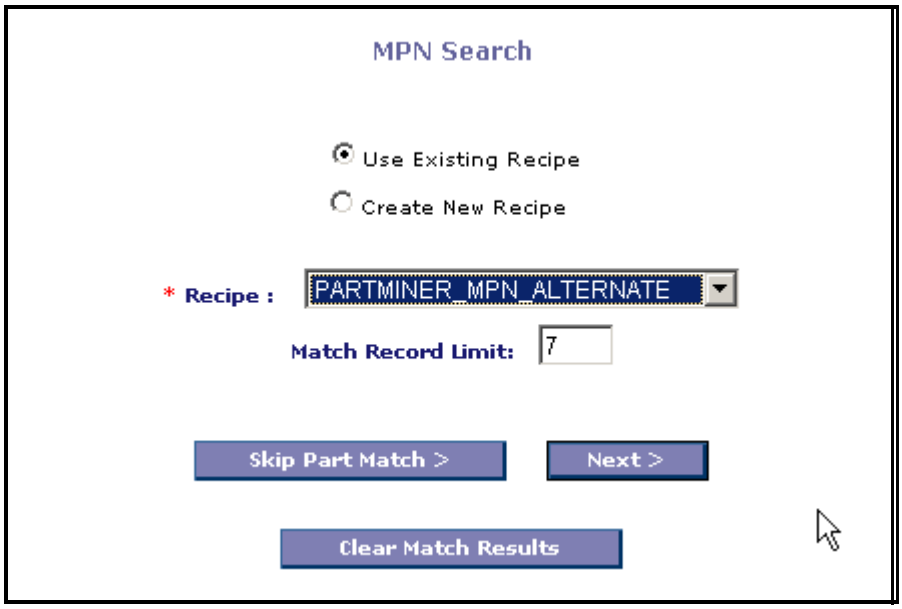
The user can search for alternate parts where necessary to replace parts with issues (i.e., fit-form-function or non-compliance) or to add new sources of equivalent parts.

To find alternate parts:

Part matching results appear in this category only when 'Alternate Match' was selected as a criterion in the part-matching recipe.

1 On the Part Matching page, select **Use Existing Recipe**.

2 Select the **alternate match recipe** from the drop-down list.



3 Click **Next** to start the part matching and display the match results page.

4 Click the **Alternate Matches** link to view parts with alternate matches.

5 Click the View **Alternates** link to view alternate part results for each part.

6 Use checkboxes to select one or more parts which can serve as acceptable alternate parts.

7 Click **Save** to save the selections made on the screen.

Note This action also creates a part number alias (original à alternate) which is persisted in the part alias knowledgebase for all future matches where this (original) part number shows up in the input files.

Note This action also removes the selected results from the Alternate Match screen and lists them under 'Selected Parts' screen as parts that have been 'cleaned'.

8 Click **Re-Run** to run the same part-matching recipe again.

9 Click **Change Recipe** to run a new part-matching recipe.

10 Click **Export PDX** to export the file being processed in PDX format

11 Click **Alternates List Report** to create a report of alternates in MS-Excel format.

12 Click **BOM w Alternates Report** to export the file being processed with the alternate parts included in MS-Excel format.

13 Click **Next** to proceed to the next step.

Note MPN Search is often a very iterative operation requiring the user to try several different searches to cleanse part numbers and find alternate parts. During these operations it is possible that new manufacturers, which have no corresponding company standard names, may be brought into the project. The Next step after MPN Search provides a means to create company standard manufacturer names for these new manufacturers.

Assigning Commodity Codes

Once all the parts information has been cleaned and validated, the user is able to assign Commodity Codes to individual manufacturer parts or part groups.

To Assign Commodity Codes:

The user is brought to the 'Assign Commodity Codes' page after the completion of prior steps

1. On the Assign Commodity Codes page, the parts are categorized based on whether they have or do not have Commodity Codes already assigned.
2. Click the **MPNs without Commodity Codes** link to view parts that do not have commodity codes currently assigned.
3. For each part, select the **appropriate Commodity Code** from the pull down list. The Commodity Group gets assigned automatically (Optional)
4. Click **Save** to save all the Commodity Code assignments.
5. Commodity Codes can also be assigned to multiple parts at once. To do this, select all the similar parts using the checkboxes or use **Select Function** to select parts based on a matching pattern.
6. Using the **Select Code** pull down list, select the desired Commodity Code for the list of parts.
7. Click **Change** to perform the assignment.
8. Click **Save** to save all the Commodity Code assignments.
9. Click **Next** to initiate the export of a cleansed project to Agile PLM or export as a PDX file. This automatically triggers a BOM/AML validation to verify if the cleansed file is suitable for export.

