Oracle Knowledge Analytics

Installation Guide

Release 8.4.2.2

July, 2012

COPYRIGHT INFORMATION

Contents

About This Guide

This guide provides technical staff with detailed information on installing and configuring Oracle Knowledge Analytics to report on configured Oracle Knowledge Intelligent Search and Oracle Knowledge Information Manager applications.

In This Guide

The *Oracle Knowledge Analytics Installation Guide* is divided into the following sections:

Chapter 1, Oracle Knowledge Analytics Overview	This chapter describes Analytics, including its architecture and components.
Chapter 2, Oracle Knowledge Analytics Requirements and Dependencies	This chapter describes the requirements and dependencies that you must satisfy before installing Analytics.
Chapter 3, Installing Oracle Knowledge Analytics	This chapter describes how to install and configure Analytics using the automated installation program.
Chapter 4, Configuring and Deploying Analytics	This chapter describes how to configure and deploy Analytics.

Screen and Text Representations

The product screens, screen text, and file contents depicted in the documentation are examples. We attempt to convey the product's appearance and functionality as accurately as possible; however, the actual product contents and displays may differ from the published examples.

References to External Web Content

For your convenience, we refer to Uniform Resource Locators (URLs) for resources published on the World Wide Web when appropriate. We attempt to provide accurate information; however, these resources are controlled by their respective owners and are therefore subject to change at any time.

CHAPTER 1

Oracle Knowledge Analytics Overview

Oracle Knowledge Analytics is an enterprise-grade business intelligence application designed specifically to provide insight into the effectiveness and performance of Oracle Knowledge applications. The Oracle Knowledge Analytics solution features extensive dashboards, intuitive reporting, and ad hoc investigation tools that enable you to:

- assess answer quality, and whether users are finding the information they seek
- guard against escalations by identifying and filling knowledge gaps and determine whether important information is missing from your content
- understand user behavior, monitor customer satisfaction, and continually improve user experience
- keep pace with new product releases and evolving audience needs

The Analytics Application

An Oracle Knowledge Analytics application consists of multiple components configured to extract, store, and present data collected from one or more configured Intelligent Search and/or Information Manager instances. Analytics components include:

- the ETL server, which uses a configured Oracle Knowledge instance to execute the data extraction, transform, and load (ETL) processes
- the data warehouse, which stores the extracted Intelligent Search and Information Manager log data, repository data and additional metadata used to create the report
- a configured Oracle Business Intelligence Enterprise Edition (OBIEE) instance, which provides the user interface for generating, viewing, and working with reports

OBIEE and Oracle Knowledge Analytics

Oracle Knowledge Analytics uses a configured instance of OBIEE installed on the Reports server. OBIEE is available separately, and is not included in the Oracle Knowledge product distribution. This document describes how to configure an installed instance of OBIEE to use the RPD (repository) and Catalog components that are provided with the product. See http://www.oracle.com/technetwork/middleware/bi-enterprise-edition/overview/index.html for more information on OBIEE.

Analytics Reporting Process

The Analytics application reports on Oracle Knowledge applications using a configured Oracle Knowledge instance to run a scheduled ETL process. The ETL process extracts log data from the configured instances and stores the formatted data in a data warehouse. You can then use the configured OBIEE application to access the data warehouse to generate the standard reports.

CHAPTER 2

Oracle Knowledge Analytics Requirements and Dependencies

This chapter describes the prerequisites and dependencies for installing, configuring, and operating Analytics.

Recommended Server and Processor Deployment

For high-volume applications, we recommend separating the Reports server from the server that hosts the database and ETL processes. If your Analytics application processes fewer than 3,000 questions per day, you can deploy all of the application components on a single processor. If your application processes more than 30,000 questions per day, we recommend that you deploy the data warehouse, ETL, and Reports server on separate networked processors.

Server and Database Requirements

The *Oracle Knowledge Platforms and Languages Support Guide* included with the Oracle Knowledge product documentation describes the hardware, software, and database requirements for Oracle Knowledge applications, including Oracle Knowledge Analytics.

Report Server (OBIEE) Requirements

Please refer to the *Oracle Fusion Middleware Quick Installation Guide for Oracle Business Intelligence for OBIEE* hardware and software requirements, installation pre-requisites, and instructions for installing, configuring, and uninstalling Oracle Business Intelligence products. You can access the Oracle Business Intelligence Documentation Library at: http://www.oracle.com/technetwork/middleware/bi-enterprise-edition/documentation/index.html. We strongly recommend that you familiarize yourself with the contents of the Oracle Business Intelligence Documentation Library.

