



Agile PLM Business Intelligence

MDS Configurator Data Mapping Guide

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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) <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) <http://www.adobe.com>.

The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technology/documentation/agile.html) <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> (<http://www.oracle.com/agile/support.html>) for assistance.

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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) <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) 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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Introduction

This chapter includes the following:

▪ MDS Configurator Overview	1
▪ Acronyms Used in This Document	2
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▪ Data Mapping Process	4

In order to support enterprise reporting and analysis needs, accurate operational data encompassing millions of product records must be made available for use within analytics applications. This data must be organized and formatted in meaningful ways to support different query modes and ensure that business analysts derive the right information for decision making. Typically, Extract-Transform-Load (ETL) processes are used to reorganize source data before loading it into the target system. Field-level mappings can be done manually with the help of a configurator tool to resolve differences in field names.

The MDS Configurator tool described in this document allows you to map fields from the Agile PLM application to fields in the data layer of the PLM Business Intelligence application.

Note When users open an object in Agile PLM Web Client or Java Client, they see a tabbed window with fields. These fields are called 'attributes' in Agile PLM. Detailed information on Agile PLM attributes is covered in the *Agile Administrator Guide*.

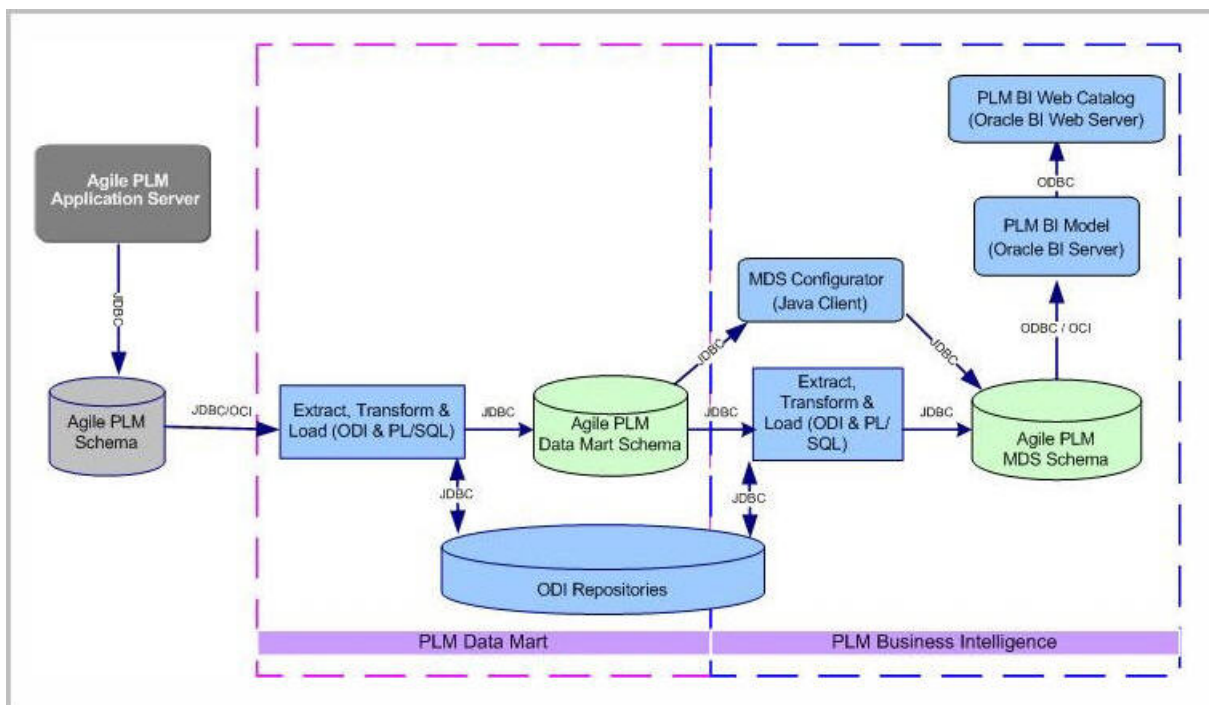
This document is intended for data warehouse administrators who are familiar with Agile PLM or Agile PLM administrators who have database warehousing skills.

MDS Configurator Overview

The PLM Business Intelligence (BI) application queries data for reports and dashboards from the Multi-Dimensional Schema (MDS) database. The MDS database schema contains a set of tables and columns to support PLM business reporting and analytics requirements. The data for this MDS schema is sourced from Agile PLM.

Each customer defines fields in Agile PLM according to their business process requirements. The PLM BI application can retrieve accurate field data for analysis only if the data in the MDS fields and Agile PLM fields are synchronized. The MDS Configurator is an easy-to-use graphical interface that simplifies the process of mapping fields from Agile PLM to the tables and columns in the MDS database schema. These saved field-level mappings are used by the ETL process to load data into the target MDS database schema.

The following diagram illustrates the component architecture and interactions between various components in the PLM Business Intelligence application:



Acronyms Used in This Document

A list of acronyms used in this document is provided here for your reference.

Acronym	Expansion
BI	Business Intelligence
DM	Data Mart
ODM	Oracle Data Mart
ETL	Extract-Transform-Load
MDS	Multi-Dimensional Schema
OBIEE	Oracle Business Intelligence Enterprise Edition
ODI	Oracle Data Integrator
PLM	Product Lifecycle Management
PLM DM	Product Lifecycle Management Data Mart
PQM	Product Quality Management
SCM	Supply Chain Management

Acronym	Expansion
CRM	Customer Relationship Management
ECO	Engineering Change Order
MCO	Manufacturing Change Order
ECR	Engineering Change Request
SS	Stop Ship
PR	Problem Report
NCR	Non-Conformance Report
CAPA	Corrective and Preventive Action

Accessing the Software

The MDS Configurator is a standalone executable that is provided along with the installation software for Agile PLM BI. When you install Agile PLM BI, the executable is automatically downloaded to the *bin* folder within the PLM BI installation directory on your computer. All dependent files are downloaded to the *lib* folder. Configuration files are in *config* folder and the configuration logs are stored in *log* folder.

For information on running the MDS Configurator, see [Running the MDS Configurator](#) on page 15.

Connection Information

The MDS Configurator uses database authentication to connect to the Data Mart and MDS databases. There are no additional database privileges required.

