



# **Oracle Product Lifecycle Analytics**

Readme

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# Preface

Oracle's Agile PLM documentation set includes Adobe® Acrobat PDF files. The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.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.

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**Note** To read the PDF files, you must use the free Adobe Acrobat Reader version 9.0 or later. This program can be downloaded from the [Adobe Web site](http://www.adobe.com) <http://www.adobe.com>.

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The [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.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 My Oracle Support (<https://support.oracle.com>) for assistance.

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

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## TTY Access to Oracle Support Services

Oracle provides dedicated Text Telephone (TTY) access to Oracle Support Services within the United States of America 24 hours a day, 7 days a week. For TTY support, call 800.446.2398. Outside the United States, call +1.407.458.2479.

## 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/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.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](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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# Oracle Product Lifecycle Analytics Overview

### This chapter includes the following:

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- Technical Notes ..... 1
- What's New in Oracle PLA 3.3.1.0.0 ..... 2

Oracle Product Lifecycle Analytics (Oracle PLA) is a comprehensive, prebuilt Business Intelligence solution that delivers pervasive intelligence and provides key insights into your Product Lifecycle Management (PLM) data. The Oracle Product Lifecycle Analytics Application provides an integrated view of the product to enable greater alignment of information across product organizations. It is built on Oracle Data Integrator (ODI) ETL and Oracle Business Intelligence Enterprise Edition (OBIEE) platforms.

Oracle PLA addresses the business use cases specific to Product Quality Management (PQM), Product Collaboration (PC), and Product Portfolio Management (PPM), Agile PLM for Process: New Product Development (NPD) and Global Specification Management (GSM).

Oracle PLA provides you with the ability to use different source systems. Data is transferred from the source systems to the Oracle PLA target analytical data store. In Oracle PLA Release 3.3 and higher, the transactional data sources are either Agile PLM 9.x or Agile PLM for Process.

Oracle PLA 3.3.1.0.0 is available for English language only, but the application is enabled for translations to other languages. Oracle PLA 3.3.1.0.0 is a full installer.

## Technical Notes

You can upgrade from Oracle Product Lifecycle Analytics (Oracle PLA) 3.3.0.1 to Oracle PLA 3.3.1.0.0, if you are using the Agile PLM database.

You can upgrade from Oracle PLA 3.3 to Oracle PLA 3.3.1.0.0, if you are using the Agile PLM for Process database.

To upgrade to Oracle PLA 3.3.1.0.0, follow these steps:

1. Log in to [My Oracle Support](https://support.oracle.com) on page 1, <https://support.oracle.com>.
2. Select the **Patches & Updates** tab.

3. In the **Patch Search** section, select the **Product or Family (Advanced Search)** link.

4. Select the **Include all products in a family** checkbox.

5. Enter the following search parameters:

- **Product:** Oracle Product Lifecycle Analytics
- **Release:** Oracle Product Lifecycle Analytics 3.3.1
- **Platform:** Select the appropriate platform, for example, Microsoft Windows (32-bit).

Click **Search**.

6. The link to the **Mandatory file upgrade\_prerequisites.zip for OPLA 3.3.1 upgrade (Patch)** is displayed in the search results section.

7. Under **Patch Name**, select **13555197**, and click **Download**.

8. From the `p13555197_331_Generic.zip` file, extract the contents of the `upgrade_prerequisites.zip` file to `<OPLA_INSTALL_HOME>\upgrade`.

**Important**      You must create the `upgrade` sub-folder *before* extracting the contents of the `upgrade_prerequisites.zip` file.

9. Follow the steps listed in the "Cleaning ODI-related Tables" section, and the "Cleaning ODI Repository Objects" section, in Chapter 4 of the *Oracle PLA Installation and Setup Guide*.