The initial Analytics configuration process depends on the OBIEE Administration Tool, which runs only in Windows environments. Consult the OBIEE documentation for specific Administration Tool requirements and dependencies.

IMPORTANT: If you are using an SQL Server database, you need to install Microsoft Data Access Components (MDAC), also known as Windows DAC, on the Report server in order to connect OBIEE to the SQL Server database. You can locate Microsoft

	Data Access Components (MDAC) 2.8 SP1 at http://www.microsoft.com/download/en/default.aspx

CHAPTER 3

Installing Oracle Knowledge Analytics

You install the Analytics software on the processor that you have designated as the ETL server within your Analytics application architecture. The ETL server must have an installed and configured Intelligent Search scheduler instance, including the Advanced Configuration Facility.

The Analytics installation process uses an automated installation program that copies the product files from the product distribution and installs Analytics into the existing Oracle Knowledge directory structure. The installation program will install and configure either or both Intelligent Search Analytics and Information Manager Analytics.

You install and configure Analytics, using the following process:

- install the Analytics software
- install Oracle Business Intelligence, Enterprise Edition (OBIEE)
- configure the database connection
- configure and deploy the Repository (RPD) and the Catalog

The Analytics installer contains:

- Analytics 8.4.2.2 installer executable
- RPD (Repository)
- Business Intelligence Catalog

IMPORTANT: Before installing Oracle Knowledge Analytics, make sure the requirements and prerequisites are satisfied, and that appropriate personnel with access to the specified environments are available to perform the installation.

For instructions on starting the installation program, see “Starting the Installation Program”.

Starting the Installation Program

IMPORTANT: We strongly recommend that you log out of all programs before proceeding with the installation.

1. Start the installation program by locating and executing the appropriate installation program for your environment.

   To start the installation program in **Microsoft Windows** environments, run:

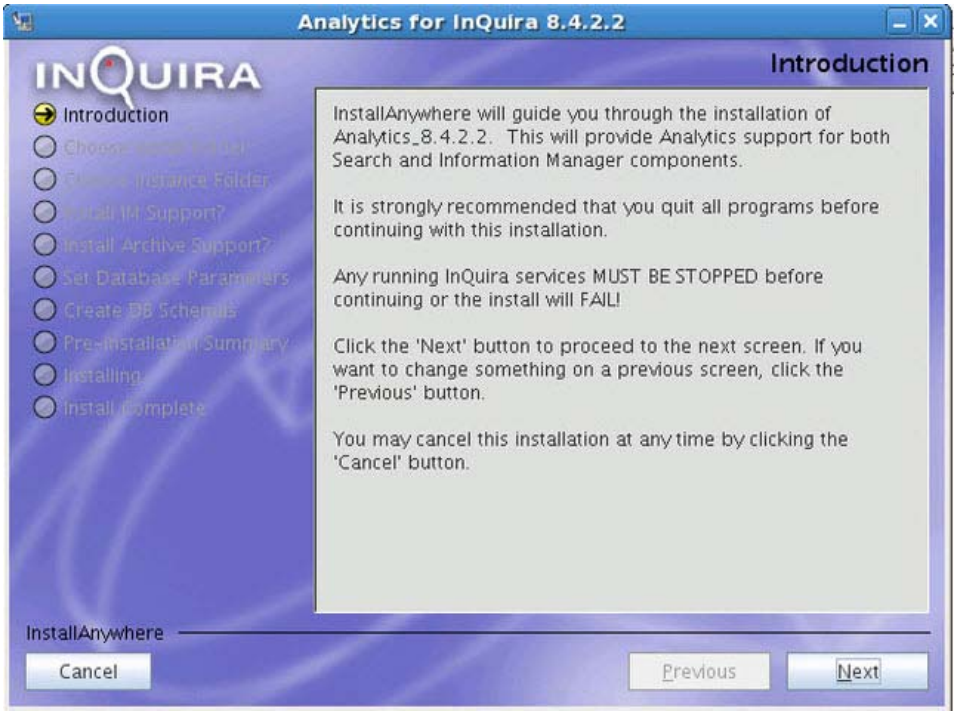
   ```
   install_analytics.exe
   ```

   To start the installation program in **Linux** environments, run:

