

Handling Errors in ODI and New Features

February 25, 2011 8:30 – 9:10 AM

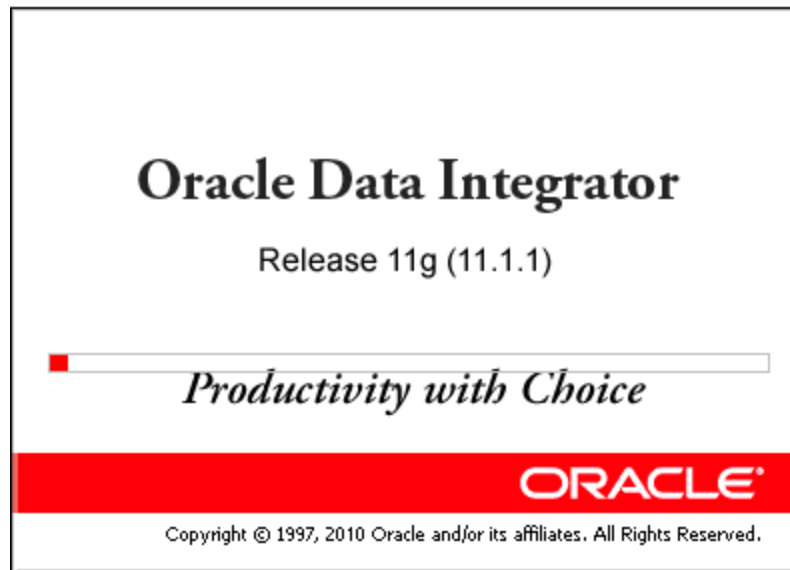
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Introduction to ODI