Exporting Validation Projects

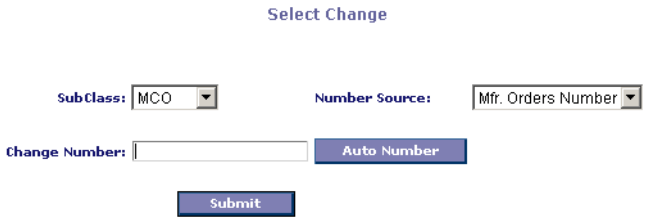
Use Export to export the BOM/AML to a PDX file or to Agile PLM.

To Export the BOM/AML to a PDX file:

1. From the Perform Bulk Edits page, click the Export Button. The process may take a few moments.
2. The SmartRule validation is kicked off automatically and the errors / warnings are presented to the user through the BOM/AML Edit All screen.
3. If no validation errors are found, go to Step 10. If validation errors are found, continue on to Step 4.
4. Every cell that has an error is highlighted either with Red or Yellow color. The 'Red' cells have errors that must be corrected before export can proceed further. The 'Yellow' cells may be addressed optionally.
5. Error and Warning Counts are displayed in the top right-hand corner of the screen.
6. To correct the error condition in a particular cell, place the cursor in that cell. The entire text in that field is displayed in the top left-hand corner of the screen. The specific error condition is displayed in the bottom left-hand corner.
7. Error correction can be done by directly typing in the correct value in the appropriate cell. The cell color changes to green to mark it as a 'corrected' cell.
8. Do as many corrections as necessary and click **Save** to save these corrections.
9. Click **Re-Run** to run the validation again and ensure that all the errors have been corrected.
10. Click the **Export PDX** Button to begin exporting the BOM/AML to a PDX file.
11. Click **Save** to Save the file to a specified location or click **Open** to open the file for viewing.

To Export the BOM/AML to Agile 9:

1. From the Perform Bulk Edits page, click the **Export** button. The process may take a few moments.
2. Click the **Agile Export** button to go to the Select Change page. Choose the Subclass and Number Source from their respective dropdown lists.



3. Enter the Change Number or click **Auto Number** to automatically assign a number to this field. Click **Submit** to export the BOM/AML into Agile 9. You will see an Agile Export Results Screen that will tell you the Change Number and Import Log.
4. Click **Next**, then enter the relevant notes in the Validation Notes and Additional Notes text boxes.
5. Click **Done** to see a summary of the export, then click **Dashboard** to return to the Agile Product Interchange Dashboard. The Project status on the Dashboard will change to **Review Cleansed BOM.**

   Note If you click **Dashboard**, you will return to the Dashboard with a Validation State—Not a Review Cleansed BOM state.

6. From the Dashboard, click the **Review Cleansed BOM** link to view the following reports that are generated upon completion of the validation:

- **BOM File** - This is the original file inputted into the validation file.
- **Mfr Report** - This is a Microsoft Excel Report that lists the manufacturer contained in that project.
- **Standard BOM/AML Report** - This reports presents the cleansed file in a standard Microsoft Excel format.
- **PDX file** - This is the PDX version of the cleansed file.
- **Validation Notes** - Any validation notes you made are listed in a summary fashion.

CHAPTER 2
PG&C Integration

This Appendix contains attribute information from the following providers:

- *PG&C Integration*

PG&C Integration

Starting with the release of Agile PLM 9.2, Product Interchange (PI) supports integration with Product Governance & Compliance (PG&C) solution to manage hazardous material information.

PI provides the following capabilities:

- Retrieval of compliance attributes, including full Bill of Substance information from external content sources and persisting the compliance information in the PI schema.
- Creation of Homogeneous Material Declaration in PG&C solution by exporting compliance information from PI.
  - Unique declaration created for each external data source.
  - Single declaration created for all parts in a validation project.
  - Substances created in PG&C if they are not existing currently.
  - Multi Level Bill Of Substance tree structure supported.
  - Configurable mapping of compliance attributes from external data source to composition attributes in PG&C.

