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Agile Product Lifecycle Management

Business Intelligence Setup Guide

V 3.0

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Preface

The Oracle|Agile 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 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.

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 the Agile Web Client and the 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.

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

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Readme

Any last-minute information about Oracle|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

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About this Guide

This guide enables you to successfully install the Agile PLM BI 3.0 application. It is presumed that you are familiar with or have working knowledge of Oracle Data Integrator, Oracle Business Intelligence Enterprise Edition, Agile PLM, PLM DM 3.0 and Oracle Database.

Objective

The main objectives of this guide are to:

- Identify installation components
- Understand installation process flow
- Provide minimum hardware requirements and guidelines for sizing hardware
- Provide information on different deployment configurations
- Troubleshoot the installation

Note This document does not explain the installation basics of OBIEE, ODI, and Databases. Refer <http://www.oracle.com/technology/documentation/index.html> for documentation related to OBIEE, ODI and Databases.

Acronyms

Acronym	Expansion
BI	Business Intelligence
DB	Data Base
DM	Data Mart
ERP	Enterprise Resource Planning
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

Product Overview

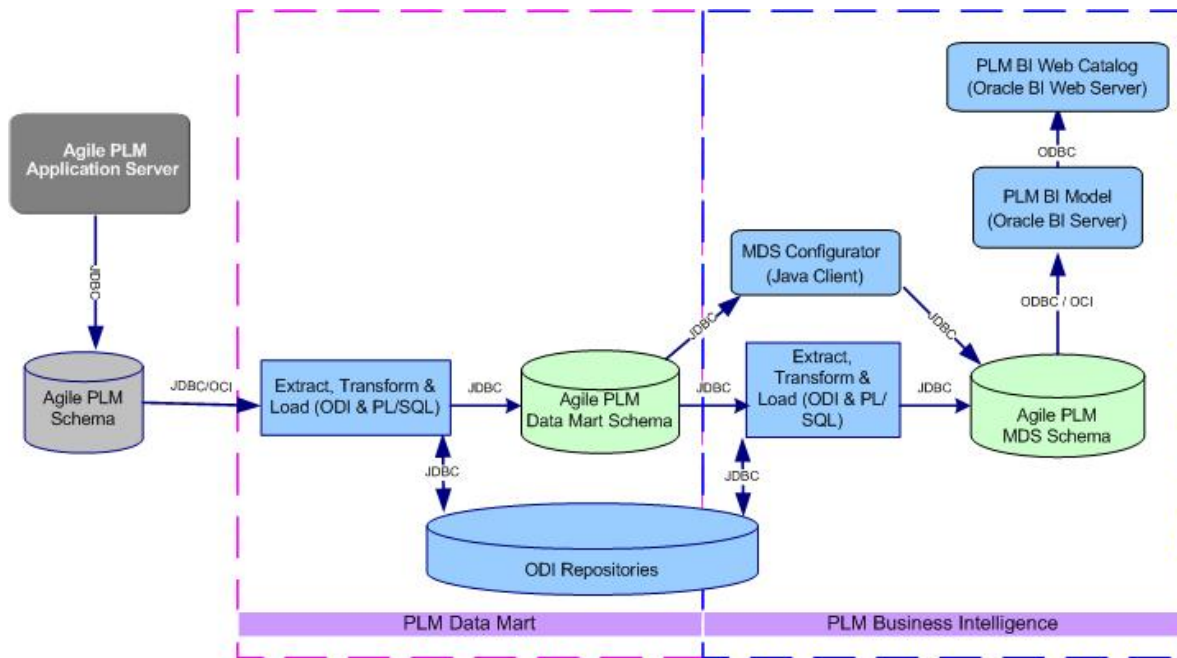
Introduction

Oracle PLM Business Intelligence 3.0 is a business-ready analytics solution built on Oracle Business Intelligence Enterprise Edition platform for Agile PLM Performance Management and Decision Support. The product is integrated with Oracle’s ETL, OLAP and BI technology platforms.

Oracle PLM BI 3.0 addresses the business use cases specific to Product Quality Management. The product design supports integration of Oracle Business Intelligence application across Customer Relationship Management (CRM) and Supply Chain Management (SCM) subject areas with data from E-business, SAP, Siebel and PeopleSoft source systems.

BI Architecture

The following illustration of PLM BI architecture depicts the positioning of various modules:



Components

The various components in PLM BI 3.0 Component Architecture are as follows:

- Oracle Data Integrator (ODI)

- Agile PLM Data Mart Schema
- ODI Repositories
- Agile PLM Multi-Dimensional Schema(MDS)
- PLM BI Configurator
- PLM BI Model
- PLM BI Web Catalog

Oracle Data Integrator

Oracle Data Integrator is an application which uses Extract-Transform-Load process to transform data from one schema to another. ODI uses PL SQL procedures to implement the Extract-Transform-Load process.

Agile PLM Data Mart Schema

This is an operational Data Store built from Agile PLM OLTP (Online Transaction Processing) database.

ODI Repositories

ODI Repositories maintain all information related to definition and execution of ETL processes.

Agile PLM BI MDS

This Star Schema contains Fact and Dimension tables that enable you to create Analytical Reports using any Reporting application.

PLM BI Configurator

This is a stand alone tool enables you to associate configurable PLM data to the MDS depending on various individual user PLM configurations.

PLM BI Model

PLM BI Model is the component which uses PLM BI MDS Schema to generate information required for Analytical Reports. The calculations on the MDS data, definition of various metrics, visibility and personalization of the data specific to the roles or user login are the key functions of this module.

PLM BI Web Catalog

PLM BI Web Catalog component presents organized information in the form of Reports on PLM BI Interactive Dashboards.