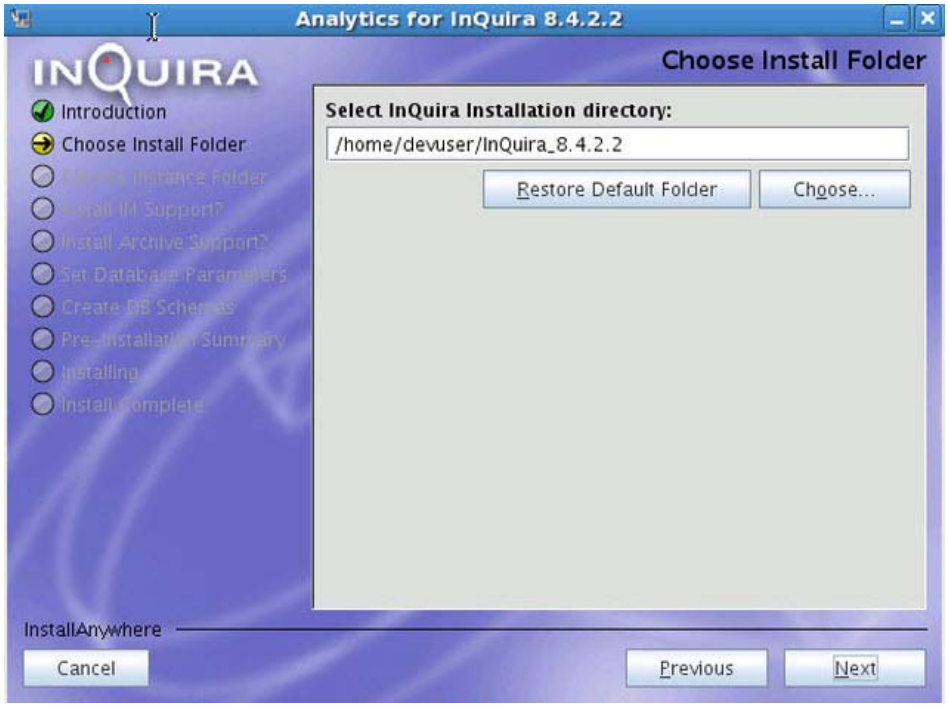
   ```
   install_analytics.bin
   ```

   The Analytics installation program starts and Introduction screen displays.

2. At the Introduction screen, click **Next**.



3 At the Choose Install Folder, select or enter the directory where Analytics will be installed.



The installation program selects a default location:

- `C:\Inquira_x.x` in Windows environments or `<user_home>/InQuira_x.x` in Linux environments

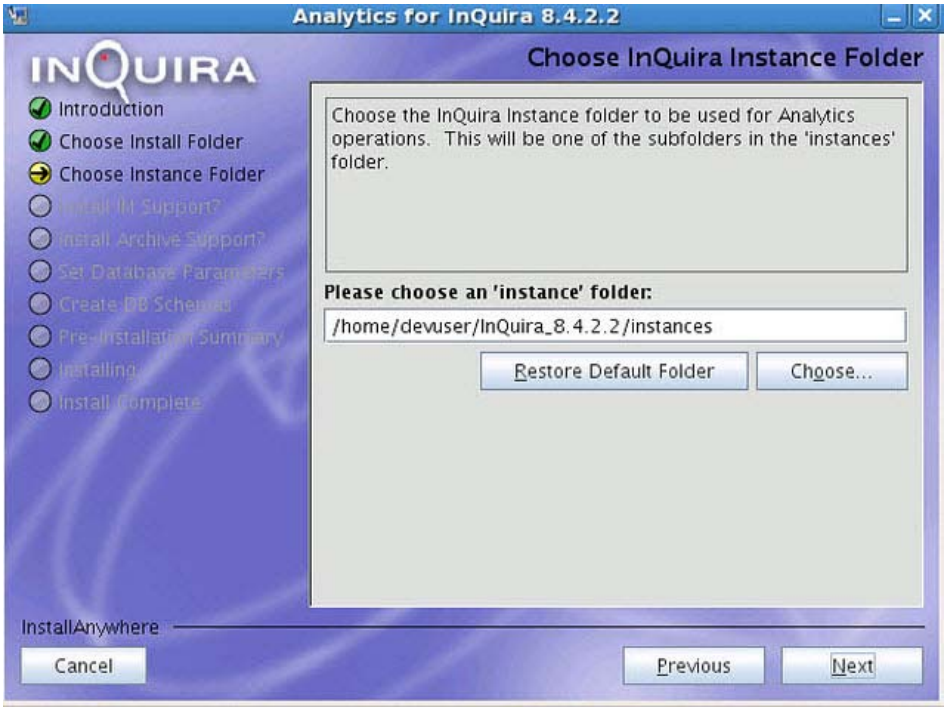
You can click **Choose** to open a file explorer and select an alternate location. Click **Restore Default Folder** to reset the default installation directory, if necessary.