Connection information is maintained in the property file *<install dir>\config\BIDataLayerConfig.properties*. The password used for the connection is encrypted as per the prescribed Oracle Agile algorithm.

To change the password:

1. Run the *BIEncoder.bat* file available at the path *<install directory>\bin* and enter the password string for ODM / PLM BI MDS database users.
2. Copy the generated strings for ODM_PASSWORD and BI_PASSWORD respectively.
3. Open the *<install directory>\config\BIDataLayerConfig.properties* file where the password is initialized for the Data Mart database schema user and MDS database schema user.
4. Replace the copied strings as values for ODM_PASSWORD and BI_PASSWORD respectively.
5. Save changes and close the file.

Prerequisites

Before you run the MDS Configurator, you must ensure that the following prerequisites are met:

- Agile PLM BI is installed.
- JRE 1.5 is installed.
- DM and MDS Instances are running.

Related Documentation

Agile PLM BI product installation documentation and database schema documentation that you may need as reference during the data mapping process are available on [Oracle Technology Network](http://www.oracle.com/technology/documentation/agile.html) <http://www.oracle.com/technology/documentation/agile.html>.

- *Agile PLM BI Setup Guide* - Describes the installation and deployment of BI product components.
- *Agile PLM BI Data Reference Manual* - Describes the entities of the published model of the MDS schema.

Data Mapping Process

The configuration capabilities of the MDS Configurator include the mapping of Cover Page, Page Two, Page Three, and Flex attributes of supported Agile PLM classes, as follows:

- MDS fact fields to PLM source fields.
- MDS dimension fields to PLM source lists that are assigned to PLM fields.

Data accessed by the tool is located in the MDS and ODM database tables.

Important Any changes to the BI Data Dictionary definitions in Agile PLM Datamart or MDS will impact the tool. Please refer to the latest published model as documented in the relevant *Data Reference Manual* available on [Oracle Technology Network](http://www.oracle.com/technology/documentation/agile.html) <http://www.oracle.com/technology/documentation/agile.html>.

The BI reports derive data from fixed target columns within the database tables. Using the MDS Configurator, the data elements in these target columns are mapped to the source columns from which data needs to be derived.

In order for the changes made in the MDS Configurator to take effect, actions must occur in the correct sequence:

1. Before you begin mapping, the PLM Data Mart ETL should have been run.
 2. After you finish mapping, the MDS ETL should be run.
-

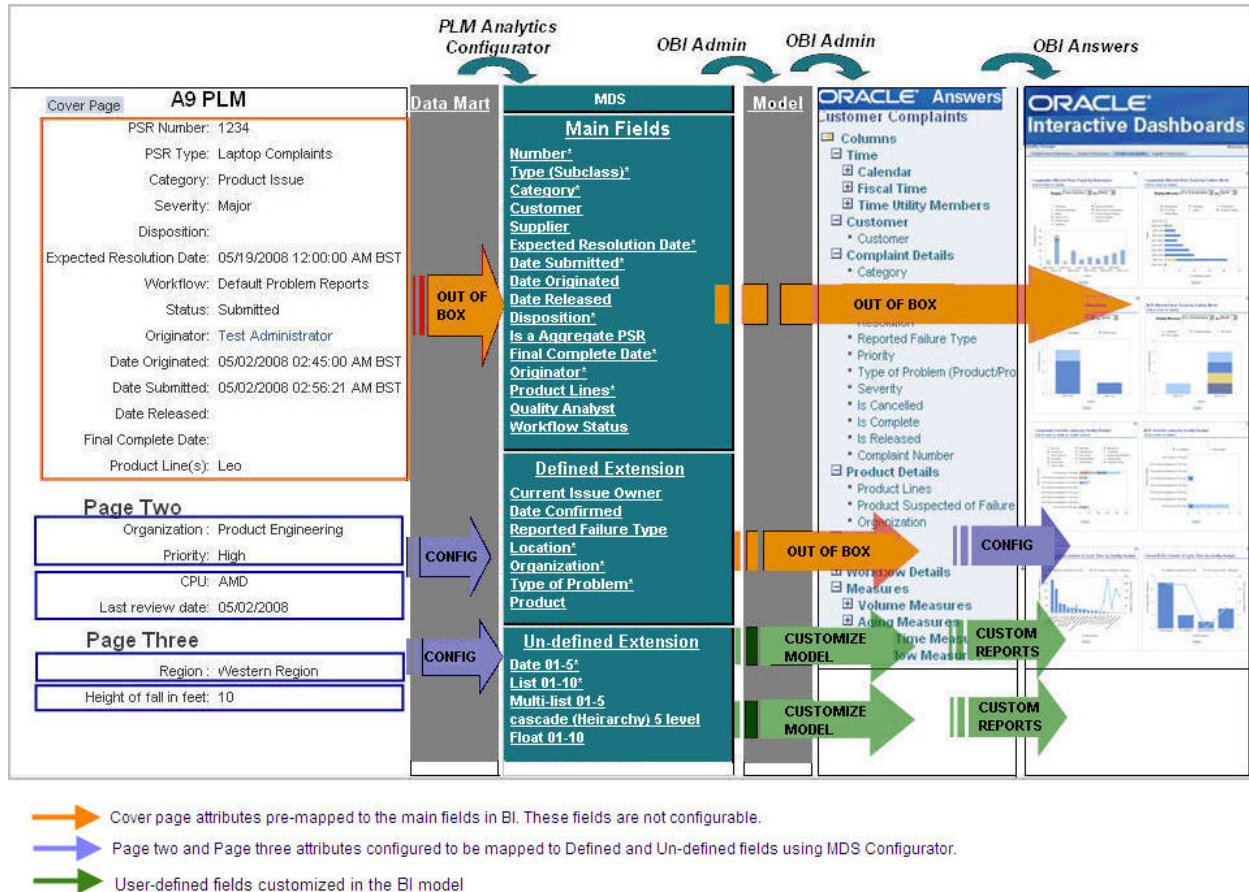
Note The MDS Configurator is purely a mapping tool. Data is retrieved and updated through the ETL processes. By default, the MDS ETL is set to load incremental changes. If there are any configuration changes, MDS ETL is automatically set to Full Load.

What's Configurable?