## What's New in Oracle PLA 3.3.1.0.0

Oracle Product Lifecycle Analytics (Oracle PLA) Release 3.3.1.0.0 contains the following *new* certifications:

- Certification for Agile PLM 9.3.0.3
- Certification for Agile PLM 9.3.1.2
- Certification for Agile PLM for Process 6.0.0.5.6

The Oracle PLA Release 3.3.1.0.0 introduces the following new features and enhancements.

1. Support for OBIEE 11g. Out-of-the-box Dashboards and Reports are upgraded to OBIEE 11g version. If you created additional Dashboards and Reports in previous versions of OBIEE, you must migrate them to the OBIEE 11g version.
2. New set of measures for the number of Open metrics in the Change Order subject area. Oracle PLA recommends using these measures for Agile PLM sources that contain a large number of Change Orders.

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**Note** This new set of measures is preaggregated by time, such as, # Open Change Orders by Calendar Year, or Quarter, or Month, or Week.

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3. New set of cumulative measures for the Change Order subject area. Oracle PLA recommends using these measures for Agile PLM sources that contain a large number of Change Orders.

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**Note** This new set of measures is preaggregated by time, such as, # Open Change Orders by Calendar Year, or Quarter, or Month, or Week.

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4. New Runtime Configuration parameter called **Change Orders**. Based on the date selected, Change Orders allows you to analyze week-level aggregations over a period of months or years.
5. **Description** dimension is now added to **Manufacturer Parts** subject area, the entire **Product Quality** analysis area, and the entire **Product Change** analysis area.
6. New set of Item risk measures divided into the following four categories:
  - a. Prelim Item
    - Prelim Item with Change Orders
    - Prelim Item with Change Requests
    - Prelim Item with Mfr Change Orders
    - Prelim Item with Stop Ships
    - Prelim Item with Deviations
  - b. % Prelim Item
    - % Prelim Item with Change Orders
    - % Prelim Item with Change Requests
    - % Prelim Item with Mfr Change Orders
    - % Prelim Item with Stop Ships
    - % Prelim Item with Deviations
  - c. # Items

- # Items with Change Orders
  - # Items with Change Requests
  - # Items with Mfr Change Orders
  - # Items with Stop Ships
  - # Items with Deviations
- d. % Items
- % Items with Change Orders
  - % Items with Change Requests
  - % Items with Mfr Change Orders
  - % Items with Stop Ships
  - % Items with Deviations
7. Support for Oracle PLA installation on Oracle Database Real Application Cluster.
8. Support for Oracle Database 11g Release.

## Notes on Implementing Oracle PLA with PLM for Process

### Cycle Time Calculations

The cycle times for individual objects (such as Projects, Activity, and Specifications) are provided as integers within Oracle PLA. In these calculations, the decimals are not rounded off, they are truncated as described below. It is important to understand the following:

- The calculations are performed taking into account the time stamp in addition to the date:  
For example:  
**Duration = End Date: 09-14-10 12:00:00 - Start Date: 09-10-10 08:01:35 = 3.6655**
- Decimals are truncated at this point:  
**Duration = 3.6655 = 3**



## NPD Project Schedule Activity Type

It is required that a customer implementing Oracle PLA with PLM for Process implement the new functionality associated with NPD's Project Schedule Activity Type released as part of PLM for Process 6.0.0.3.

In addition, note that if a project does not have at least one instance of a project schedule approved and in a terminal step, then scheduled dates will not be available in Oracle PLA. Only actual and template dates/durations are available in the absence of a project schedule.

**Important** You need to execute a Full Load after any Agile PLM configuration changes.

## Software Requirements

This table lists all the software requirements for an Oracle Product Lifecycle Analytics installation.