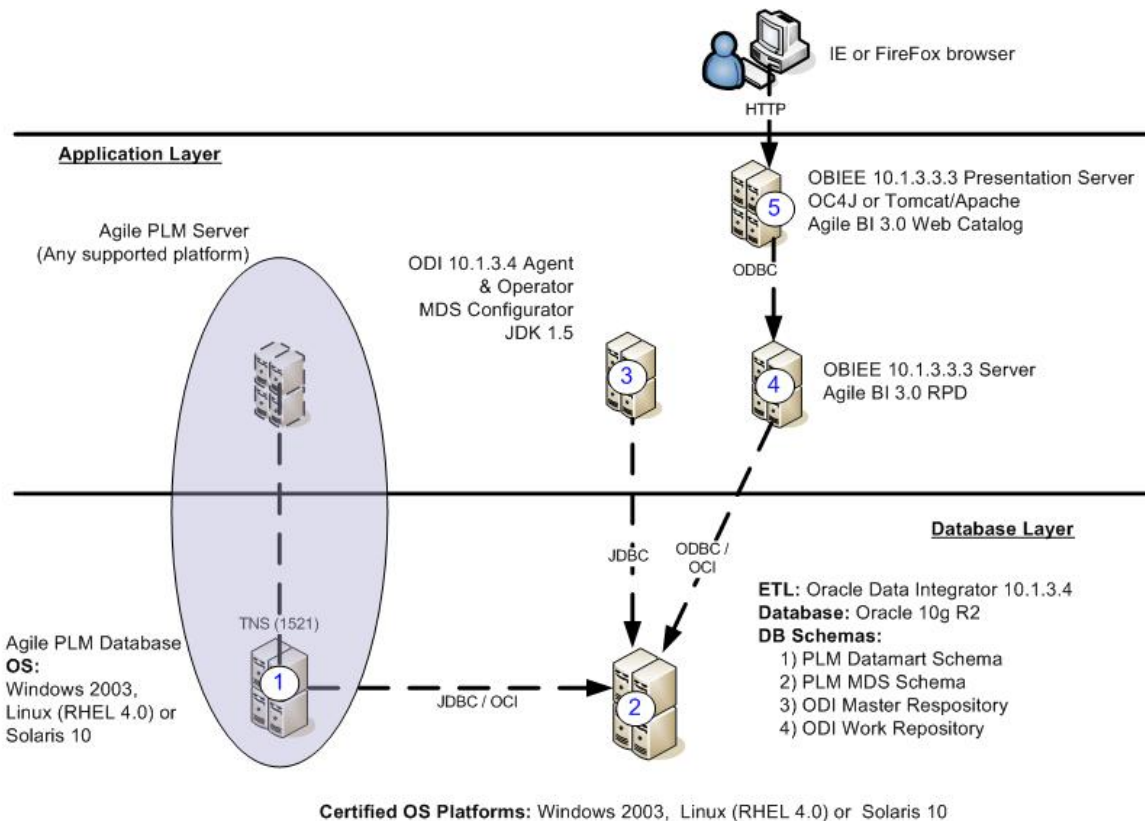
Deployment Configuration

Deployment of the PLM BI 3.0 differs on the basis of the Operating Environments. For example, the deployment configurations for testing and production work environments are different. The installation includes components specific to PLM Data Mart and PLM BI 3.0 applications along with the OBIEE and ODI products.

You can deploy these components on a single system or distribute them across systems on the basis of the strength of the customer base.

Customer Base	Reference
Small	Development Environment that uses small data sets
Medium	Development and Production Environments
Large	Highly protective data center Environments that uses large data sets

An illustration of the Deployment Configuration in Large Customer base is as follows:



The following are the two main layers in Deployment:

- Database Layer
- Application Layer

Database Layer

Database Layer consists of the following components distributed across servers:

- Agile PLM Database
- Oracle Data Integrator 10.1.3.4
- Oracle 10g R2
- PLM Datamart Schema
- PLM MDS Schema
- ODI Master Repository
- ODI Work Repository

Application layer

Application Layer consists of the following components distributed across servers:

- ODI Agent and Operator
- PLM BI Configurator
- JDK 1.5
- OBIEE 10.1.3.3.3 Presentation Server
- OC4J or Tomcat/Apache
- Agile PLM BI 3.0 Web Catalog
- OBIEE 10.1.3.3.3 Server
- Agile PLM BI 3.0 RPD
- Internet Explorer or Firefox browser

The following matrix depicts the Deployment configuration for various customer bases:

	Customer Base	Small		Medium			Large				
	Servers S1, S2, S3, S4 S5	S1	S2	S1	S2	S3	S1	S2	S3	S4	S5
Software Components	Agile PLM Database	✓		✓			✓				
	Oracle Data Integrator 10.1.3.4.2		✓		✓			✓			
	Oracle 10g R2		✓		✓			✓			
	PLM Datamart Schema		✓		✓			✓			
	PLM MDS Schema		✓		✓			✓			
	ODI Master Repository		✓		✓			✓			
	ODI Work Repository		✓		✓			✓			
	ODI Agent and Operator		✓		✓				✓		
	PLM BI Configurator		✓		✓				✓		
	JDK 1.5		✓		✓				✓		
	OBIEE 10.1.3.3.3 Server		✓				✓				✓
	Agile PLM BI 3.0 RPD		✓				✓				✓
	OBIEE 10.1.3.3.3 Presentation Server		✓				✓				✓
	OC4J or Tomcat/Apache		✓				✓				✓
	Agile PLM BI 3.0 Web Catalog		✓				✓				✓
Internet Explorer or Firefox browser		✓				✓				✓	