The MDS has 3 types of fields:

- **Main fields (Not configurable)** - These fields correspond to an object's Cover Page attributes in Agile PLM. Some Cover Page attributes such as text and multi-text fields are not relevant for analysis and are therefore excluded from the MDS. Since these fields have pre-defined meaning they are embedded in the OBIEE model and used to compute relevant pre-defined metrics. These are exposed in the presentation layer of the model as measures and dimensions. Reports created using these measures and dimensions are embedded in the out-of-the-box role and functional dashboards.
- **Defined extensions (Configurable)** - Defined extension fields in each fact or subject area capture important information about the subject area. They have pre-defined semantics and can be configured to Cover Page, Page Two, Page Three and flex attributes in Agile PLM. Out of the box, they are not mapped to any Agile PLM attribute. These defined fields are mapped as dimensions and measures in the OBIEE model.
- **User-defined extensions (Configurable)** - User-Defined extension fields in each fact or subject area capture important information about the subject area. They have pre-defined semantics and can be configured to Cover Page, Page Two, Page Three and flex attributes in Agile PLM. Out of the box, they are not mapped to any Agile PLM attribute. These defined fields are mapped as dimensions and measures in the OBIEE model but not used in any reports or dashboards out of the box. If you want to use these fields you need to customize the model. Contact your BI administrator for further information.

The following figure illustrates how each type of MDS field is mapped from one layer to the next, and shows what fields are configurable or custom. Additional configuration and customization can be performed using OBIEE Admin features.



Supported Mappings

The following table shows the data sources for the listed target MDS tables. The first column shows the target MDS tables from which BI reports and dashboards take information. The second column shows the attribute groups from which data is sourced.

Target Fact Table	Supported Source Attribute Groups
Core Fact table (PR, NCR, CAPA, Audit, Change Orders, Change Requests, Manufacturing Change Orders, Stop Ship)	<p>The following attributes corresponding to the respective Agile PLM Class (PR, NCR, CAPA, Audit, Change Orders, Change Requests, Manufacturing Change Orders, Stop Ship):</p> <ul style="list-style-type: none"> Cover Page, Page Two attributes, Page Three attributes of sub-classes Flex attributes

Target Fact Table	Supported Source Attribute Groups
Affected Item Fact Table (PR, NCR, CAPA, Audit, ECO, ECR, MCO, and SS)	All Attributes configured on the Affected Item tab. Excludes Item read-through attributes.
Core Fact Table (Mfr Part, Mfr)	<ul style="list-style-type: none"> ▫ Cover Page attributes, Page Two attributes, Page Three attributes of sub-classes ▫ Flex attributes
Core Fact Table (Item Mfr Part, Item Product Performance)	<ul style="list-style-type: none"> ▫ Item AML flex attributes ▫ Read through of dimensions configured on Item facts, Mfr Part fact
Single Materialized view consisting of sub-class (Audit, CAPA, NCR, PR, Change Order, Engineering Change Request, Manufacturing Change, Stop Ship)	<ul style="list-style-type: none"> ▫ Read through of dimensions configured on Item facts, sub-class facts

Supported Data Types

The following table lists the data type mappings that are supported.

Target: MDS Table / Column Type	Source: Agile PLM Attribute Type
Dimension	List, cascade, single-select dynamic list
Bridge	Multilist, multi-list cascade, multi-list dynamic
Date	Date
Number	Number
Float	Money
Note Cascade lists are supported up to 5 levels only.	

Using the MDS Configurator

This chapter includes the following:

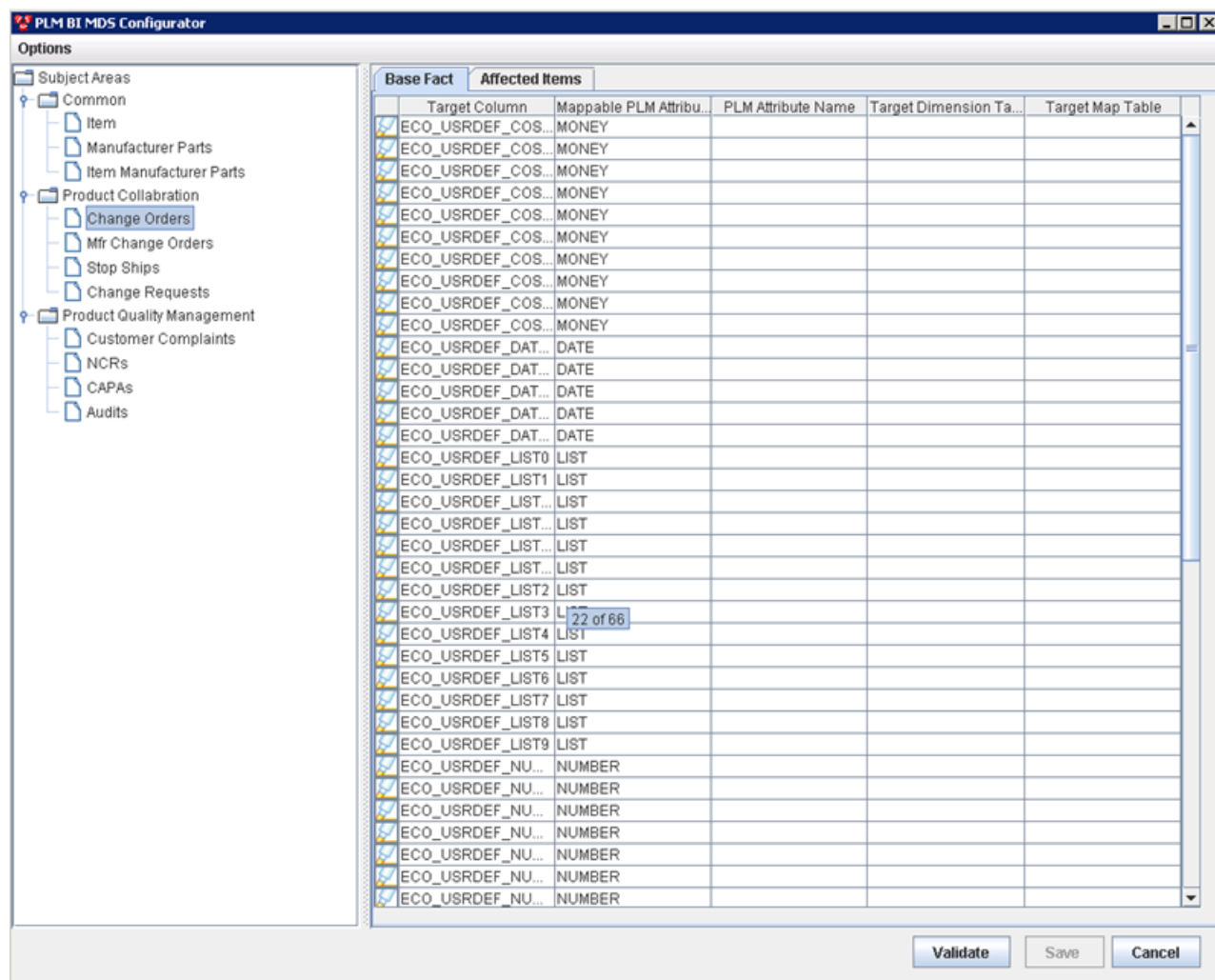
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Key Features

The MDS Configurator interface has two basic panes, the Subject Area pane on the left, and the Mapping Table pane on the right.