Retrieving Compliance Information & Exporting to PG&C

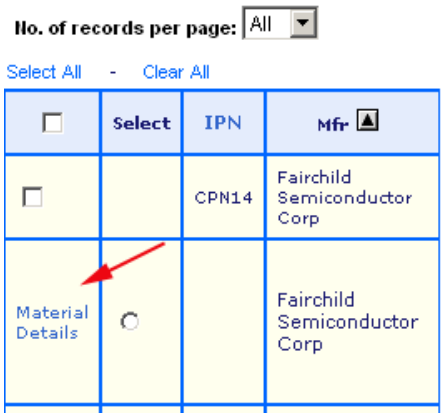
PI retrieves compliance information by following exactly the same steps outlined earlier to retrieve general attributes from external content sources. A summary of these steps is provided below (for more details, please refer to prior sections).

1. Create a Validation Project.

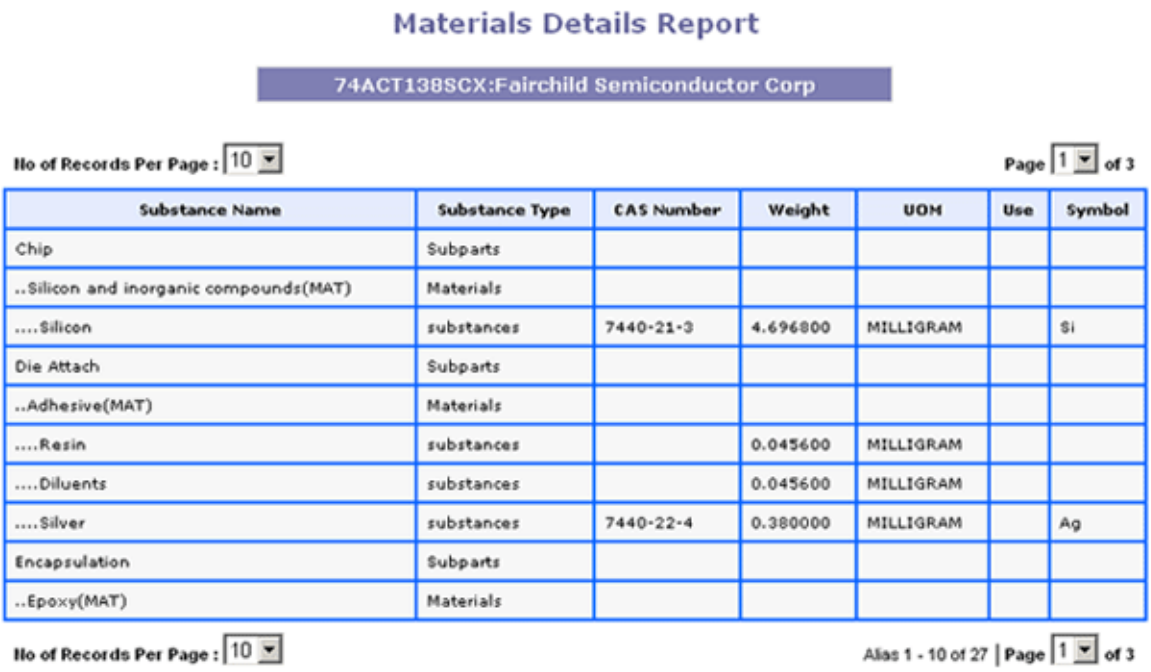
   Optional: Perform regular cleansing & validation steps (MFR Aliasing, MPN Aliasing, etc.).
2. Select MPN Search function.
3. Run MPN_MFR_Exact_Match query for the relevant content source.

   Optional Run other exact or partial match queries to broaden the search or alternate match queries to identify form, fit, function alternate parts.

4 On the MPN search results page, part numbers with detailed materials information will have Material Details link in the first column.



5 Click on Material Details link to see detailed material information retrieved from the content source.



6 Export the project to Agile PLM (PG&C).

7 The Declaration No. (i.e. MD03245-hmd) generated on the fly will appear on the Agile Export Results page along with the change No.