Software Component	Name	Version
Browsers	Internet Explorer	Refer to the <i>Oracle Business Intelligence Infrastructure Installation and Configuration Guide</i> for supported versions.
	Firefox	
	Safari*	
Oracle Business Intelligence – BI server and Presentation services	Enterprise Edition	10.1.3.4.x , 11.1.1.5, 11.1.1.6
Database server	Oracle Enterprise Edition	10.2.0.4, 11.1.0.6, 11.1.0.7, 11.2.0.1
	Microsoft SQL Server (Agile PLM for Process only)	2005 SP2, 2005 SE
Data Integration Component	Oracle Data Integrator	10.1.3.5, 10.1.3.6.2
Software Development Package	Java Development Kit	1.5.x, 1.6 <b>Note</b> Agile PLM for Process requires JDK 1.6 or higher
Operating Systems	Microsoft Windows Server	2003** ( 32 bit and 64 bit )*** 2008

Software Component	Name	Version
	Oracle Enterprise Linux	5.4 ( 32 bit and 64 bit )
	Red Hat Linux	5.4 ( 32 bit and 64 bit )
	Sun Solaris	10 ( SPARC 64 bit )
	AIX	5.3, 6.1
	HP-UX	11.31
Data Source	Agile PLM Releases	9.2.2.4, 9.3, 9.3.0.1, 9.3.0.2, 9.3.0.3, 9.3.1, 9.3.1.1, 9.3.1.2
	Agile PLM for Process	6.0.0.3 with EP 2.4.1**, 6.0.0.5.6, 6.1
<p>*Only OBIEE 11.1.1.5 supports the Safari browser.</p> <p>**Agile PLM for Process SQL Server Database Source is supported on the Windows OS only. EP 2.4.1.0.9 is only needed if you are going to extend or customize your BI solution to use fields from the Extended Attribute Denormalization capability of the source database.</p> <p>***Oracle Business Intelligence may have some restrictions on a 64-bit platform. Refer to the <i>Oracle Business Intelligence Infrastructure Installation and Configuration Guide</i> for additional details.</p>		

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**Note** For install options specific to various Web servers see the *Oracle Business Intelligence Infrastructure Installation and Configuration Guide*.

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# Resolved Issues

The following bugs or enhancements are resolved in this release:

- **12418674**  
**Reports will display 'UNDEFINED' for any dimensions that are not associated with a measure.**  
In the Agile PLM source system, Change Order -1234 has no value associated for Product line (multi-list).  
A report with Measure: # New Change Orders, Dimension: Change Order number and Dimension: Product line will return the following result:  

Change Order Number	Product line	# New Change Orders
Change Order- 1234	UNDEFINED	1
- **11867833**  
If there is a conforming dimension between two or more subject areas, the design assumption in the past releases was that both these lists/multi-lists used the same out-of-the-box list within Agile PLM. In Oracle PLA 3.3.1.0.0 this design is enhanced so that a conforming dimension has two different lists for the conforming dimension within Agile PLM, yet gets the relevant data for the conforming dimensions in two or more subject areas.  
For example: A conformed dimension such as Product Line between the Change Orders subject area and the Change Requests subject area may have one of the classes - Change Requests Product line list that is not an out-of-box list. In this case Oracle PLA shows the dimension values for Product line in both the Change Orders subject area and the Change requests subject area, despite the fact that the Change Request has a different list associated with it.

The following bugs were resolved in the Oracle PLA patch release 3.3.0.1.1, and the fixes are merged with this release:

- **12903177**  
**EXTENDING USER DEFINED FIELDS FOR PPM IN CONFIGURATOR CAUSES ETL ERROR**
- **12903238**  
**PPM ATTRIBUTE "TOP-LEVEL PROJECT" CONTAINS AGILE OBJECT IDS WHEN MAPPED AS DIMENSION**

- **12927874**  
**LIST VALUE NOT AVAILABLE IN PC\_ECR\_F ACCORDING TO CONFIGURATOR MAPPING**
- **12950209**  
**STAGING TABLE ODM\_ITEM\_LIFECYCLE\_D IS MISSING ENTRIES**
- **13326189**  
**USER LOGIN INTO AGILE BI WITHOUT PASSWORD**

The following bug was resolved in the Oracle PLA patch release 3.3.0.1.2, and the fix is merged with this release:

**DATA POPULATES ONLY IN PPM\_ACTIVITY\_FS FOR USER DEFINED MAPPING USING SCHEMA ENHANCER**

- **ISSUE:** If user-defined fields generated with Schema Enhancer are used for mapping, then the data is populated into the PPM\_ACTIVITY\_FS table only after the ETL run is complete.
- **WORKAROUND:** Customization is required to ensure that data is populated in the logical tables.