System Requirements

Software Requirements

The following are the software requirements for Agile PLM BI 3.0 installation:

Software Component	Name	Version
Browsers	Internet Explorer	7.0
	Firefox	2.0
Oracle Business Intelligence – BI server and Presentation services	Enterprise Edition	10.1.3.4.0
Database server	Oracle Enterprise Edition	10g R2
Data Integration Component	Oracle Data Integrator	10.1.3.4.2
Software Development Package	Java Development Kit	1.5

Note Refer OBIEE Installation Guide for Install Options specific to different various Web servers. See also: [Certified Platform](#)

Agile PLM BI 3.0 is functional on the following Operating systems:

- Microsoft Windows Server 2003
- Red Hat Linux 4.0
- Sun Solaris 10

Hardware Requirements

When you choose hardware configuration, it is important to consider details such as the total number of users, the number of concurrent users, the size of your database, the number of Engineering Change Orders processed per day, and the number of transactions in the data base.

The following are the minimum hardware requirements for the Database Server that hosts Data Mart Database schema and BI Database Schema:

Environment	CPU	RAM	Minimum Disk Space
Development (DEV)	2	4 GB	4 times Agile PLM DB size
Testing or Staging (STAGE)	2	4 GB	
Production (PROD)	4	8 GB	

System Resources	Customer Size			
	2	4	4 – 8	8 ++
Disk Space	24 GB	24 GB	32 GB	64 GB
Memory (Windows)	2 GB	4 GB	6 GB	8 GB
Memory (Linux)	4 GB	4 GB	6 GB	8 GB
Memory (Windows)	4 GB	4 GB	6 GB	8 GB

Important

- Ensure at least 4GB of disk space is available on the computer server before you begin the installation of Agile PLM BI 3.0
- Do not install any other software on the systems that have Agile PLM BI.
- Do not include any other data base schema on the computer systems that have Agile PLM BI database and schema.
- Do not use Agile Host server as the Primary Domain Controller (PDC) or Dynamic Host Configuration Protocol (DHCP) server.
- Do not enable Disk Compression on Agile computer systems.

Note We recommend that the computer systems on which you install the PLM BI, Agile PLM Data Mart and Oracle Database, have at least two physical drives or two disk partitions. This enables you to install the Operating system and the Agile/Oracle installation components on separate drives/partitions, thus ensuring better performance.

Certified Platforms

The certified versions of the various software components are as follows:

Software Component	Version
Agile PLM Releases	9.2.2
	9.2.2.1
	9.2.2.2
	9.2.2.3
	9.2.2.4
Database and Operating System	Oracle 10g on Windows 2003
	Solaris 10
	Red Hat Linux 4

Oracle Data Integrator (ODI) 10.1.3.4.0	Windows 2003 Solaris 10 Red Hat Linux 4 Note Refer ODI platform document for supported environments.
Oracle Business Intelligence Enterprise Edition (OBIEE) 10.1.3.3.3	Windows 2003 Red Hat Linux 4 Note Refer OBIEE platform document for supported environments.

Installation

The Agile PLM BI 3.0 Installer prompts for the following necessary installation details:

- OBIEE Configuration parameters
- PLM Data Mart DB Schema Information
- PLM Data Layer (MDS) Schema Information

Pre-Installation Checklist

We recommend you to verify the prerequisites for the installation of PLM BI 3.0 application using the following pre-installation verification checklist:

#	Check point	Done
1	Ensure that the OC4J server is 'On'.	
2	Ensure that the database listener is 'On'	
3	Install and Configure OBIEE	
4	Install and Configure PLM Data Mart 3.0	
5	Install PLM Data Mart Hot Fix 3.0.0.0.1	
6	Ensure that the PLM BI 3.0 Database installation uses the existing Master and Work Repository schema	
7	Ensure that the PLM BI 3.0 Database installation has its own schema to publish data	