Architecture

Installation

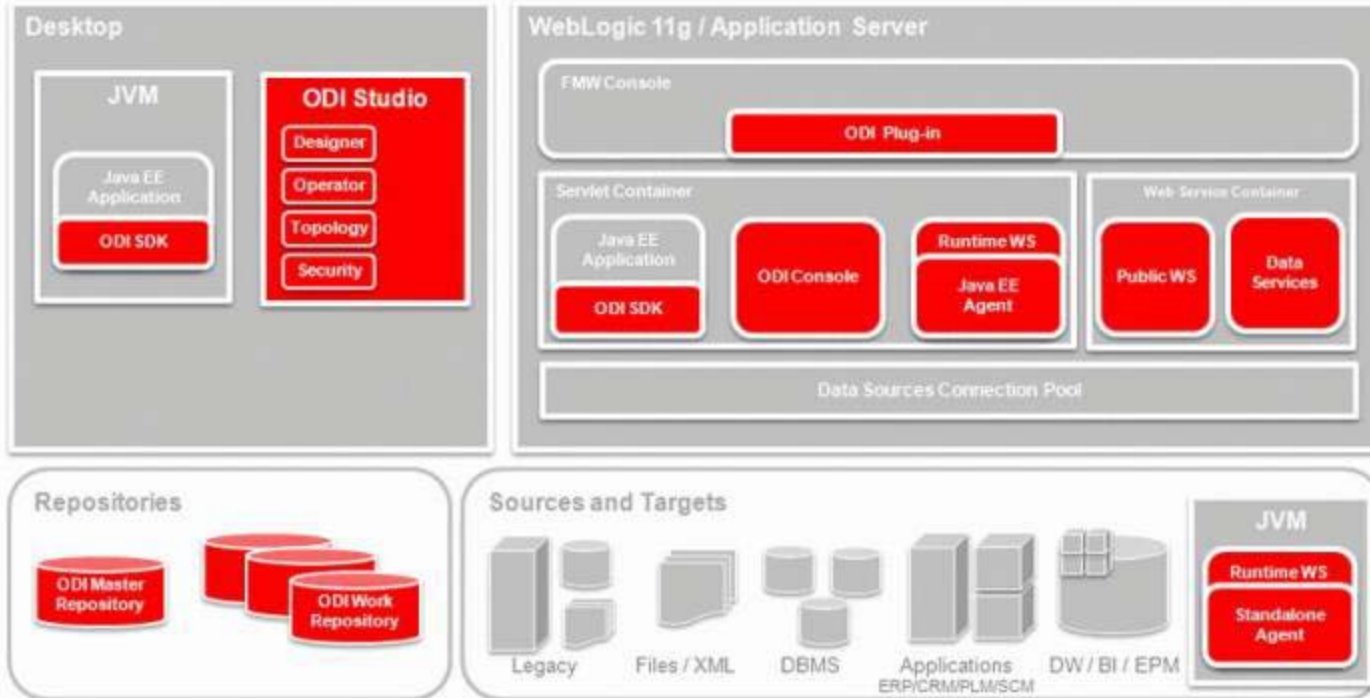
ODI 11g New Features

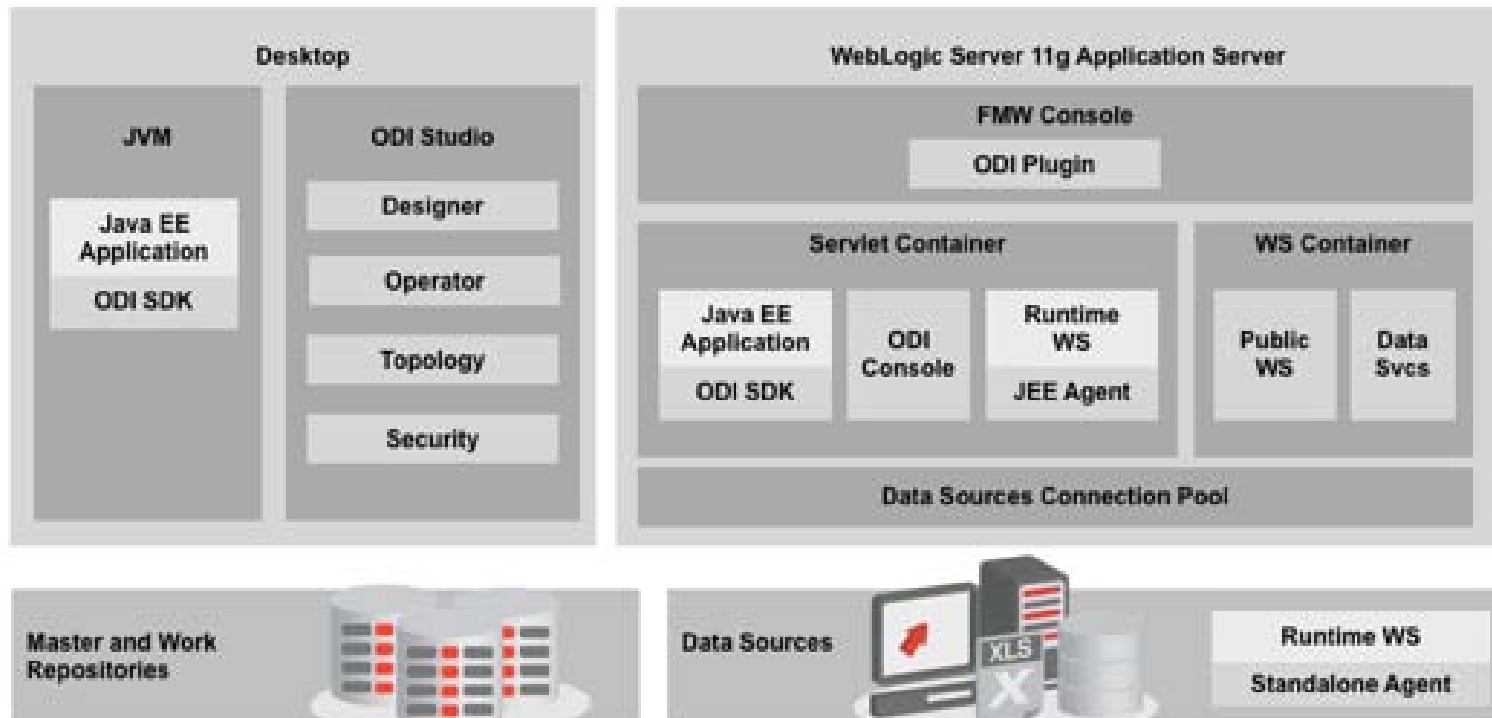
Error Handling

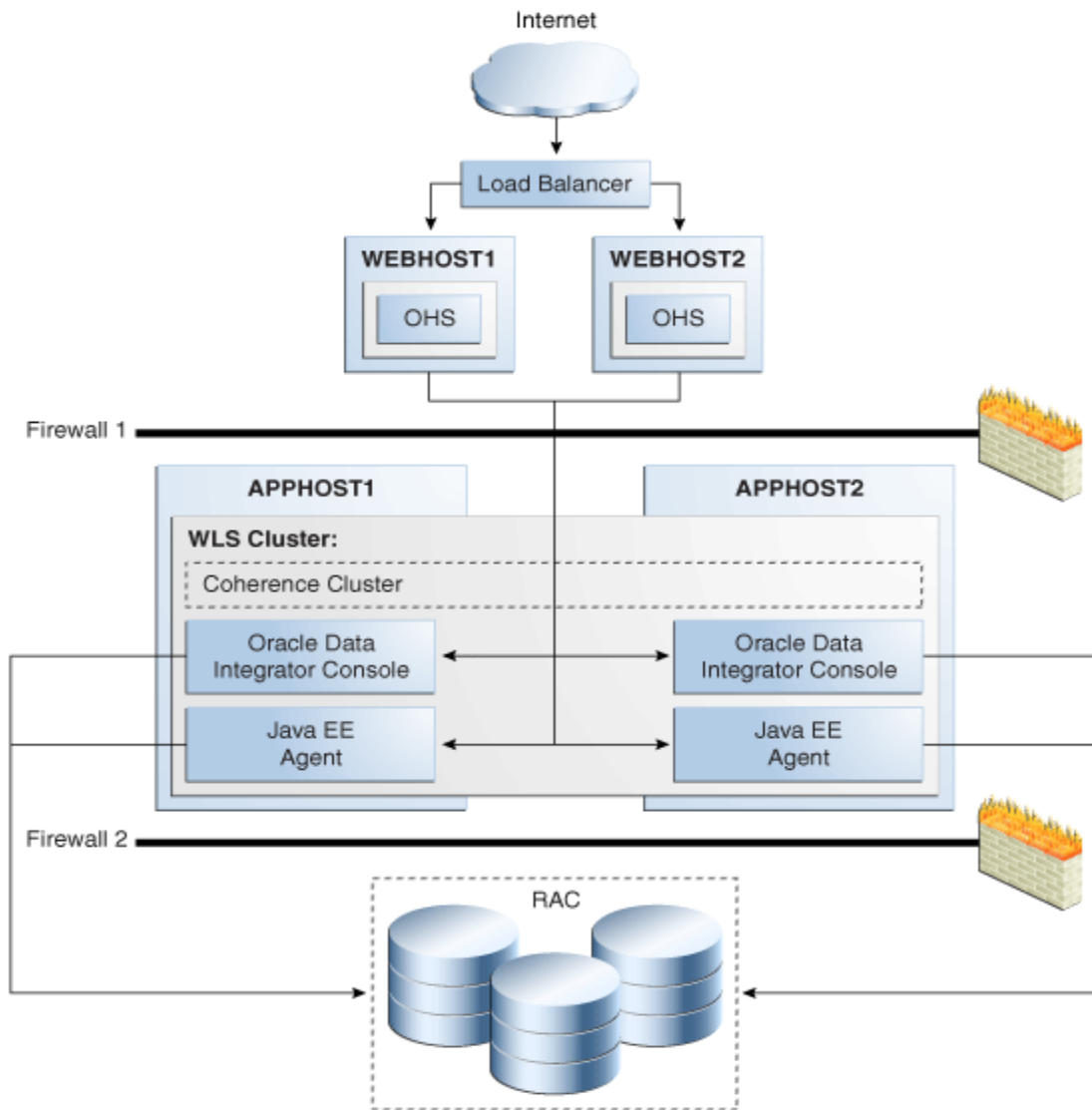
Q&A



- **Oracle Data Integrator**
 - ❖ A widely used data integration software product
 - ❖ Unlike other ETL tools it is based on unique E-LT architecture
 - ❖ It provides unified infrastructure to streamline data and application Integration projects.
 - ❖ Simpler development and maintenance







- ❖ After reviewing the server requirements and certifications install the database.
- ❖ JDK 32bit vs. 64bit

Cannot mix components using a 32-bit JVM with those using a 64 bit JVM

- ❖ Create ODI repository using RCU (Repository Creation Utility)

RCU supports Oracle, Microsoft SQL Server and IBM DB2

Repository Creation Utility - Step 3 of 7 : Select Components

Select Components

ORACLE FUSION MIDDLEWARE 11g

Welcome

Create Repository

Database Connection Details

Select Components

Schema Passwords

Map Tablespaces

Summary

Completion Summary

A Prefix groups the components associated with one deployment.

Select an existing Prefix

Create a new Prefix

Prefix can contain only alpha-numeric characters. Prefix should not start with a number and should not contain any special characters.

Component	Schema Owner
<input type="checkbox"/> Oracle AS Repository Components	
<input checked="" type="checkbox"/> AS Common Schemas	
<input checked="" type="checkbox"/> Identity Management	
<input checked="" type="checkbox"/> ECM_SUITE	