**Important** For the Agile Product Portfolio Management module, you cannot map a cascade list to any of the target list attributes.

The following bug was resolved in the Agile PLM BI patch release 3.2.0.1.9, and the fix is merged with this release:

- **12736870**  
**NONE OF THE NCR REPORT USING FAILURE MODE WORKING PROPERLY UNDER ITEM QUALITY SUBJECT AREA IS WORKING PROPERLY.**

# Known Issues

The following issues are known to exist in Oracle PLA 3.3.1.0.0 for Agile PLM. These were deferred from this release, but may be fixed in a future release.

**Important** You need to execute a Full Load after any Agile PLM configuration changes.

### CANNOT UPGRADE TO ORACLE PLA 3.3.1.0.0 IF USING ORACLE PLA 3.3.0.1.1 OR ORACLE PLA 3.3.0.1.2

- **Issue:** Cannot upgrade to Oracle PLA 3.3.1.0.0 if using Oracle PLA 3.3.0.1.1 or Oracle PLA 3.3.0.1.2 because after applying the 3.3.0.1.1 patch the etl\_version table datamart column value is set to 3.3.0.1.1.
- **Workaround:** Log into the ODM schema and then execute the following sql query:

```
UPDATE etl_version SET datamart = '3.3.0.1';  
commit;
```

### FULL LOAD ETL FAILS WHEN THE SOURCE IS UPGRADED TO AGILE PLM 9.3.1

- **Issue:** The Full Load ETL fails when the source is upgraded to Agile PLM 9.3.1 from older versions. This issue is an A9 related upgrade script and the bug logged against it.
- **Workaround:** Execute the following SQL statements in MDS Schema.
  - ALTER TABLE PPM\_BASELINE\_F MODIFY PRJ\_SCH\_DUR NUMBER;
  - ALTER TABLE PPM\_BASELINE\_F MODIFY PRJ\_EST\_DUR NUMBER;
  - ALTER TABLE PPM\_BASELINE\_F MODIFY PRJ\_EST\_VAR\_DAYS NUMBER;

## DISABLING THE LANGUAGE TABLE WHEN A DIMENSION TABLE IS CONFIGURED TO A DYNAMIC LIST

- **Issue:** Dimension that is premapped out-of-the-box to an Agile PLM attribute does not show any data if the Agile PLM attribute's list is reconfigured to a dynamic list of object data type (For example, Item, User and so on) from the out-of-the-box configured standard list (For example, Category Type) in Agile PLM Administrator. This is because the dimension table in the BI Model (PLMA.RPD) does a join to lookup localized data from the LANG table, in addition, the Agile PLM does not maintain any localized data for a dynamic object based list, and thus it is not loaded into the LANG table. As result of this, some reports (such as reports using the Part Category dimension) do not show results. In order to address the issue, the LANG table lookup needs to be disabled for these dimensions in the Oracle BI Model (PLMA.RPD). You must disable the language data [LANG table] lookup in the BI Model in order for Dimension to show proper data.
- **Workaround:** To disable the language data [LANG table] lookup in the BI Model in order for Dimension to show proper data, follow these steps:
  1. Log in to the OBIEE Administration tool.
  2. Identify the dimension that is configured to a dynamic list.
  3. In the RPD navigate to the BMM layer, and open the dimension's **Logical Table Source**.
  4. From the dimension's **Logical Table Source** remove the \_LANG table. Select the **Column Mapping** tab and remap the Name column to the Name column in the dimension table.
  5. Select the **Content** tab and remove the "WHERE" clause.