- Subject Area - Displays the Agile PLM module and its subject areas.
- Mapping Table - Displays the target and source destinations for all the PLM attributes that can be configured.

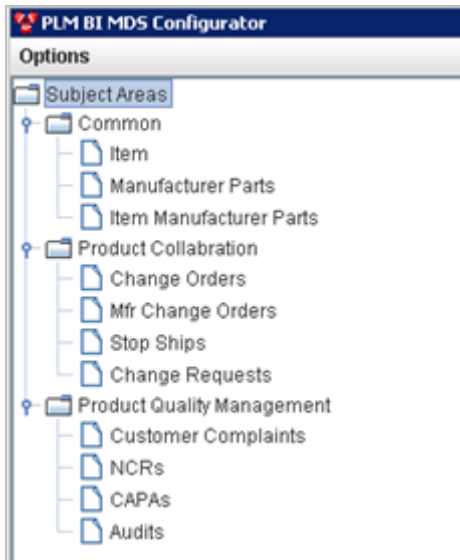
The default values that appear in these panes can be customized as per customer requirements, as described in [Customizing the Interface](#) on page 12.



Understanding the Subject Area Pane

A Subject Area in this context is a group of configurable fact tables in the MDS schema. These tables correspond to subject areas of PLM Analytics modules within Agile PLM Business Intelligence.

The Subject Area pane consists of a hierarchical tree structure. The first level shows the Agile PLM module name, and the second level shows the supported subject areas for that module.



Each subject area can be associated with one or more Fact types. Each fact type appears as a tab on the right pane, where corresponding attributes are displayed.

Understanding the Mapping Table

The right pane consists of a fact table in MDS where target and source information is displayed. Some target values are auto-populated. Source data for each column row needs to be selected manually from the options provided.

Target columns show the target field name and dimension table when applicable. User-defined fields are prefixed with 'USR_DEF'.

Column	Description
Target Column	Column name within the Fact table in MDS schema to which the PLM Attribute is mapped.
Mappable PLM Attribute Type	Type of PLM Attribute (or Field) that can be mapped to the corresponding column in the Fact table. Possible Values: Number, Date, List, Multi-list, and Money.
PLM Attribute Name	Name of the PLM Attribute (or Field) that is mapped to the corresponding column in the Fact table.
Target Dimension Table	Name of the dimension table in the target MDS schema. It is used only if the PLM Attribute Type is "List" or "Multi-List".
Target Map Table	Name of the bridge table in the target MDS schema. It is used only if the PLM Attribute Type is "Multi-List".

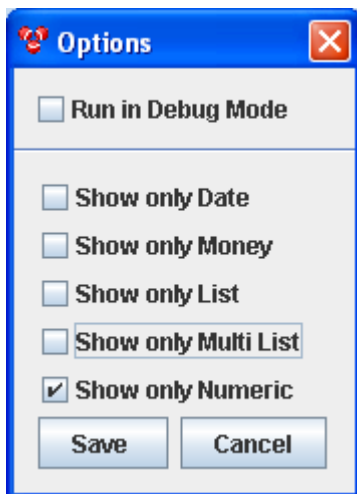
Customizing the Interface

The data elements of the user interface can be customized for your requirement. The settings that can be customized are described in the following table. All configuration files are located at the following path: <install directory>\config

To configure this setting	Edit this file
<ul style="list-style-type: none">▫ User Interface button names▫ Table column headers	Messages_en_US.properties
<ul style="list-style-type: none">▫ Logging levels	log4j.properties

Setting Display Preferences

The Options > Preferences menu enables you to view target columns selectively. The right pane displays the columns from the Base Fact or Affected Items Table pertaining to a chosen subject area. You can choose to view columns with Date, Money, List, Multi-List or Numeric attribute types.



To set the display preferences:

1. Click Options > Preferences
2. Select the attribute types to show in the right pane.
3. Click Save.

Note Select Run in Debug mode to view the Source columns corresponding to the displayed Target columns in the right pane.

Extending User-defined (Configurable) fields

The Options> Schema Enhancer allows you to increase the number of the available user-defined (configurable) fields in the schema.

If the available user-defined configurable fields in the tables are not sufficient to accommodate the business requirements, you can add columns to enhance the MDS Schema. The supported attribute types are Date, List, Number, Money or Multi-List columns.

To add new user-defined columns in the MDS Schema:

1. Click Options > Add user-defined Fields. The MDS Schema Enhancer dialog box appears:

Table Name	Available Date Columns	New Date Columns	Available List columns	New List columns	Available Number columns	New Number columns	Available Money columns	New Money columns	Available Multi List columns	New Multi List columns
PC_SS_F	9		19		15		10		14	
PGM_CAPA_F	7		24		17		10		11	
PGM_NCR_F	7		28		10		10		11	
PC_ECR_ITEM_DATA	5		16		10		15		0	
PC_MCO_ITEM_DATA	5		16		10		15		0	
PGM_AUDIT_F	8		23		17		10		12	
PGM_NCR_ITEM_DATA	5		15		11		10		5	
ITEM_MFR_PART_DATA	5		29		10		10		0	
ITEM_F	9		55		37		10		11	
MFR_PART_F	8		29		20		10		6	
PC_SS_ITEM_DATA	5		16		10		15		0	
PC_ECO_ITEM_DATA	5		16		25		0		0	
PC_ECR_F	9		21		15		10		14	

☐ Generate Revoke File

Generate SQL File Cancel

The dialog box lists the tables which have Date, List, Number, Money, and Multi-List columns and the count of each of these columns for every table.