The import of Material Declaration into PG&C happens sequentially after the import of a BOM/AML into Agile PLM. Thus if new items, or Manufacturer Part Numbers need to be created, then this action takes place before the import of Material Declaration is initiated.

Note If the "Redlining" mode has been selected for PLM import, then a Change Order will be created in addition to the Material Declaration.

Note If the "Authoring" mode has been selected for PLM import, then items will be created/updated directly without a Change Order. Following this a Material Declaration will be created. This is the preferred mode for importing larger projects with high part counts.

APPENDIX A
Content Provider Attribute Tables

This Appendix contains attribute information from the following providers:

- *Partminer General (Non-Compliance) Attributes*
- *Partminer Compliance Attributes*
- *Arrow Electronics General Attributes*
- *Avent General Attributes (Partial List)*
- *i2 Technologies General Attributes (Partial List)*

Partminer General (Non-Compliance) Attributes

Note All attribute information provided here is for guidance only. For actual availability of these and other attributes as well as the exact definition / function of the attributes, Please contact Partminer.

General (Non-Compliance) Attributes from Partminer	Attribute Description	Allowed Values
Manufacturer Name	Manufacturer Name	<mfr>
Manufacturer Part Number	Manufacturer Part Number	<mpn>
Manufcaturer Part Description	Manufacturer Part Description	<description>
Part Status	Current Part Usage Status	Prelim, Active, Historical, Contact MFR, EOL, Discontinued
Last Time Buy Date	Last Time Buy Date (for discontinued parts)	<date>
Last Time Ship Date	Last Time Ship Date (for discontinued parts)	<date>
Lifecycle Stage	Current Part Lifecycle Stage	Introduction, Growth, Maturity, Saturation, Decline, Maturity
Lifecycle Risk	Current Part Lifecycle Risk	Rating on a scale of 1 - 6 (Low Risk to High Risk)
Earliest Obsolescence Date	Earliest Predicted Obsolescence Date	<date>
Latest Obsolescence Date	Latest Predicted Obsolescence Date	<date>
Pin Count	Pin Count	<count>
Package Equivalence Code	Package Code	<package>
Package Material	Package Material	<material>

Commodity Code	Commdity Code (Assigned by content source)	<commodity code>
Datasheet	Manufacturer Datasheet	<datasheet url>
Cross References	Form / Fit / Function Cross References	<cross reference parts>
EOL Notices	Manufacturer Issued EOL Notice	<url to EOL Notice>
PCN Notices	Manufacturer Issued PCN Notice	<url to PCN Notice>

Partminer Compliance Attributes

Note All attribute information provided here is for guidance only. For actual availability of these and other attributes as well as the exact definition / function of the attributes, Please contact Partminer.

Compliance Attributes from Partminer	Attribute Description
Lead Free Status	"YES" is returned if the part is lead-free, or the part contains <= 0.1% lead. "NO" is returned if the part contains lead. If the tag is not returned, it indicates that the lead content is unknown.
Lead Free Code	Code used by the manufacturer to differentiate lead-free parts. This code may be included in the part number suffix. Used in the ordering process or used as a marking code on the device itself.
Component Mark	Description of the identifier(s) on the component used by the manufacturer to indicate that the component is lead-free and/or green (may be called "RoHS compliant").
Shipping Mark	Description of the identifier(s) on the shipping materials (label, reel, box, etc.), used by the manufacturer to indicate that the component is lead-free and/or green (may be called "RoHS compliant").
RoHS Compliance	"YES" is returned if the part is RoHS compliant. "NO" is returned if the part is not RoHS compatable. If the tag is not returned, it indicates that the RoHS status is unknown.
RoHS Code	Code used by the manufacturer to differentiate RoHS compliant parts. This code may be included in the part number suffix; Used in the ordering process or used as a marking code on the device itself.
Green Code	This is the date code for parts with RoHS Compliance …1005 notcompliant 1105 compliant.
Manufacturer Package ID	Manufacturer's name or description of the package for the part.
DataCaptureDate	The date when the material data for the part was collected by PartMiner.
Effective Date	DataCaptureDate
Moisture Sensitivity Level	Moisture Sensitivity Level value
Peak Reflow Temperature	The maximum temperature in degrees C that the part is qualified to withstand during the soldering process.
MatDataSheet	Image server filename of Material Datasheet document.
CertificationDoc	Image server filename of Material Content Certification document.
RoadmapDoc	Image server filename of Manufacturer's Lead-free/ RoHS Compliant Roadmap document.
Total Weight	Total weight of the part in milligrams.
Material	A material is made up of one or more substances (i.e. copper alloy is a material, which in turn is made up of a number of defined substances, copper, nickel, silver, etc.).
Substance	Substances are chemical elements and their compounds.
Substance Weight	Weight of the substance in milligrams.
Substance Symbol	The symbol or symbols from the periodic table of the elements which describe the substance. Symbols are only used if given by the manufacturer.