<input checked="" type="checkbox"/> Oracle Data Integrator	
<input checked="" type="checkbox"/> Master and Work Repository	DEV1_ODI_REPO
<input type="checkbox"/> BIFOUNDATION	
<input checked="" type="checkbox"/> WebLogic Communication Services	
<input checked="" type="checkbox"/> SOA and BPM Infrastructure	
<input checked="" type="checkbox"/> Webcenter Suite	
<input checked="" type="checkbox"/> Portal and BI	
<input checked="" type="checkbox"/> Enterprise Performance Management	

Messages:

Help < Back Next > Finish Cancel

Repository Creation Utility - Step 5 of 8 : Custom Variables

Custom Variables

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Enter value for the following custom variables.

Component	Custom Variable	Value
Master and Work Reposi...	Master Repository ID(001)	
	Supervisor Password	*****
	Confirm Supervisor Password	*****
	Work Repository Type: (D) Develo...	
	Work Repository ID(001)	
	Work Repository Name (WORKREP)	
	Work Repository Password	*****
	Confirm Work Repository Password	*****

Messages:

- ❖ Install Oracle Data Integrator

- ✓ Developer Installation

- ✓ Standalone Installation

Required OPMN Configuration for Standalone Agent

- ✓ Java EE Installation

Required Weblogic Server

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 2 of 13

Select Installation Type

ORACLE 11g FUSION MIDDLEWARE

- Welcome
- Select Installation Type**
- Prerequisite Checks
- Installation Location
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details
- Specify Agent Details
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