2. In the New columns cell, enter the number of additional columns of the attribute type you need in the table.
3. Click Generate SQL File to generate the SQL script that enables you to alter the tables to include the additional columns.
4. Save the generated file with a .sql extension.
5. Run the generated SQL file manually on the MDS database schema user, to include the additional user-defined columns in the specific table. The configurator displays the new columns as rows.

Note Select Generate Revoke File checkbox to generate a script that retains the existing table structure. If you want to reverse the addition of new fields, execute the revoke file.

Adding User-defined Dimension Tables to the Schema

If the available dimension tables in the MDS schema are not sufficient to accommodate the business requirements, you can manually add new user-defined dimension tables.

To add new user-defined dimension tables to the Schema:

1. Create new dimension tables in MDS Schema with following structure:

```
CREATE TABLE USRDEF_L<xxx>_D
(
    USRDEF_L<XXX>_ID    NUMBER(22)          NOT NULL,
```

```
NAME                VARCHAR2(4000 CHAR) NOT NULL,
LEVEL0              NUMBER(22),
LEVEL1              NUMBER(22),
LEVEL2              NUMBER(22),
LEVEL3              NUMBER(22),
LEVEL4              NUMBER(22),
LEVEL0_NAME         VARCHAR2(256 CHAR),
LEVEL1_NAME         VARCHAR2(256 CHAR),
LEVEL2_NAME         VARCHAR2(256 CHAR),
LEVEL3_NAME         VARCHAR2(256 CHAR),
LEVEL4_NAME         VARCHAR2(256 CHAR),
USRDEF_TEXT0        VARCHAR2(256 CHAR),
USRDEF_TEXT1        VARCHAR2(256 CHAR),
USRDEF_TEXT2        VARCHAR2(256 CHAR),
USRDEF_DATE0        DATE,
USRDEF_DATE1        DATE,
USRDEF_DATE2        DATE,
USRDEF_NUMBER0      NUMBER,
USRDEF_NUMBER1      NUMBER,
USRDEF_NUMBER2      NUMBER,
LAST_MODIFIED_DATE  DATE,
LIST_ID             NUMBER(22),
ENABLE              NUMBER(1)          DEFAULT 1,
INTEGRATION_ID      VARCHAR2(80 CHAR),
ROW_ID              NUMBER(22),
DATASOURCE_NUM_ID  NUMBER(22)
)
```

Note The name of the table should start with USRDEF. XXX is the number

2. Add the newly created table name as XML element into <installdir>\config\Configurator.xml

```
<usrdimensionTables>
<!--Existing entries
  <list name="USRDEF_L01_D" dimcol="USRDEF_L01_ID"/>
  <list name="USRDEF_L02_D" dimcol="USRDEF_L02_ID"/>
  <list name="USRDEF_L03_D" dimcol="USRDEF_L03_ID"/>
<!--New Entry-->
<list name=" USRDEF_L<xxx>_D " dimcol=" USRDEF_L<XXX>_ID"/>
</usrdimensionTables>
```

3. Save the Configurator.xml file.
-

Running the MDS Configurator

To run the MDS Configurator:

1. Navigate to the *bin* folder within the PLM BI installation folder.
2. Double-click the *Configurator.bat* file. (On Solaris/Linux, run *Configurator.sh*). The MDS Configurator interface is displayed.
3. Once you finish making your changes, click Save to save your changes.
4. To exit the MDS Configurator, click Cancel.

Mapping PLM Attributes

In order to perform an accurate mapping of PLM attributes, you need a thorough understanding of the Agile PLM classes and attribute definitions in the source environment. You must be a power user of the Agile JavaClient.

Before you begin:


- Make sure you have a complete working environment that includes the following layers:
 - Agile PLM JavaClient
 - Agile PLM Data Mart
 - Agile PLM MDS schema and ETL components
- To verify the mapping, keep any database SQL editor open.
- Understand the color coding used in the Configurator:
 - Blue text : Indicates attributes that have already been mapped.
 - Red text: Indicates attributes that are disabled in PLM.
- Keep a copy of the *Agile PLM BI MDS Data Reference Manual* handy to verify target tables used by the BI Reports. You can download this manual from [Oracle Technology Network](http://www.oracle.com/technology/documentation/agile.html) <http://www.oracle.com/technology/documentation/agile.html>.

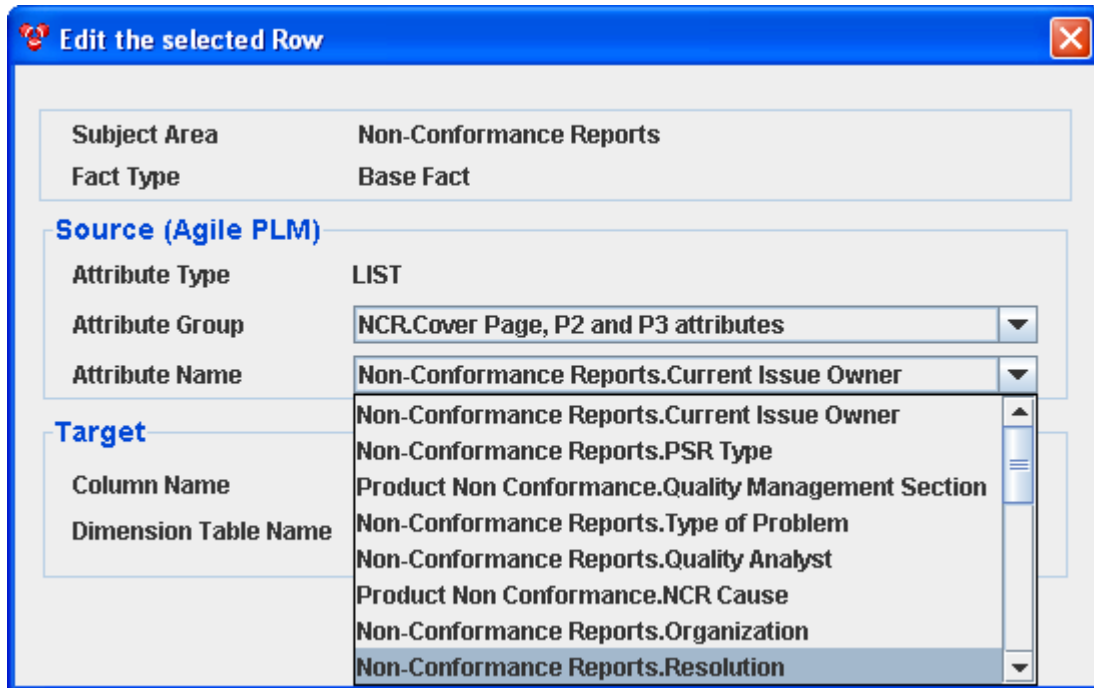
To map attributes:

In the Agile JavaClient Admin module:

1. Open the Setting > Data Setting > Classes node.
2. Open the class or subclass tab from which you wish to source attributes for the MDS target tables.
3. Under User Interface Tabs, select an attribute group, for example, Page Two.
4. View attributes and enter details in the Mapping Reference Sheet provided at the end of this manual.