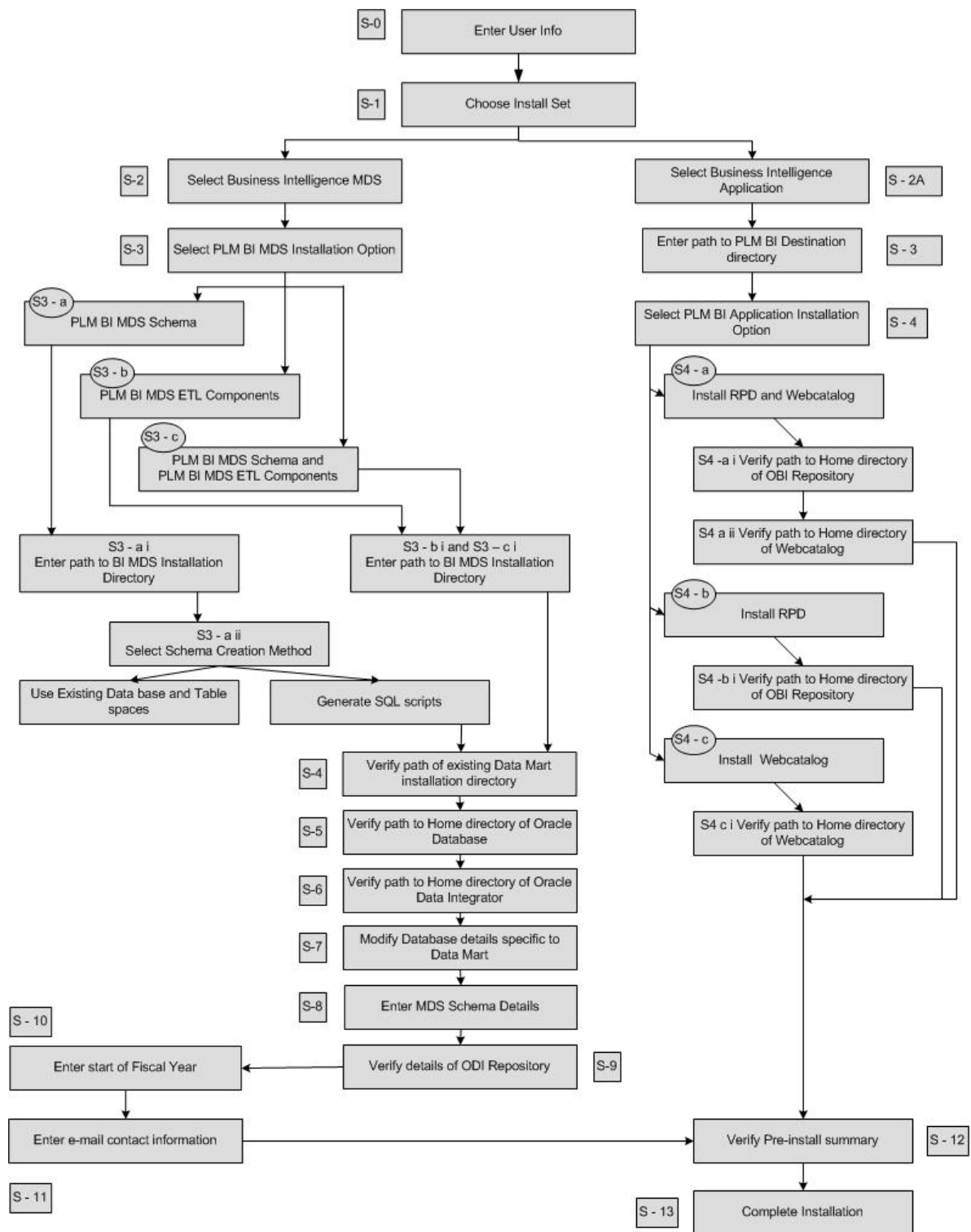
It is useful to collate the following information before you begin the installation:

- Deployment Configuration specification

Note Refer section on Deployment Configuration for more information.

- Start date of the Fiscal year for your business
- Name of the email server specific to your email configuration
- Location of the ODI Schema
- Location of the RDBMS
- Names of the table spaces
- Name of the OBIEE Repository Home
- Name of the OBIEE Web Catalog

Installation Process



Installation on Windows

The installation of Agile PLM BI 3.0 on Windows Operating System involves the following phases:

1. Installation of MDS module
2. Installation of PLM BI Application module

You need to execute the Windows\BISetup.exe file twice to complete both the phases of the product installation. The installer.exe launches an Installation wizard powered by 'InstallAnywhere' to install Agile PLM BI 3.0. The Wizard has buttons such as Next, Previous, and Cancel for Navigation.

Installer Usage Options

The installer usage options selected during the installation of MDS needs to be the same as those selected during the installation of PLM Data Mart.

Example:

During the installation of PLM Data Mart, if you had created the DB first followed by the execution of ELT, then you need to choose the same sequence of options during the installation of MDS. You cannot select the option that installs the DB and executes ELT in a single step for the MDS installation.

Installation of MDS Module

To install MDS module:

1. Double-click Windows\BISetup.exe in the list of files available as part of the Installer kit.
2. Follow the S - 2 path in the Installation process flow diagram.

Fields in MDS installation

The various fields in the wizard screens in the order of the installation steps are as follows:

Step	Field/Label	Type	Description
S - 2	Business Intelligence MDS	Button	Select this option to install ETL and MDS in PLM BI MDS module.

Step	Field/Label	Type	Description
S3 - a	Install schema	Option button	Select this option to install MDS schema

S3 - a i	Business Intelligence MDS install directory	Text	Enter the path to the BI MDS install directory. Alternately, Click Choose to navigate to the folder in which you want to install the MDS. Note Click Restore Default to reset the path.
S3 - a ii	Use existing database and table space Generate SQL scripts	Option buttons	Select Use existing database and table space to create MDS schema using the existing database and table spaces. Select 'Generate SQL scripts' to manually create BI schema, DDL, and procedures.
S3 - b	Install ETL components	Option button	Select this option to install the ETL components
S3 - b i	Business Intelligence MDS install directory	Text	Enter the path to the BI MDS install directory. Alternately, Click Choose to select the folder in which you want to install the MDS. Note Click Restore Default to reset the path.
S3 - c	Install ETL and schema components in the same environment	Option button	Select this option to install both the MDS schema and ETL components
S3 - c i	Business Intelligence MDS install directory	Text	Enter the path to the BI MDS install directory. Alternately, Click Choose to select the folder in which you want to install the MDS. Note Click Restore Default to reset the path.

Step	Field/Label	Type	Description
S - 4	Existing Data Mart Install Directory	Text	The path to the existing Data Mart Install directory appears as default value in this field. Note This field is modifiable.

Step	Field/Label	Type	Description
S - 5	Oracle Home Directory	Text	The path to the Home Directory of the Oracle Database appears as default value in this field. Note: You need not modify this path unless you want to use a different Oracle Database Installation.

Step	Field/Label	Type	Description
S - 6	Oracle Data Integrator Home Directory	Text	The path to the Home Directory of the Oracle Data Integrator appears as default value in this field. Note: This field is modifiable.