- Developer Installation
 - ODI Studio (with local agent)
 - ODI SDK**
- Standalone Installation
 - ODI Standalone Agent
- Java EE Installation
 - Java EE Agent
 - ODI Console
 - Public Web Service

2550 MB of disk space is required to install the selected components.

Help < Back Next > Finish Cancel

Elapsed Time: 0m 41s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 3 of 13

Prerequisite Checks

Navigation:

- Welcome
- Select Installation Type
- Prerequisite Checks**
- Installation Location
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details
- Specify Agent Details
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

Selection	Check	Progress	Status
<input checked="" type="checkbox"/>	Checking operating system certifi...	100%	✓
<input checked="" type="checkbox"/>	Checking recommended operating...	100%	✓
<input checked="" type="checkbox"/>	Checking kernel parameters	100%	✓
<input checked="" type="checkbox"/>	Checking Recommended glibc ver...	100%	✓
<input checked="" type="checkbox"/>	Checking physical memory	100%	✓

Buttons: [Abort](#) [Retry](#) [Continue](#)

Summary:

- ✓ Checking operating system certification
- ✓ Checking recommended operating system packages
- ✓ Checking kernel parameters
- ✓ Checking Recommended glibc version
- ✓ Checking physical memory

Buttons: [Help](#) [< Back](#) [Next >](#) [Finish](#) [Cancel](#)

Elapsed Time: 1m 16s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 4 of 13

Specify Installation Location

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location**
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details
- Specify Agent Details
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

Oracle Middleware Home:

Oracle Home Directory:

The WebLogic Server must already be installed in the same Middleware Home.

Elapsed Time: 2m 1s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 4 of 14

Specify Installation Location

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location**
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details
- Specify Agent Details
- Security Updates
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

Oracle Home Directory:

The Oracle Home will be created with the given name. This must be an empty directory or an existing Oracle Home location.

Elapsed Time: 1m 41s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 5 of 13

Repository Configuration

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location
- Configure Repositories**
 - Master Repository
 - Supervisor User Details
 - Work Repository Details
 - Specify Agent Details
 - Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

Configure Repositories
Use this option to configure the Oracle Data Integrator Studio and the Standalone Agent with an existing Master and Work repositories pair.

Skip Repository Configuration
Use this option to skip the Oracle Data Integrator Studio, Standalone Agent and Repository configuration. You will need to configure these components manually after the installation.

This option creates a connection to a work repository for the Oracle Data Integrator Studio. It also configures the odiparams file for the Standalone Agent to connect the master repository. The agent definition is declared in the topology and corresponding agent startup scripts and shortcuts are created.
With this configuration, the standalone agent can be started with no additional

Help < Back Next > Finish Cancel

Elapsed Time: 2m 31s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 6 of 13

Master Repository

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location
- Configure Repositories
- Master Repository**
- Supervisor User Details
- Work Repository Details
- Specify Agent Details
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

Database Type:

Database Connect String:

Format: host:port:service_name or host:port:sid
For RAC DB: host1:port1^host2:port2@service_name

Database User Name:

Database Password:

Use Service ID

Provide the Master Repository Schema user name

Help < Back Next > Finish Cancel

Elapsed Time: 4m 51s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 7 of 13

Supervisor User Details

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location
- Configure Repositories
- Master Repository
- Supervisor User Details**
- Work Repository Details
- Specify Agent Details
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

ODI Username:

ODI Password:

Help < Back Next > Finish Cancel

Elapsed Time: 5m 56s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 8 of 13

Specify Work Repository Details

ORACLE 11g
FUSION MIDDLEWARE

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details**
- Specify Agent Details
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

Select Work Repository:

Help < Back Next > Finish Cancel

Elapsed Time: 7m 1s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 9 of 13

Specify Agent Details

ORACLE 11g FUSION MIDDLEWARE

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details
- Specify Agent Details**
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed

Agent Name:

Agent Port:

Agent port must be a number in range 1024-65535 and should not be used by any other process.

Help < Back Next > Finish Cancel

Elapsed Time: 7m 31s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 10 of 13

Installation Summary

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details
- Specify Agent Details
- Installation Summary**
- Installation Progress
- Configuration Progress
- Installation Completed

Install and Configure Oracle Data Integrator

- Directory Details**
 - Middleware Home Location:
 - Oracle Home Location:
 - Repository Configuration Details**
 - Database Type: Oracle
 - Database Connect String:
 - Database User Name: DEV4_ODI_REPO
 - Work Repository Name: WORKREP2
 - Agent Configuration Details**
 - Agent Name: agent007
 - Agent Port: 1028

Save Response File:

Click **Install** to accept this configuration and start the installation.

To change the configuration before starting the installation, select the topic to change in the left pane, or use the **Back** button.

Elapsed Time: 8m 6s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 11 of 13

Installation Progress

ORACLE 11g FUSION MIDDLEWARE

- Configure Repositories
 - Master Repository
 - Supervisor User Details
 - Work Repository Details
 - Specify Agent Details
 - Installation Summary
 - Installation Progress**

Progress: 13%
Setting up ..