In the MDS Configurator:

5. In the left pane, expand the subject area category node and click the subject area corresponding to the Agile PLM class. For example, under PQM, click NCR.
6. Choose the Base Fact or Affected Items tab in the right pane as applicable.
7. Select the Target Column row for the attribute type you wish to map, and click . This opens an Edit the selected Row dialog. You can also simply right-click on a target cell to open this dialog.



Subject Area	Non-Conformance Reports
Fact Type	Base Fact
Source (Agile PLM)	
Attribute Type	LIST
Attribute Group	NCR.Cover Page, P2 and P3 attributes
Attribute Name	Non-Conformance Reports.Current Issue Owner
Target	
Column Name	Non-Conformance Reports.Current Issue Owner
Dimension Table Name	Non-Conformance Reports.PSR Type
	Product Non Conformance.Quality Management Section
	Non-Conformance Reports.Type of Problem
	Non-Conformance Reports.Quality Analyst
	Product Non Conformance.NCR Cause
	Non-Conformance Reports.Organization
	Non-Conformance Reports.Resolution

8. In the Edit the selected Row dialog, select options from the drop-down lists to map the field or column to PLM attributes as per the details you entered in the mapping reference sheet:
 1. In the Attribute Group list, select the PLM attribute group from which you wish to source attributes. The list of attribute groups are different for Base Fact and Affected Items. For details, see Supported Mappings.
 2. In the Attribute Name list, select the attribute name that you want to map. The list shows the options that you have enabled in JavaClient. If a list ID has already been mapped to a target dimension table, only those attributes associated with the same list ID are displayed for selection.

If you choose a user-defined list, you are now provided the option to map it to a target dimension table.

Note The Attribute Name list displays only the attribute names that correspond to the Attribute Group you select.

3. From the Dimension Table Name list, select a target dimension table for the mapping. You can map the same list /multi-list attribute to any number of target dimension table names, but a list ID can be associated with only one target dimension table.

4. Click OK.
9. Click Save to save your changes.

Validating Mappings

To validate the attribute mappings that you have done, click Validate. Errors, if any, are displayed in the Errors and Warnings dialog that appears, and also logged in the Configurator.log file located in <install directory>/logs/. To save the errors to a .csv file, click Save to File.

When you click Validate, the MDS Configurator returns an error or a warning if any of the following conditions are met:

- Column already used for mapping - An Agile PLM attribute is mapped to more than one target column in MDS.
- Attribute disabled in PLM after configuration - A previously mapped Agile PLM attribute is now disabled in Agile PLM.
- List modified in PLM after configuration - An Agile PLM attribute previously configured to a conforming dimension has been modified in Agile PLM to use a non-conforming source list.

If you get any of these errors, change the mapping for the attribute identified in the error message.

Validating Data

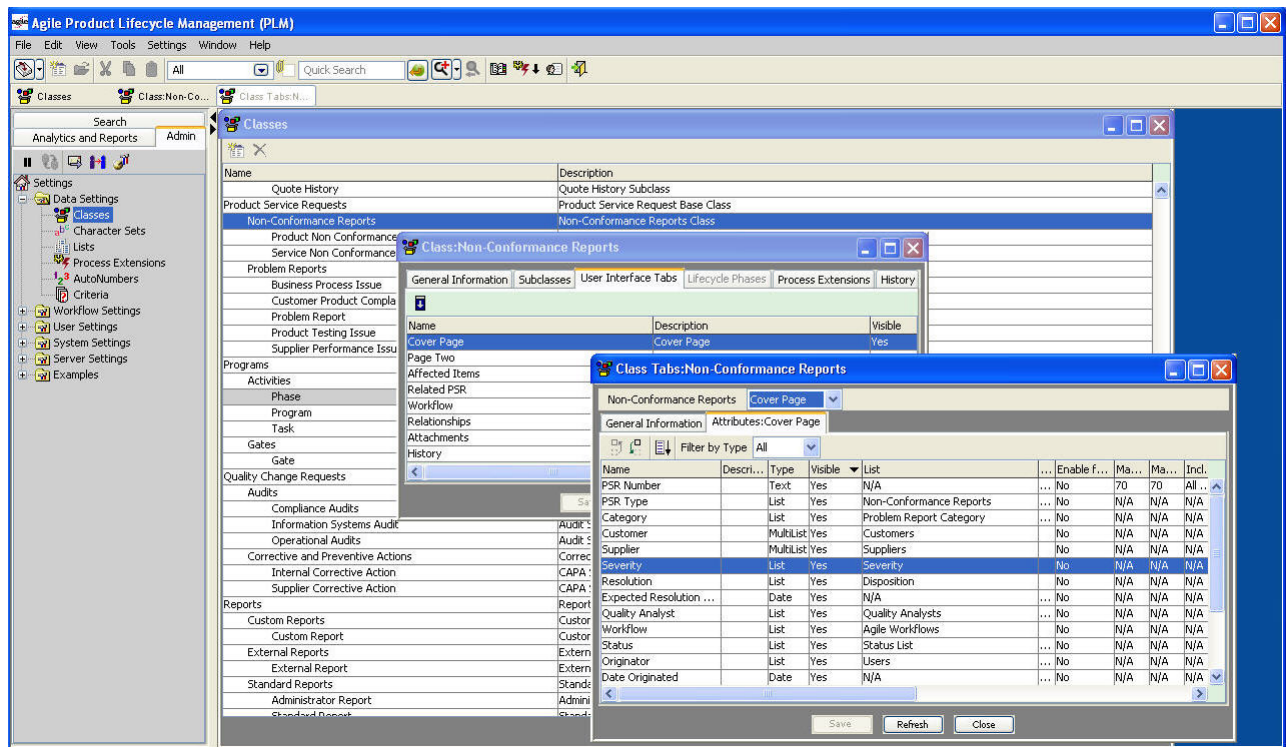
Once you finish mapping, run the MDS ETL (full load) to make sure data loads from the source tables in Agile PLM Data Mart to MDS as per your mapping. To learn how to run the ETL, see [Executing ETL](#) on page 19. Once the MDS ETL is run, data is loaded into the newly configured tables.