IMPORTANT: The installation program checks to see that an Oracle Knowledge instance has been properly installed. If it does not find the folders and files it is expecting, an error message displays.

---

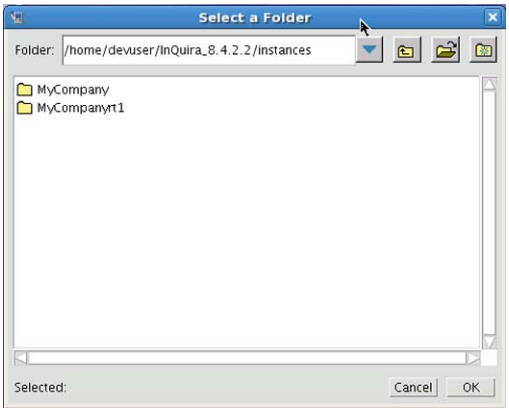
4 At the Choose InQuira Instance Folder screen, select the location of the Oracle Knowledge instance folder to be used for Analytics. The location needs to be one of the subfolders in the i**nstances** folder.

Note: Ensure that the selected instance is a configured Intelligent Search scheduler instance.



- The installation program selects a default location:
- `C:\Inquira_x.x \instances\` in Windows environments or <`user_home`>/`InQuira_x.x\instances` in Linux environments.

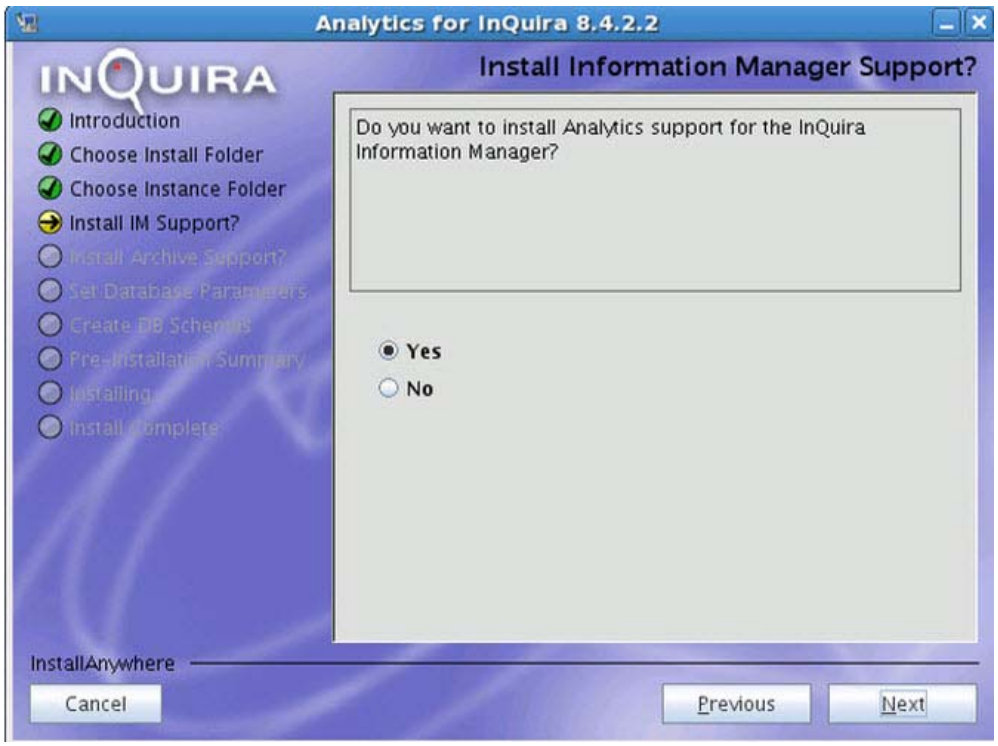
You can click **Choose** to open a file explorer and select an alternate location.