Setting Up: Application Server 11g Common Core Component 11.1.1.2.0
 Setting Up: Oracle BPM Management Extension 11.1.1.4.0
 Setting Up: OracleAS JRF 11.1.1.4.0
 Setting Up: Oracle AS Common Toplevel Component 11.1.1.2.0
 Setup Completed

Oracle Fusion Middleware
Extreme Productivity
ORACLE

Help < Back Next > Finish Cancel

Elapsed Time: 8m 41s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 11 of 13

Installation Progress

- Configure Repositories
 - Master Repository
 - Supervisor User Details
 - Work Repository Details
 - Specify Agent Details
 - Installation Summary
 - Installation Progress**

Progress: 13%
Setting up ..

Setting Up: Application Server 11g Common Core Component 11.1.1.4.0
 Setting Up: Oracle BPM Management Extension 11.1.1.4.0
 Setting Up: OracleAS JRF 11.1.1.4.0
 Setting Up: Oracle AS Common Toplevel Component 11.1.1.2.0
 Setup Completed

Oracle Fusion Middleware
Extreme Productivity
ORACLE

Help < Back Next > Finish Cancel

Elapsed Time: 8m 41s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 12 of 13

Configuration Progress

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details
- Specify Agent Details
- Installation Summary
- Installation Progress
- Configuration Progress**
- Installation Completed

Configuration Tools

Name	Progress
<input checked="" type="checkbox"/> ODI Configuration	100%
<input checked="" type="checkbox"/> Configure ODI Studio Login	✓ Success
<input checked="" type="checkbox"/> Declare Agent in the Topology	✓ Success
<input checked="" type="checkbox"/> Create Agent Startup Scripts	✓ Success
<input checked="" type="checkbox"/> Configure Agent Parameters	✓ Success

ODI Configuration

Elapsed Time: 11m 6s

Oracle Fusion Middleware 11g Oracle Data Integrator Installation - Step 13 of 13

Installation Completed

- Welcome
- Select Installation Type
- Prerequisite Checks
- Installation Location
- Configure Repositories
- Master Repository
- Supervisor User Details
- Work Repository Details
- Specify Agent Details
- Installation Summary
- Installation Progress
- Configuration Progress
- Installation Completed**

Install and Configure Oracle Data Integrator

- Directory Details**
 - Middleware Home Location:
 - Oracle Home Location:
- Repository Configuration Details**
 - Database Type: Oracle
 - Database Connect String:
 - Database User Name: DEV4_ODI_REPO
 - Work Repository Name: WORKREP2
- Agent Configuration Details**
 - Agent Name: agent007
 - Agent Port: 1028

Save Installation Configuration:

Installation Completed
Oracle Data Integrator installation and configuration completed successfully.

Elapsed Time: 11m 21s

- **Data integrator client certified on below operating systems with graphical capability.**
 - ❖ Windows 7
Windows XP Professional with SP 3+
Windows 2003 with SP2/R2+
Windows Vista with SP1+
Windows Server 2008 with SP1+
Windows Server 2008 R2 Linux Red Hat EL 4 (UL7+)
 - ❖ Red Hat EL 5 (UL3+)
Oracle Enterprise Linux 4 (UL7+)
Oracle Enterprise Linux 5 (UL3+)
SLES 11 Apple Macintosh MacOS v10.5.2+
 - ❖ IE 7.x
IE 8.x
Firefox 3.5+
Safari 4.x

- ❖ High Availability ,Scalability and Performance E-LT capability
- ❖ Oracle Weblogic Server Integration
- ❖ Runtime Agent
- ❖ Integration with Oracle Enterprise Manager for better management
- ❖ Jdeveloper Based Integrated development environment

- ❖ External Authentication
- ❖ Table partition

■ ODI Sendmail.

This command is quite useful to send mails on errors or success in flow.

- Can be used in ODI packages by drag and drop under in Toolbox.

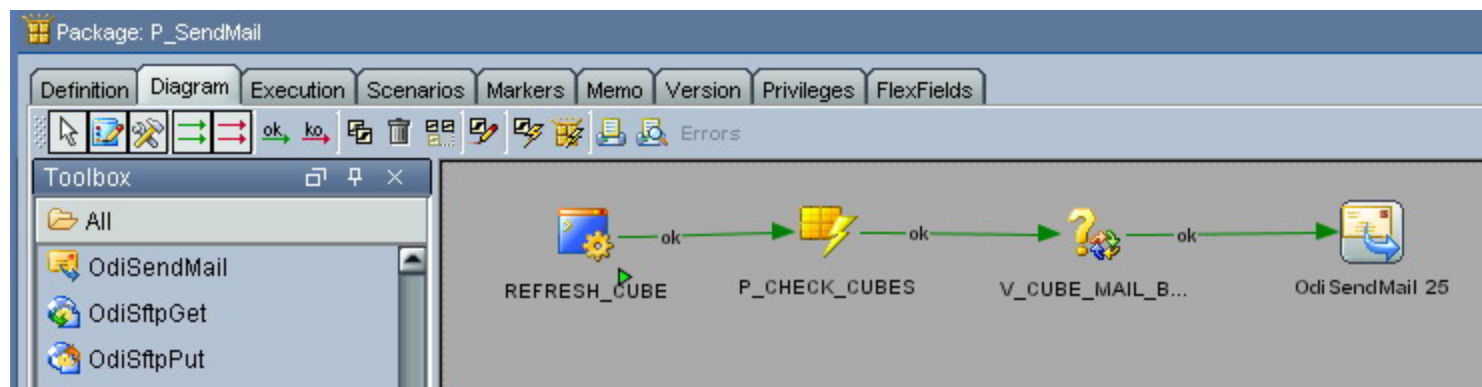
REFRESH_CUBE : A simple procedure that starts the cube refreshment job.