Step	Field/Label	Type	Description
S - 7	Host Name	Text fields Note All these auto-populated fields take their values from the Data Mart installation specifications. Modify these fields if you had made modifications to the settings in the database. Example: Modify the password if you had changed the system password in the database.	Name of the Database Host.
	Database Port Number		Number which identifies the port used to connect to the database
	Database name (SID)		String which identifies the database.
	System User Password		This is the SYSTEM User Password for the SID. This login enables you to grant user permissions.
	Sys User Password		This is the SYS user password for the SID. SYS is the Supreme user with rights to grant user permissions to all users.
	Data Mart schema User Name		User Name of the Data Mart schema.
	Data Mart schema User password		Password that corresponds to the Data Mart User Name.

Step	Field Label	Type	Description
S - 8	BI MDS Schema Details		Authentication details specific to BI MDS schema. These are auto-populated fields.
	BI MDS Schema User Name	Text	User name which authenticates access to the BI MDS schema. The default value is PLMBIMDS.
	BI MDS Schema Password	Text	Password which corresponds to the BI MDS Schema User Name. The default value is PLMBIMDS.
	BI MDS Table Space Details		Table space details specific to BI MDS.
	BI MDS Data Table Space	Text	Enter the name of the BI MDS Data Table Space.
	BI MDS Indexes Table Space	Text	Enter the name of the BI MDS Indexes Table Space.

Step	Field Label	Type	Description
S - 9	Oracle DataIntegrator Schema Details:		Verify the details specific to the Master Repository and Work Repository databases for ODI schema. Note : All these fields are auto-populated.
	Master Repository Database User Name	Text	Verify the User Name of the Master Repository Database. The default value is ODIMASTER.
	Master Repository Database Password	Text	Verify the Password of the Master Repository Database. The default value is ODIMASTER.
	Work Repository Database User Name	Text	Verify the User Name of the Work Repository Database. The default value is ODIWORK.
	Work Repository Database Password	Text	Verify the Password of the Work Repository Database. The default value is ODIWORK.
	ODI Data Integrator Work Repository Details:		Modify the Work Repository details specific to ODI

	ODI Work Repository Name	Text	Verify the Name of the ODI Work Repository. The default value is WORKREP.
--	--------------------------	------	---

Step	Field Label	Type	Description
S - 10	Start of the Fiscal Year	Date in the format MM-DD-YYYY	Enter the date on which the Fiscal year begins in your Organization.

Step	Field Label	Type	Description
S11	Email ID	Text	Enter the Email ID in which you want to receive the ETL notifications after every ETL execution. Note Use comma (,) to delimit more than one Email address in this field.
	Mail Server Name	Text	Enter the Email server which routes your emails to and from the given Email addresses.

Installation of PLM BI Application Module

To install PLM BI module:

1. Double-click Windows\BISetup.exe in the list of files available as part of the Installer kit.
2. Follow the S -2A path in the Installation process flow diagram.

Fields in PLM BI Application module installation:

The various fields in the wizard screens in the order of the installation steps are as follows:

Step	Field Label	Type	Description
S - 2A	Business Intelligence Application	Button	Select this button to install models and web catalog in the BI module of PLM BI 3.0.

Step	Field Label	Type	Description
S -3	Business Intelligence Application Temp Directory	Text	Enter or modify the path to the folder in which you want to install the Business Intelligence application. Default value is C:\PLMBI3.

Step	Field Label	Type	Description
S4 - a	Install RPD and WebCatalog	Option button	Select this option to install RPD and WebCatalog components.
S4 - a i	OBI Repository Home Directory	Text	Enter the path to the Home Directory of the OBI Repository. Alternately, Click Choose to navigate to the folder which is the Home Directory of the OBI Repository. Note C:\OBIEE\Oracle BI\server Note: Click Restore Default to reset the path.
S4 - a ii	OBI Web Catalog Home Directory	Text	Enter the path to the Home Directory of the OBI Web Catalog. Alternately, Click Choose to navigate to the folder which is the Home Directory of the OBI Webcatalog. Example: C:\OBIEE\Oracle BIData\web Note Click Restore Default to reset the path.
S4 - b	Install RPD	Option button	Select this option to install RPD component.

S4 – b i	OBI Repository Home Directory	Text	Enter the path to the Home Directory of the OBI Repository. Alternately, Click Choose to navigate to the folder which is the Home Directory of the OBI Repository. Example: C:\OBIEE\Oracle BI\server Note Click Restore Default to reset the path.
S4 - c	Install Web Catalog	Option button	Select this option to install Web Catalog component.
S4 – c i	OBI Web Catalog Home Directory	Text	Enter the path to the Home Directory of the OBI Web Catalog. Alternately, Click Choose to navigate to the folder which is the Home Directory of the OBI Web Catalog. Example : C:\OBIEE\Oracle BIData\web Note Click Restore Default to reset the path.

Installation on Red Hat Linux and Sun Solaris

The Prerequisites to install Agile PLM BI 3.0 on Linux are same as those on Windows.

The Linux-specific installer is packaged as BISetup.bin file.

To execute the installer:

1. Provide full (Read, Write, Execute) permissions to the BISetup.bin file.
2. Navigate to the path where the file exists, in your Linux terminal.
3. Enter ./BISetup.bin on your Linux prompt.

The installation wizard appears. The steps for the installation of Agile PLM BI 3.0 in Linux are same as those in Windows. Refer the section [Installation on Windows](#) for details.

Note We recommend that you install Agile PLM BI 3.0 in Linux as a non-root user.

The procedure on the installation of Agile PLM BI 3.0 on Red Hat Linux also applies to Sun Solaris.

Note Install American English Unicode (en_US.UTF-8) Full Locale package in Solaris system to ensure successful installation and avail the complete functionality of PLM BI application.