Substance CAS Number	CAS registry number of the substance. CAS numbers are only used if given by the manufacturer.
Substance Location	Location of the substance in the part.
Substance Use	The use of the substance at the location where the substance is used

Arrow Electronics General Attributes

Note All attribute information provided here is for guidance only. For actual availability of these and other attributes as well as the exact definition / function of the attributes, Please contact Arrow Electronics.

General Attributes from Arrow Electronics (Partial List)	Attribute Description
Manufacturer Name	Manufacturer Name
Manufacturer Part Number	Manufacturer Part Number
Manufcaturer Part Description	Manufacturer Part Description
Part Status	Current Part Usage Status
Last Time Buy Date	Last Time Buy Date (for discontinued parts)
Last Time Ship Date	Last Time Ship Date (for discontinued parts)
Lead Free Status	Lead Free Status
ROHS Compliance Status	ROHS Compliance Status
Datasheet	Manufacturer Datasheet (url)
Cross References	Form / Fit / Function Cross References
Multi Source Profile	Indicator for number of sources for the part
Breadth of Usage	Industry Usage Indicator
EOL Notices	Manufacturer Issued EOL Notice (url)
PCN Notices	Manufacturer Issued PCN Notice (url)

Avent General Attributes (Partial List)

Note All attribute information provided here is for guidance only. For actual availability of these and other attributes as well as the exact definition / function of the attributes, Please contact Avnet.

General Attributes from Avnet (Partial List)	Attribute Description
Manufacturer Name	Manufacturer Name
Manufacturer Part Number	Manufacturer Part Number
Manufcaturer Part Description	Manufacturer Part Description
Part Status	Current Part Usage Status
Last Time Buy Date	Last Time Buy Date (for discontinued parts)
Last Time Ship Date	Last Time Ship Date (for discontinued parts)
Quantity Available	Available Quality
Price	Market Price
Lead Time	Lead Time

i2 Technologies General Attributes (Partial List)

Note All attribute information provided here is for guidance only. For actual availability of these and other attributes as well as the exact definition / function of the attributes, Please contact I2 Technologies.

General Attributes from i2 Technologies (Partial List)	Attribute Description
Manufacturer Name	Manufacturer Name
Manufacturer Part Number	Manufacturer Part Number
Manufcaturer Part Description	Manufacturer Part Description
Part Status	Current Part Usage Status
Last Time Buy Date	Last Time Buy Date (for discontinued parts)
Last Time Ship Date	Last Time Ship Date (for discontinued parts)
Lifecycle Stage	Current Part Lifecycle Stage
Lifecycle Risk	Current Part Lifecycle Risk
Predicted Obsolescence	Predicted Obsolescence Date
Lead Free Status	Lead Free Status
ROHS Compliance Status	ROHS Compliance Status
Datasheet	Manufacturer Datasheet <url>
Cross References	Form / Fit / Function Cross References
EOL Notices	Manufacturer Issued EOL Notice
PCN Notices	Manufacturer Issued PCN Notice
Terminal Finish	Terminal Finish
JEDEC Marking	JEDEC Marking
Reflow Temperature	Reflow Temperature
Moisture Sensitivity Level (Min)	Moisture Sensitivity Level (Min)
Moisture Sensitivity Level (Max)	Moisture Sensitivity Level (Max)
Material Compound (ppm)	Material Compound (ppm)
Material Compound (mg)	Material Compound (mg)
EOL Notices	Manufacturer EOL Notices <url>
PCN Notices	Manufacturer PCN Notices <url>