P_CHECK_CUBES : A scenario that checks whether cube is refreshed or not.

Succeeds when cube refresh process finishes successfully.

V_CUBE_MAIL_BODY : Refreshes a variable to be used in mail's body section. Includes a select statement for descriptive usage.

OdiSendMail 25 : Sends the prepared mail.



■ ODI Sendmail - Properties.

Mail Server : SMTP mail server IP address.

From : A valid username that can send mail.

To : A variable or direct mail address (variables) CC : & BCc : Same as 'To'.

Subject : ODI Reference Functions and/or ODI Variables can be used.

Attachment : If there is any file to attach into mail.

Message Body : Body of mail. Can be text including ODI Variable/ODI functions.

Properties

General Command Advanced Memo Version Privileges

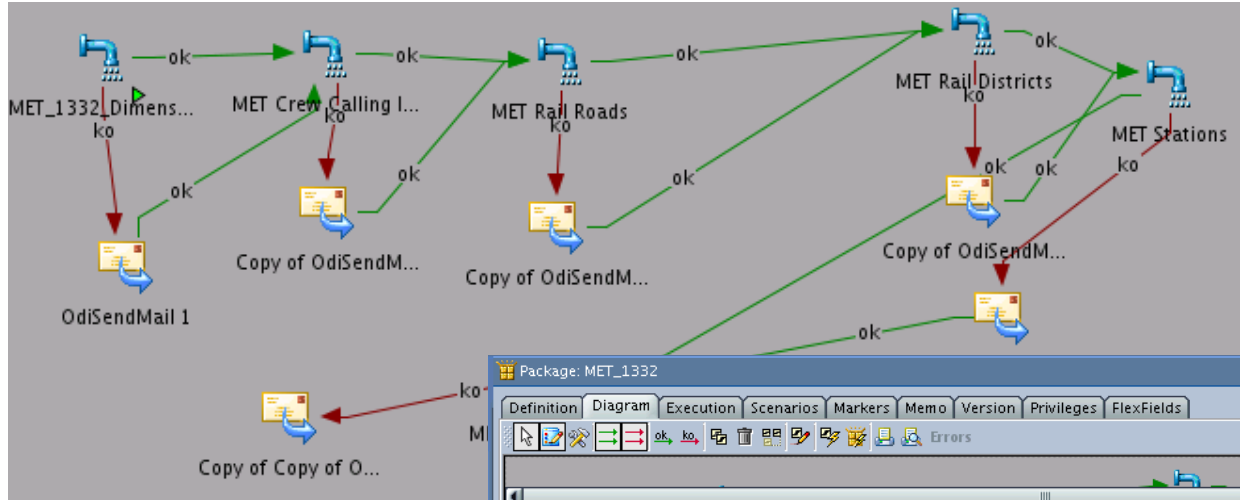
OdiSendMail -SUBJECT (Optional)
Subject of the message.

Step name
OdiSendMail 25

Parameter	Value
Mail Server	10.10.10.10
From	your_name@your_domain.com
To	[#V_ERROR_MAIL_TO]
Cc	[#V_ERROR_MAIL_CC]
BCc	[]
Subject	CUBE (DWH BI) REFRESH (<%=odiRef.getSysDate("dd.MM.yyyy")%>) finished.
Attachment	[]
Message Body	#V_CUBE_MAIL_BODY

ODI Sendmail – Other Examples

- Data integration flow and error handling alerts.



Package: MET_1332

Definition Diagram Execution Scenarios Markers Memo Version Privileges FlexFields

Errors

Properties

General Command Advanced Memo Version Privileges

OdiSendMail
Select a parameter for more information about it.