After the ETL run, use any database SQL editor to connect to the MDS database and verify the records in the target table.

Example Workflow

In this example, you can see how a Non-Conformance Report - Cover Page attribute is mapped to a user-defined field in the Non-Conformance Reports Base Fact table.


The configuration in PLM is as follows:



The mapping that you need to perform is defined as follows in the mapping reference sheet.

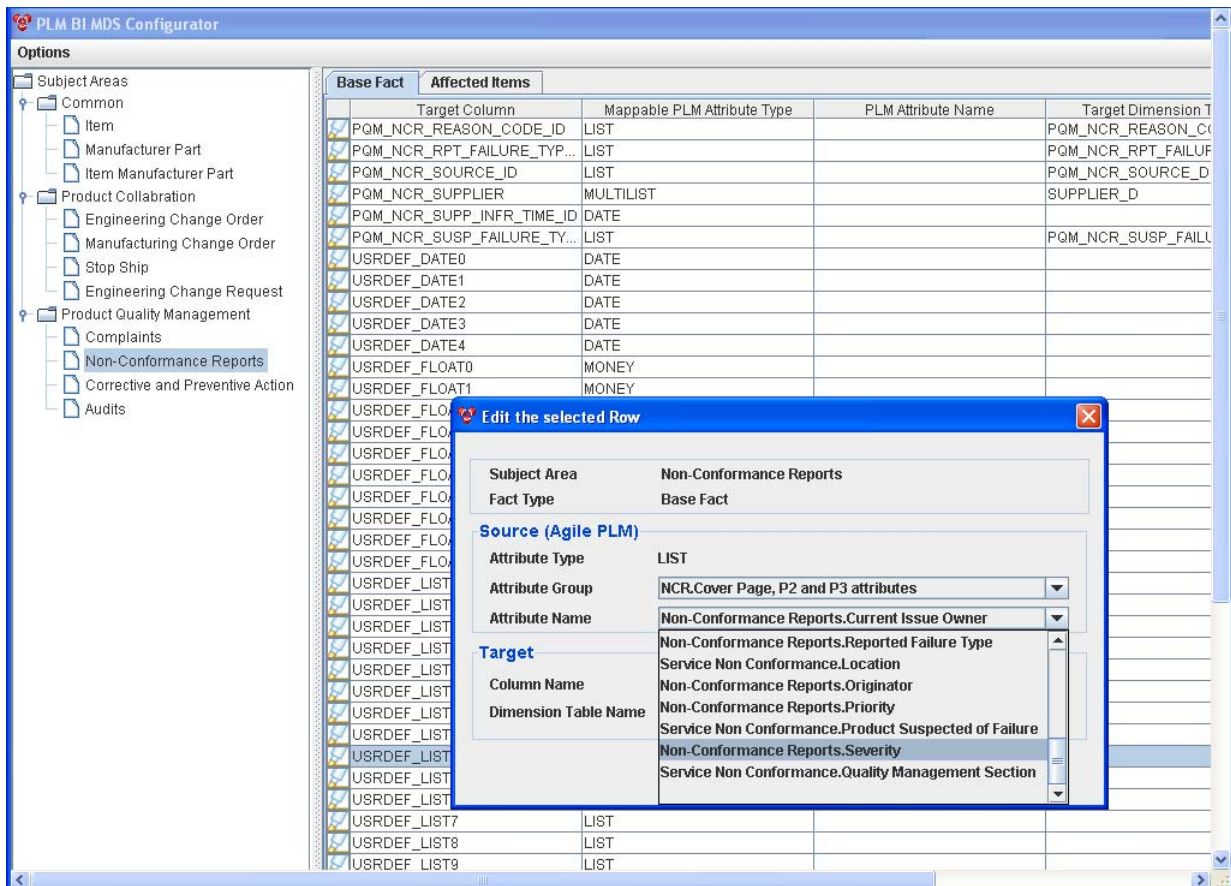
Target Field / Column	Target Attribute Type	Target Dimension Table	Agile PLM Source Attribute	Source Attribute Type	Agile PLM Source Class	Agile PLM Source Subclass
USRDEF_LIST04	LIST	USRDEF_LO4_D	Severity	List (Cover Page)	Product Service Requests - Non-Conformance Reports	Non-Conformance Reports

To map attributes:

1. Open the MDS Configurator.
2. In the Subject Area pane, expand the PQM module node and click the Non-Conformance Reports subject area.
3. Choose the Base Fact tab.
4. Select the target column row USRDEF_LIST04, and click .
5. In the dialog that opens, select the following options from the drop-down list:
 1. In the Attribute Group list, select NCR.Cover Page, P2 and P3 attributes.
 2. In the Attribute Name list, select Non-Conformance Reports. Severity. The list shows the

attributes that are enabled in JavaClient.

3. In the Dimension Table Name list, select USRDEF_LO4_D.
4. Click OK.



6. Click Save.
7. Click Validate.
8. Once you finish mapping, run the MDS ETL as described in [Executing ETL](#) on page 19.
9. Use any database SQL editor to connect to the MDS database and verify the records in the target table column.

Executing ETL

To load data into MDS from the Agile PLM source database, you must execute a data integration task using Oracle Data Integrator Operator. For complete information on installation and usage of ODI, refer to the ODI documentation available for free download at <http://www.oracle.com/technology/documentation/index.html>

Within ODI, to view the status of all the tasks that are under execution, increase the Operator Display Limit to 1000 (the default value is 100). To do this, in ODI Operator, go to File > User Parameters > Set Operator Display Limit, and set the value for Operator display limit as 1000.

To execute ETL from ODI:

1. Launch ODI Operator and login using authentication details for the ODI session created during the Data Mart installation.
2. In the Scenarios tab, view the components listed in the left frame. Right-click on MDS_ETL_LOAD Version 001 and click Execute. A Variables window appears.
3. Under Context, select MDS.