Post-Installation Guidelines

- Verify if the installation base directory, for example, C:\PLM BI3.0 has the following sub-folders:

Name of the Folder	Description
\Bin	Configuration tools and Miscellaneous entities
\Common	Common Components such as PL/SQL logging libraries
\Config	All PLM Business Intelligence configurations including ANT install configuration file
\Install	Installation components
\Lib	Dependent libraries that the Data Mart uses
\Logs	Centralized location for logs specific to BI
\Schema	SQL scripts to <ul style="list-style-type: none"> ▫ Create, update or delete schema ▫ Create pre and post-populate scripts
\BI	OBI Model, Web Catalog and any required configuration template files
\Uninstaller	Executable files to install the software. This folder also includes executable file to remove any installed Hot Fix or Service Pack for Analytics.

- Ensure that you receive the following message regarding the MDS-ETL execution in your Email account before you access the BI Interactive Dashboards:

```

From: PLM_BI_MDS@oracle.com [mailto:PLM_BI_MDS@oracle.com]
Sent: Wednesday, August 06, 2008 3:06 PM
To: plmbiadmin@oracle.com
Subject: Fwd: MDS ETL [CDC @ Host:AGILELABS | DB Name:PLMDM | DB User:PLMBIMDS3 ] - SUCCESS.

--- Original Message ---
PLM MDS (CDC) Load Process Completed Successfully.

Please refer to Oracle Data Integrator's Operator for log details

This is auto-generated from
[ Host:AGILELABS ] | [ DB Name:PLMDM ] | [ DB User:PLMBIMDS3 ]

```

- Ensure that the TNS Service name is PLMA.

Note If the schema name is different, then you can select use any TNS service name other than PLMA. The Data Source Name in the ODBC Configuration needs to be the same as that of the selected Service name.

- We recommend you to focus on performance tuning before you execute the ETL.

The following are the performance tuning measures:

- Check the DB for enough Data base sessions (>500) to enable a perfect execution of the ETL in ODI.

To check the DB session and process parameters:

1. Login using `sys/sysdba` in command prompt using SQLPlus
2. Enter `SHOW PARAMETER SESSIONS SHOW PARAMETER PROCESSES`
3. Enter `'Alter system set processes=1000 scope=spfile`

Alternately

Enter `'Alter system set processes=1000 scope=both`

4. Restart the instance.

- Modify the Heap size in ODI to enhance the ETL performance.

To increase the Heap size to enhance the ETL performance:

- a. Navigate to `<ODI Home>/ Bin` folder
- b. Modify the Set `ODI_INIT_HEAP=32m` (default) to Set `ODI_MAX_HEAP=256m` in the `ODIPARAMS.BAT` file

Note Set the values according to the memory space available in the local machine. For example, if you have 2 GB of available memory, you can set the `ODI_INIT_HEAP` to 512m and `ODI_MAX_HEAP` to 1024m. For more information refer ODI Documentation on [Oracle Technology Network](#).

- Ensure that you start the following services in the same order:
 - OC4J or IIS
 - Oracle Java Host
 - Oracle BI Server
 - Oracle Presentation Server
- Ensure appropriate Connection Pool settings in OBIEE Administrator: The following are the steps to ensure that the connection pool settings are appropriate:
 1. Login to OBIEE Administration tool
 2. Verify in the Physical layer that TNSNAME is PLMA and schema username/password is PLMBIMDS/PLMBIMDS.
 3. Edit the Data Source Name in the Connection Pool Window to PLMA if the TNSNAME is not PLMA and the Username/Password is PLMBIMDS/PLMBIMDS.
 4. Modify Username/Password accordingly if it is not default, PLMBIMDS/PLMBIMDS
- Ensure that you set the `ODITimeOut` Parameter to 180 seconds. Use File > User Parameters in the ODI Designer Tool Menu Bar to modify this value. The default value is 30 seconds.

Log Files

Log files are located in the Logs folder within PLMBI Install Home Folder. These log files are useful to troubleshoot installation issues. The following table lists the various log files and descriptions:

Name of the Log file	Description
BIInstall.log	Track real-time Installation update and status.
UsersCreation.log	MDS user creation status and grants details.
MDS_COMMENT.log	Create comments for tables and columns.
MDS_DDL.log	Tables and index creation status.
MDS_PROCS.log	Procedures and functions creation status.
MDS_SD.log	Status for SID Data insert in following tables: BI Data Dictionary, Bridge Control table, MDS list_dim_control table and flag_d table.
ODM_USER_GRANTS.log	Status for granting privilege to the ODM (DataMart) schema for MDS schema user.
WorkSchemaUpd4BI.log	Status for snp_subscriber table which internally inserts the data of J\$tables.
LoadParameter4BI.log	Status for parameter details (such as mail id).

Executing ETL

After the BI Installation is complete, you need to execute Data integration task using ODI Operator to load data into MDS from Agile PLM source database.

Note If you want to see the status of all the tasks that are under execution, you need to increase the Operator Display Limit to 1000 (the default value is 100). To do so, in ODI Operator, go to File Menu > User parameter > Set operator Display limit and change the value.

To execute ETL from ODI, follow these steps:

1. Launch ODI Operator and login using authentication details for the ODI session created during the Data Mart installation.
2. The username and password will populate automatically. Click OK.
3. Click Scenarios tab. You will see all the components listed in the Left Frame.
4. Right-click on MDS_ETL_LOAD Version 001 component and select Execute. A *Variables* window appears.

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

5. Select MDS as Context.
6. Click **OK**. A *Sessions Started* window appears.
7. Click OK. The ETL process begins.

Note If you install DataMart and MDS together, then you need an ODI login to execute ETL. Refer the Data Mart Set up Guide for the procedure to create an ODI Login.