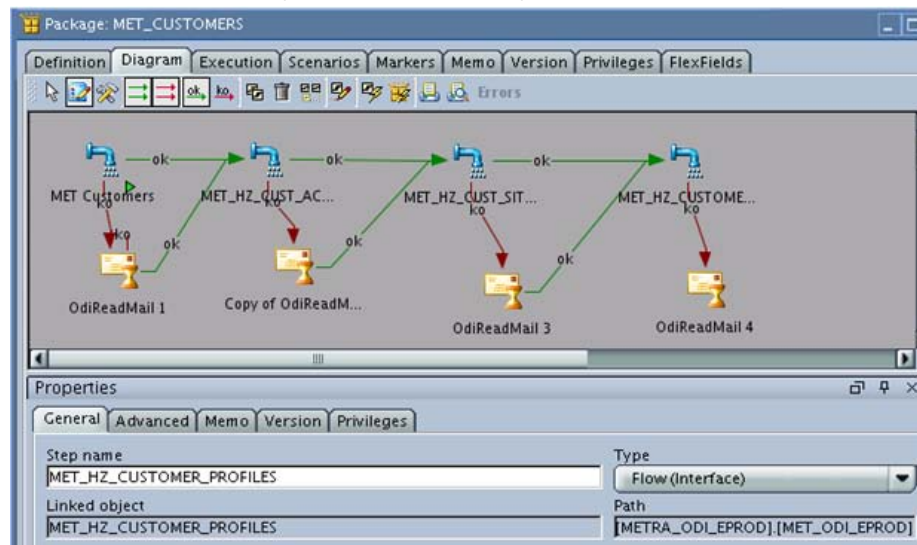
Step name
OdiSendMail 1

Parameter	Value
Mail Server	smtp.metfarr.com
From	OBIEE ODI
To	[akowdle@astcorporation.com, nankem@astcorporation.com]
Cc	[]
Bcc	[]
Subject	
Attachment	[]
Message Body	

OK Cancel Apply Help Execute

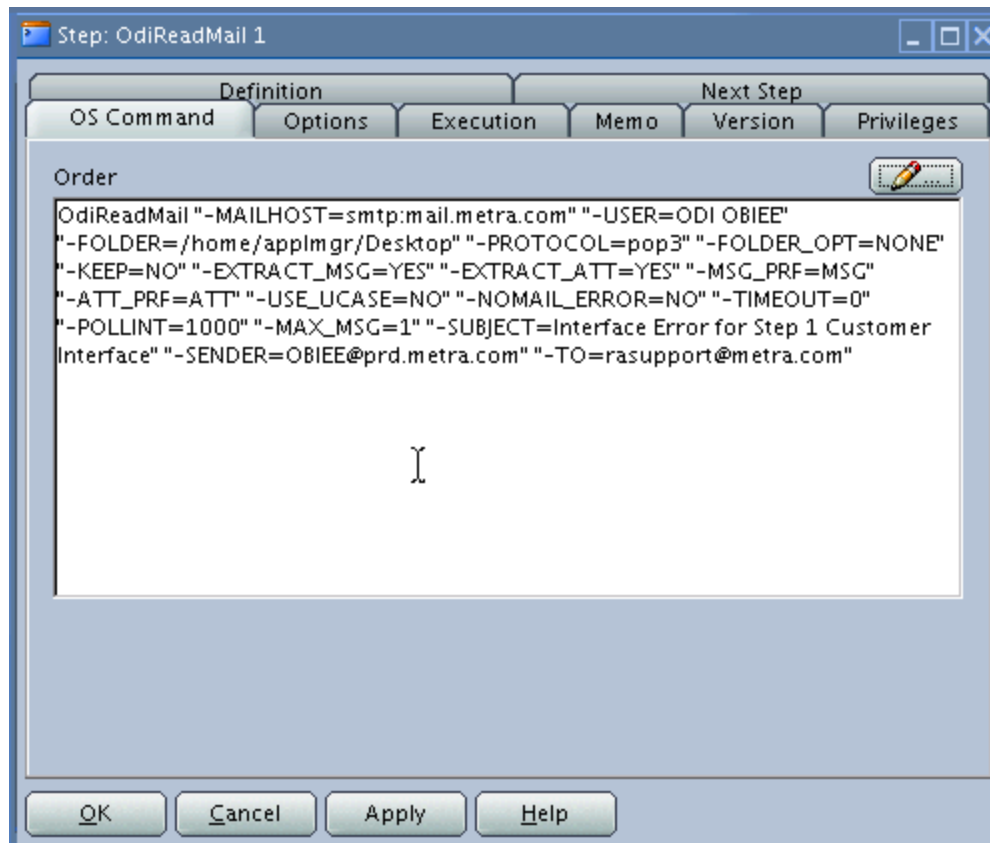
■ ODI Readmail.

- Can be used to read emails as well as their attachments from a POP/IMAP internet mail service.
- Command allows the connection to the mail server MAILHOST using the connection parameters specified by USER and PASS.
- The execution agent is then in waiting mode until MAX_MSG messages are received or the maximum waiting time specified by TIMEOUT is reached.
- The extracted messages must match the filters like those specified by the parameters SUBJECT and SENDER.
- When a message satisfies these criteria, its content as well as its attachment are extracted in a directory specified by the parameter FOLDER.