Note To execute ETL for MDS and DM from ODI, execute the component ANALYTICS_ETL Version 001 and select MDS under Context.

4. Click OK. A Sessions Started window appears.
5. Click OK. The ETL process begins.

To execute ETL from the Windows Command Prompt:

1. Change directory to navigate to the *bin* folder in your Data Mart Home Directory, for example, *d:\PLMdatamart\bin*

2. Enter the following command:

```
startdm MDS_ETL_LOAD 001PLMDM
```

where

startdm is the batch file that executes ETL tasks

MDS_ETL_LOAD is the ETL task

001 is the version number of ETL task

MDS is the ETL context

The ETL process starts.

Note After the Configurator Changes, the MDS ETL runs in FULL ETL mode.

To view the status of the ETL process:

1. Log on to ODI Operator.
2. In the Sessions List tab, select All Executions in the left frame to view all running tasks.
Alternatively, in the Hierarchical Sessions tab, select Status or All Executions in the left frame to check overall progress.

FAQs

Answers to some frequently asked questions are provided here for your reference.

Frequently Asked Questions

1. Why are some PLM attributes not appearing in its attribute options list for mapping?
All attributes that are defined in the PLM database are not available for selection. Only those attributes that have corresponding mapping information defined in the Data Mart tables are displayed.
2. Can I map disabled attributes using the Configurator?
The Configurator does not support the mapping of disabled attributes. If a previously mapped attribute is subsequently disabled in PLM, the mapping is highlighted in red for your attention.
3. Why am I prompted to select a target dimension table only for certain attributes?
You can change the target dimension table only for list, multi-list, and user-defined attributes. For conforming dimension tables, you can only change the attribute name.
4. Why do some of the dimension table names in the list appear in blue?
This indicates that the dimension table has already been mapped for the selected attribute.
5. Only a few PLM attributes are displayed for the predefined dimension table names. Why?
Some List IDs may already have been mapped to a predefined dimension table in another row or tab. In this case, only the attributes for the same List ID are displayed. A target dimension table can be mapped to only one List ID.
6. Can I start the Configurator before the ODM ETL process runs?
Yes, but Flex attributes will not be available for mapping.
7. Can I use the Configurator while the MDS ETL is running?
This is best avoided as it can interfere with the ETL process.
8. Why are some of my flex attributes not displayed in the MDS Configurator?
Newly created flex attributes should have been entered in the new columns using the Agile JavaClient or WebClient in order to be picked up by the ODM ETL process. Unless this is done, these attributes will not appear in the MDS Configurator.
9. Will my changes to Agile PLM configuration require any changes to existing mappings?
After you finish the initial mapping of PLM attributes, you will need to update the mappings whenever a mapped attribute is changed or disabled in Agile PLM.
10. I have PLM BI 3.0 installed in my machine. What do I need to know specific to MDS Configurator, before I begin upgrading to PLM BI 3.1?
You need to take a manual backup of the configuration files and BI data dictionary table in MDS schema before you upgrade to PLM BI 3.1. For more information, refer *Agile PLM BI Setup Guide*.
11. What is the difference between MDS Configurator versions 3.0 and 3.1?
In MDS Configurator 3.1, the Affected Items Fact table does not support Read-through

attributes.

12. When I upgrade to MDS Configurator 3.1, what happens to the configurations done using MDS Configurator 3.0?

See Upgrade considerations section in *Agile PLM BI Setup Guide*.

13. In MDS Configurator, if I need more mappable fields what should I do?

Use Options > Add user-defined fields menu to add more user-defined configurable fields. See Extending user-defined (Configurable) fields.

14. Can I extend the number of User-defined dimension tables using MDS Configurator?

No. For information on adding user-defined dimension tables to MDS Schema using MDS Configurator, refer section, Adding User-defined dimension tables to the Schema.

The MDS Configurator supports only the extension of columns in Fact tables and creation of corresponding bridge tables (wherever applicable).

15. How do I get more elaborated logging messages in my log file?

MDS Configurator uses Apache log4j libraries for logging messages. You can change log4j.properties file with different logging level (INFO, DEBUG, WARN, ERROR) to control the type of messages logged in the log file.

For further information see Apache log4j at <http://logging.apache.org/log4j/1.2/manual.html>

Troubleshooting Guidelines

Some common errors that can occur while using the MDS Configurator are outlined here along with suggested resolution.

1. The System cannot find the file specified.

Check if any of the following files are missing under the <install.dir>/config directory. If any are missing, reinstall BI.

- *BiDataLayerConfig.properties*
- *Configurator.xml*
- *Configurator.xsd*
- *log4j.properties*
- *Messages_en_US.properties*

2. TNS:listener does not currently know of SID given in connect descriptor.

Ensure that the SID provided in the following token within the *BiDataLayerConfig.properties* file is the same as the database SID.

```
TGT_DB_URL =jdbc:oracle:thin:@<machine name>:<port number>:<SID>
```

3. Invalid username/password; logon denied.

Check if the following tokens reflect the right user name and password information in the *BiDataLayerConfig.properties* file:

- ODM_UN - user name for Data Mart database schema
 - ODM_PASSWORD - password for Data Mart database schema user
-

- BI_USER_NAME - user name for MDS database schema
- BI_PASSWORD - password for MDS database schema user

Encode the Data Mart and MDS passwords and compare the values with the ODM_PASSWORD and BI_PASSWORD.

4. TNS:listener could not hand off client connection.

or

Error while saving records.

Test your database connection and make sure the database server is up.

5. userid: following logging levels are used in application

userid: fatal - The FATAL level designates very severe error events that will presumably lead the application to abort

INFO-The INFO level designates informational messages that highlight the progress of the application at coarse-grained level.

ERROR-The ERROR level designates error events that might still allow the application to continue running.

DEBUG-The DEBUG Level designates fine-grained informational events that are most useful to debug an application.

Appendix A

Mapping Reference Table

Use the following table to enter attribute information so that you can refer to it while performing the mapping in the MDS Configurator. The first row is filled in as an example.

#	Target Field / Column	Target Type	Target Dimension Table	Agile PLM Source Attribute	Source Attribute Type	Agile PLM Source Class	Agile PLM Source Subclass
0	USRDEF_LIST01	LIST	USRDEF_LO1_D	Partner Type	Page 3 List	Problem Reports	Partner Complaints
1							
2							
3							
4							
5							
6							
7							
8							