## LIMITATIONS WITH AGILE FLEX ATTRIBUTES

- **Issue:** Agile PLM Data Mart supports up to 950 Agile PLM flex fields (enabled) in an Agile PLM class or its subclasses. The metadata and the mapping for 950 fields are available in the metadata table (ODM\_FLEXCOLS\_METADATA) and the data for these fields are available in the class-specific P4 table. The metadata and data beyond 950 fields are not available in the above-referred tables. In case a Class or its Subclass has more than 950 fields, Data Mart brings in the fields sorted by Class and Subclass Identifier.
- **Workaround:** Set up Page 3 fields instead of flex fields to stay within 950 flex fields per class and its subclasses.

**SECURITY VULNERABILITY ISSUES**

- **Issue 1:** The Agile database schema password is encrypted using a Java program that uses Symmetric Block Cipher whose implementation is based on Blowfish encryption algorithm, and the encrypted password is stored in a configuration file in the installed directory. The Java program randomly picks a 32-byte key from a pre-defined set of keys. This approach of key management and symmetric algorithm choice of library is not the most rigid encryption used and potentially poses security issues if any user is able to access the Java class files and the encrypted password stored on the machines on which Oracle Product Lifecycle Analytics software is installed. In general, this software is installed by IT professionals on machines within firewalls and these files are not generally accessible by other users.
- **Workaround:** Make sure the machines and the directory on which the software is installed is not accessible by other users.
- **Issue 2:** PL/SQL source code delivered with this product is not obfuscated and poses security vulnerability if database schema is accessed by an impostor.
- **Workaround:** Make sure schema user names and passwords are not exposed to users and the software installation location is not accessible by other users.

**UNABLE TO CONFIGURE PR AFFECTED ITEM MULTILIST01 TO MULTILIST03**

- **Issue:** Affected Item Multilist01 to Multilist03 attributes for PR, NCR, CAPA and Audit classes cannot be configured in MDS Configurator.
- **Resolution:** A new file *MDS\_DD\_93UPDATE\_33.sql* has been added to update the proper attribute ID for MULTILIST01-03 in ODM\_DATA\_DICTIONARY.

Tables affected are:

ODM\_PSR\_PR\_ITEM

ODM\_PSR\_NCR\_ITEM

ODM\_QCR\_CAPA\_ITEM

ODM\_QCR\_AUDITS\_ITEM

The *MDS\_DD\_93UPDATE\_33.sql* script should be manually executed on the ODM schema, and followed by an ETL run. The script is available at the following location:

`<install_dir>/install/schema/mds.`

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**Note** This script should be executed only for Agile PLM version 9.3 or higher.

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**DATA IS NOT POPULATING FOR EXTENDED ATTRIBUTE WITH DATA TYPE "QUANTITATIVE RANGE"**

- **Issue:** The EA Attribute Type "Quantitative Range" for NPD is not supported in Oracle PLA 3.3.1.0.0.
- **Resolution:** This issue will be resolved in subsequent releases.



# Related Documentation

Oracle Product Lifecycle Analytics documentation is available on the [Oracle Technology Network \(OTN\) Web site](http://www.oracle.com/technetwork/documentation/agile-085940.html) <http://www.oracle.com/technetwork/documentation/agile-085940.html>.

- Oracle Product Lifecycle Analytics Installation and Setup Guide
- Oracle Product Lifecycle Analytics User Guide
- Oracle Product Lifecycle Analytics Data Reference Manual
- Oracle Product Lifecycle Analytics Configurator and Data Mapping Guide
- Oracle Product Lifecycle Analytics Security Guide

You can also find product documentation for Oracle Data Integrator and Agile Product Lifecycle Management on the [Oracle Documentation](http://www.oracle.com/technetwork/indexes/documentation/index.html) <http://www.oracle.com/technetwork/indexes/documentation/index.html> page.