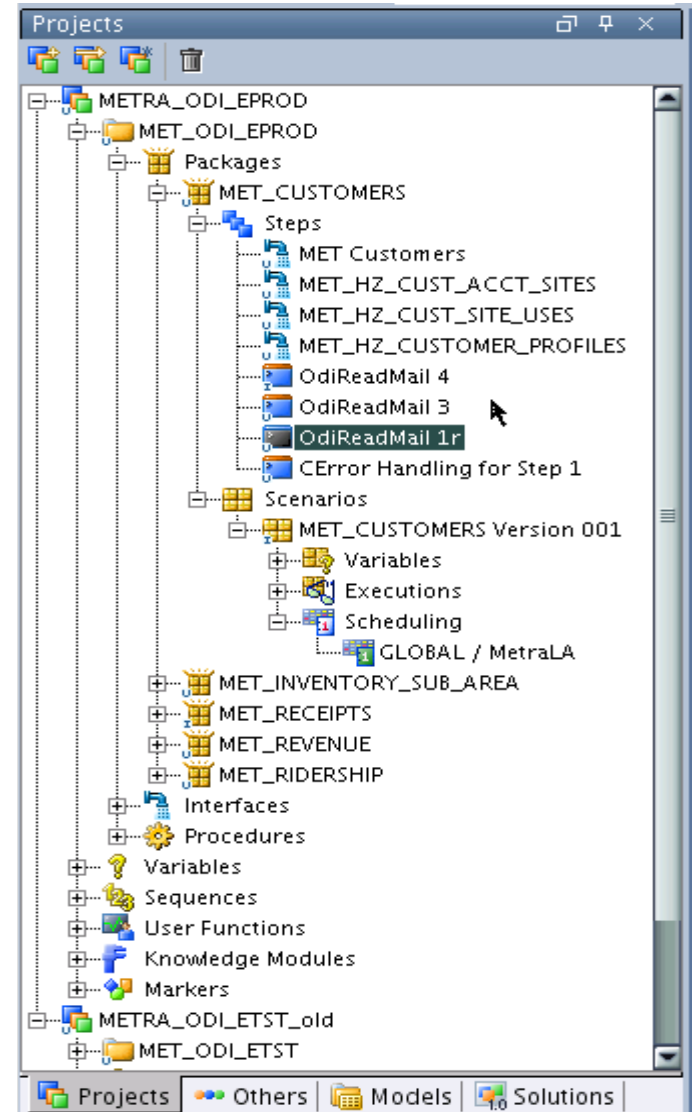
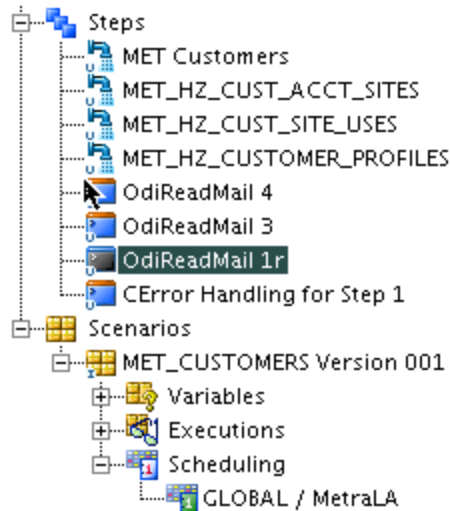
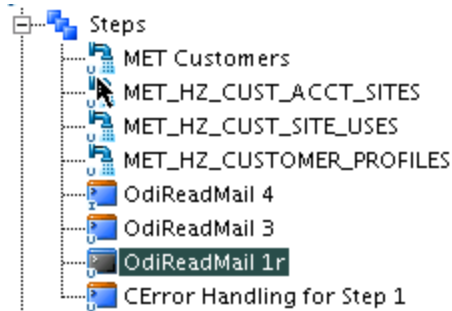


Example:

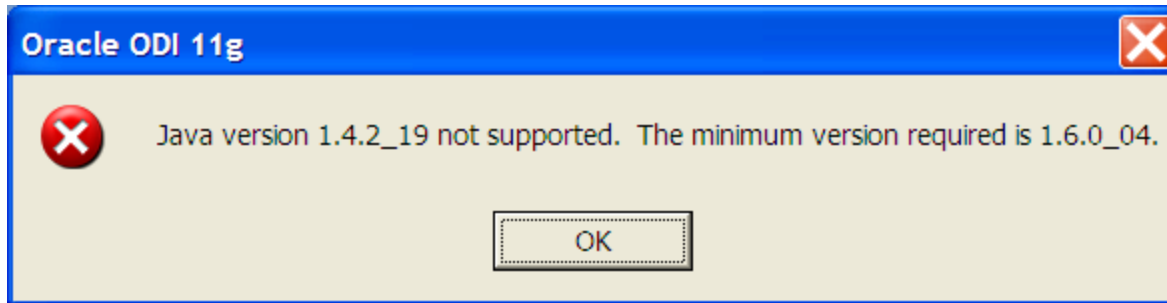
- Automatic reception of the mails of support with attachments detached in the folder /home/applmgr/Desktop on the machine of the agent.
- Wait indefinitely for 1 message and check for new messages every second (default).



ODI Readmail.



- Minimum Java version for ODI 11g Studio



- ✓ Java Download location

<http://www.oracle.com/technetwork/java/javase/downloads/index.html>

- ✓ ODI 11g Certification Matrix

<http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html>



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