Execute ETL from Command Prompt

To execute ETL from command prompt, follow these steps:

1. In Windows, open a command window
2. Change directory to go to the bin folder in your Data Mart Home Directory, for example, d:\PLMdatamart\bin
3. Enter the following command line

```
startdm MDS_ETL_LOAD 001 PLMDM
```

where

startdm is the batchfile 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.

To view the status of ETL process:

1. Launch ODI Operator and select login, which is Repository Name
2. The username and password will populate automatically. Click OK.
3. In the Sessions List tab, select All Executions in the left frame which shows all running tasks.

Alternately,

In the Hierarchical Sessions tab, select Status or All Executions in the left frame to check overall progress.

Note 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>

Uninstall Product

The uninstaller application is available in the Uninstall folder within the installation base directory for Windows installer.

Example: C:\PLMBI3.0\Uninstall

We recommend you to create a copy of the folder as a backup, before you begin the un-installation of the application.

Double-click on the file named Uninstall PLM Business Intelligence.exe to uninstall the PLM BI 3.0 application.

Note If the install folder does not get deleted automatically after you uninstall the application, you need to manually delete the folder.

Troubleshooting

Issue 1

I use Windows XP operating system. I get a warning that states Unsupported Operating System after I choose my installation module in the wizard. There are options to quit or continue the installation. If I continue the installation what is the impact?

Cause:

You are running the installer on a computer that is not a Server. This warning indicates that Oracle does not support any issues that might come up after the installation of the software on a desktop at work or a PC used for software demonstrations.

Action:

There are no known adverse impacts if you continue with the installation. This warning does not appear if you install PLM BI on a Server.

You can choose to quit the installation if you do not want to install the application on your work desktop or Home PC. You can also choose to continue with the installation.

Issue 2

When I run ETL, ODI_INT_CREATE_DBLINK task displays a connection identifier error message.

Cause:

The TNSNAMES.ORA file does not have the correct information that enables connection to the source database.

Action:

Add TNSNAME entry in the target DB which points to the source DB, before you run the ETL.

If the DB SID name of the source and target DB are different (Example: Source SID = AGILE9 and Target SID = PLMDM), then modify the TNS Service name as AGILE9 in the **tnsname.ora** file.

If the DB SID name of the source and target DB are the same (Example: Source SID = AGILE9 and Target SID = AGILE9)

Step 1:

Modify the TNS entry as follows:

AGILE9_LAB1 =

(DESCRIPTION =

(ADDRESS_LIST =

(ADDRESS = (PROTOCOL = TCP)(HOST = LAB1)(PORT = 1521))

```

)
(CONNECT_DATA =
(SERVICE_NAME = AGILE9)
)
)

```

Step 2:

Start > Oracle > Oracle Data Integrator > Topology Manager > Physical Connections>Technologies>Oracle>SRC_CONN_PHYSICAL.

Step 3:

Replace the added TNSNAME (AGILE9_LAB1) in the DB link column.

Note This step enables you to eliminate DBLINK errors.

Issue 3

My Database server and ODI/ETL systems are in two different domains. When I run ETL, the ODI_INT_CREATE_DBLINK scenario returns the following message:

ORA-12638: Credential retrieval failed. Why?

Cause:

The source DB and target DB are in different domains.

Action:**Step1:**

Modify the SID.HOSTNAME in the TNSNAME entry to reflect the domain name.

Step 2:

Start > Oracle > Oracle Data Integrator > Topology Manager > Physical Connections>Technologies>Oracle>SRC_CONN_PHYSICAL.

Step 3:

Replace the added TNSNAME (AGILE9.ALAB01) in the DB link column.

Note This step enables you to eliminate DBLINK errors.

To verify DBLINK:

Execute the scenario ODI_INT_CREATE_DBLINK from ODI operator in ODI.

If the scenario fails, the following message appears again:

Link AGILE9.ALAB01 error: ORA-12638: Credential retrieval failed

To resolve this issue:

1. Navigate to %oracle_home%\network\admin directory
2. Modify the value of SQLNET.AUTHENTICATION_SERVICES in sqlnet.ora file as follows:
 - Original Entry - SQLNET.AUTHENTICATION_SERVICES= (NTS)
 - Modified Entry - SQLNET.AUTHENTICATION_SERVICES= (NONE)
3. Restart the database.
4. Re-execute the scenario ODI_INT_CREATE_DBLINK from ODI operator in ODI.

Issue 4

The PLM BI Installation is unsuccessful. I am unable to update RPD and Web Catalog.

Action:

Ensure that OC4J server is running before you begin the installation.

Issue 5

I completed the installation successfully but when I launch the PLM BI application URL, I get 'Page cannot be displayed' screen.

Action:

Ensure that you have started the following Services and re-launch the PLM BI application again:

- BI Presentation Server
- BI Server
- BI Java Host

In addition, ensure that the OC4J/IIS is 'On'.

Issue 6

When I login to the BI Application, I am unable to view any report. The window displays ODBC Driver errors.

Action:

If either TNSNAMES or MDS schema names or both are not default, re-configure the TNSNAMES.ORA file, CONNECTION POOL details and MDS Schema Name in OBIEE Administrator, as appropriate.

Frequently Asked Questions

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How do I ensure that the graphs in the BI Interactive Dashboards have the latest data?

Refer the post-installation guidelines to ensure that the graphs on your dashboard reflect the latest data.

How much memory space do I need on my system to execute ETL?

Ensure that you have at least 2 GB of available memory space in both DB server and ETL (ODI) systems to execute ETL. For recommendations, refer Hardware Requirements section in this document.

Can I install MDS DB Schema, ETL, and OBIEE application in one system?

You can install ETL components including ODI in the system which has the Data base installation. However, we recommend that you install OBIEE and PLM BI Application components in separate systems for better performance results.

ODI uses JRE 1.4.2. Why do I also need JDK 1.5 on my system?

OBIEE and Web service capabilities mandate the installation of JDK 1.5. Ensure that you set JAVA_HOME to JDK 1.5 after you install the ETL components.

In ODI Operator, I see Analytics_ETL, Datamart_Load, and MDS_ETL_Load in the Scenario tab. Which one should I execute to run the ETL?

- To run both DataMart and MDS ETL execute the Analytics_ETL scenario
- To run DataMart ETL only, execute Datamart_load scenario
- To run MDS ETL only, execute MDS_ETL_load scenario

How do I enable PL/SQL debug mode for ETL in the database level?

Set the DEBUG_MODE column in the ETL_PARAMETER table in PLM MDS Schema to '1' to enable PL/SQL debug mode for ETL in the database level. It is set to ERROR_MODE by default. Contact your DB administrator for this activity.

The log details are available in the following table and view in PLM MDS DB schema:

TLOG (table): This table contains information such as timestamp and ID. This table is appended if the mode is ERROR_MODE. If the mode is DEBUG_MODE, the data in the TLOG table is deleted.

VLOG (view): This is a view created for TLOG table and it concatenates all TLOG information in a single column.

How do I manually set my ETL to run in either full or incremental mode?

Set the value of Full_load column in the ETL_PARAMETER table to 'Y' to set your ETL run in 'Full' mode.

Set the value of Full_load column in the ETL_PARAMETER to 'N' to set your ETL run in 'Incremental' mode.

Contact your DB administrator for this activity.

Note If you make any modification to the PLM Configuration (for example, adding an attribute), we recommend ETL run in 'Full' mode. Further, you can set the Data Mart ETL to run in the 'Incremental' mode for optimum performance.

If I modify the SID and User Name of the database can I continue to use the existing installation of PLM BI?

No. You need to reinstall the application for the changes to take effect.

If I modify the ODM Password after the installation of PLM BI, how do I modify the same in

the existing PLM BI Installation?

To modify the ODM password after the installation of PLM BI:

1. Navigate to the bin directory of the Install folder, <biinstall_home>. Example: D:\PLMBI
2. Double-click on BIEncoder.bat file.
3. Navigate to D:/PLMBI/bin in the Windows command prompt or UNIX prompt.
4. Enter BIEncoder <new password to encrypt>
5. Copy the encrypted password that appears using Ctrl+C keys.
6. Navigate to D:/PLMBI/config/BIDataLayerconfig.properties file.
7. Paste the encrypted password in the ODM_PASSWORD field in the #ODM Schema Details section of the BIDataLayerconfig.properties file.
8. Save the BIDataLayerconfig.properties file.

How do I modify the Mail Server name in the PLM BI Installation?

To modify the name of the Mail Server:

1. Navigate to the BIDataLayerConfig.properties file.
2. Modify the name of the mail server in the MAILSERVER property as MAILSERVER = <New Mail Server Name>
3. Navigate to <biinstall_home>/bin directory in the Windows command prompt or UNIX prompt.
4. Enter LoadParameter4BI.bat

What are the different scenarios of ETL run?

- Analytics_ETL will run both Datamart_load and MDS_ETL.
- MDS_ETL will run MDS only
- DataMart_load will run DataMart only

Note MDS schema depends on DataMart. If DM ran in 'Full' mode, the MDS should also run in 'Full' mode. If DM ran in the 'Incremental' mode, the MDS can be run in 'Full' or 'Incremental' mode. if DM run fails, the MDS ETL does not run.

How do I check if OC4J server is up and running?

In <OBIEE_Home>\oc4j_bij2ee\home\log\rmi.log file, check for log entries similar to the following:

```
08/08/21 13:22:39.325 10.1.3.1.0 Started
08/08/21 13:34:40.392 10.1.3.1.0 Stopped (JVM termination)
```

This entry displays the Start time and End time of the OC4J server.

What are the possible causes for ETL run time failures?

The possible causes for ETL run time failures are as follows:

- Agile PLM Server Upgrades such as HotFix Patches, and unsupported minor/major releases
- Agile PLM Configuration Changes

- MDS Configuration Changes
- Database Server Upgrade
- Database Password Changes
- ODI Server Upgrade or Repository Changes

What are the possible root causes for Reports/Dashboard issues?

The possible causes for BI Reports/Dashboard Issues are:

- Patches or Minor release upgrades to BI 3.0
- OBIEE Server Upgrades
- Reports or Dashboard Configuration Changes
- Database or OBIEE Password Changes
- LDAP Group Changes

How do we localize PLM Business Intelligence application?

Agile PLM Business Intelligence application is built on Oracle Business Intelligence Enterprise Edition that is designed to work in multiple languages. Please refer to Appendix B "Localizing Oracle Business Intelligence Deployments" in Oracle® Business Intelligence Infrastructure Installation and Configuration Guide document.

The externalize strings utility in the BI Administrator displays the strings (names and descriptions) used specifically in the PLM Quality Presentation catalogs. Please note that an additional effort is required to translate them to the desired language before you can view the localized version of the application. Contact Oracle Support for queries on the same.

What are the maintenance requirements?

We recommend you to create backup copies of the MDS schema and ODI repositories (Master and Work Repository) regularly.

What are the possible causes of failure in installation?

The possible causes of installation failure are:

- Failure in the Import of ODI packages during installation
- Drop in DB Connections
- Out-of-space errors in DB Table spaces