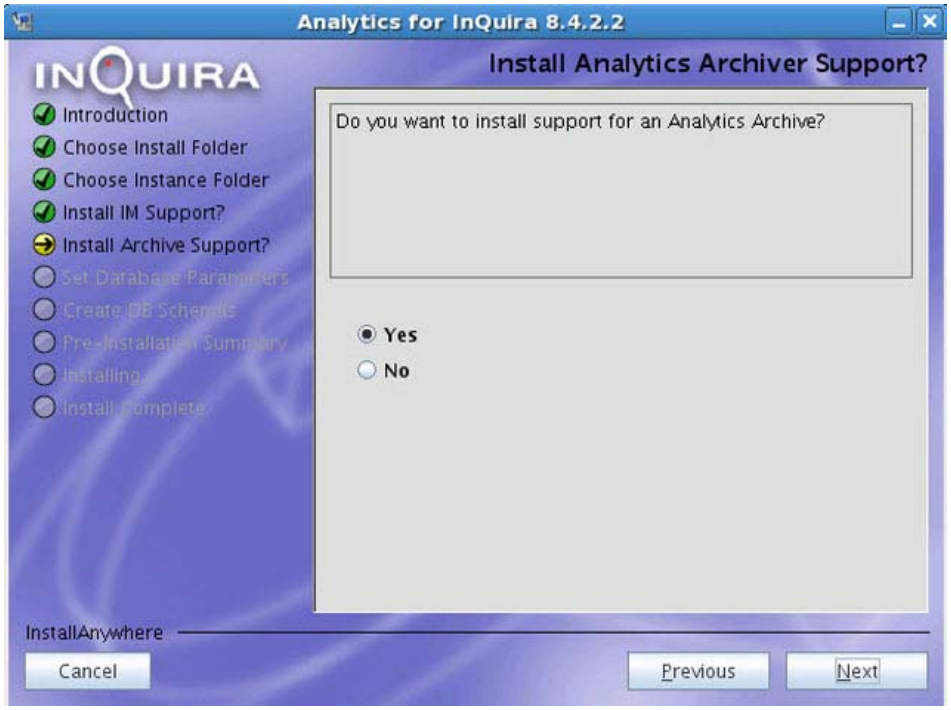
Click **Restore Default Folder** to reset the default installation directory, if necessary.

5 At the Install Information Manager Support screen, select **Yes** or **No**.

If you select **Yes**, Information Manager Analytics will be installed. You must have InQuira Information Manager already installed before selecting **Yes**. Click **Next.**

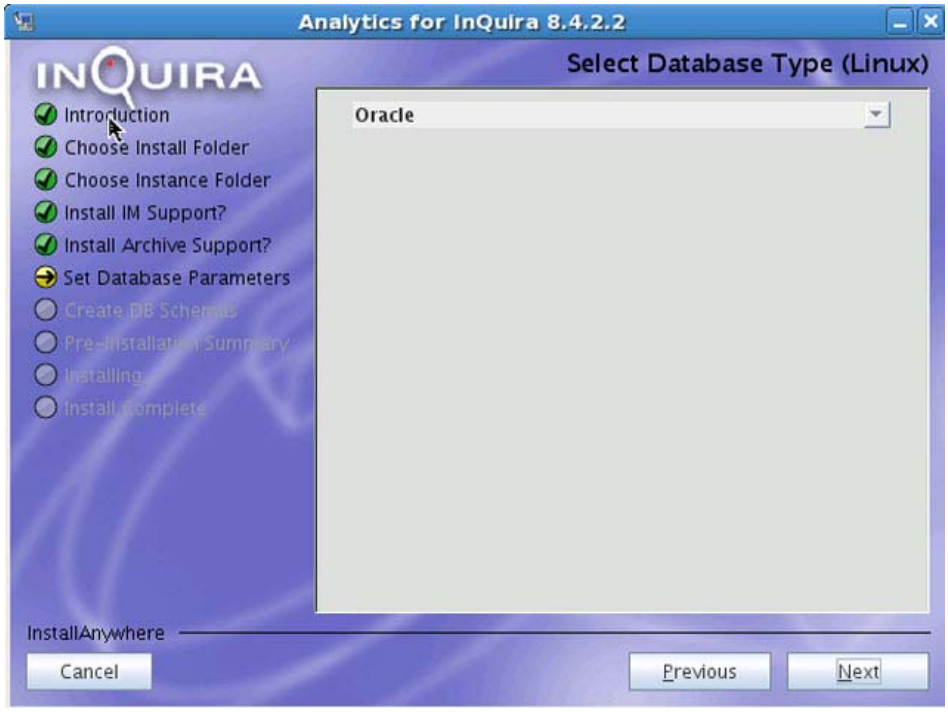


6 At the Install Analytics Archiver Support screen, select **Yes** or **No** and click **Next**.



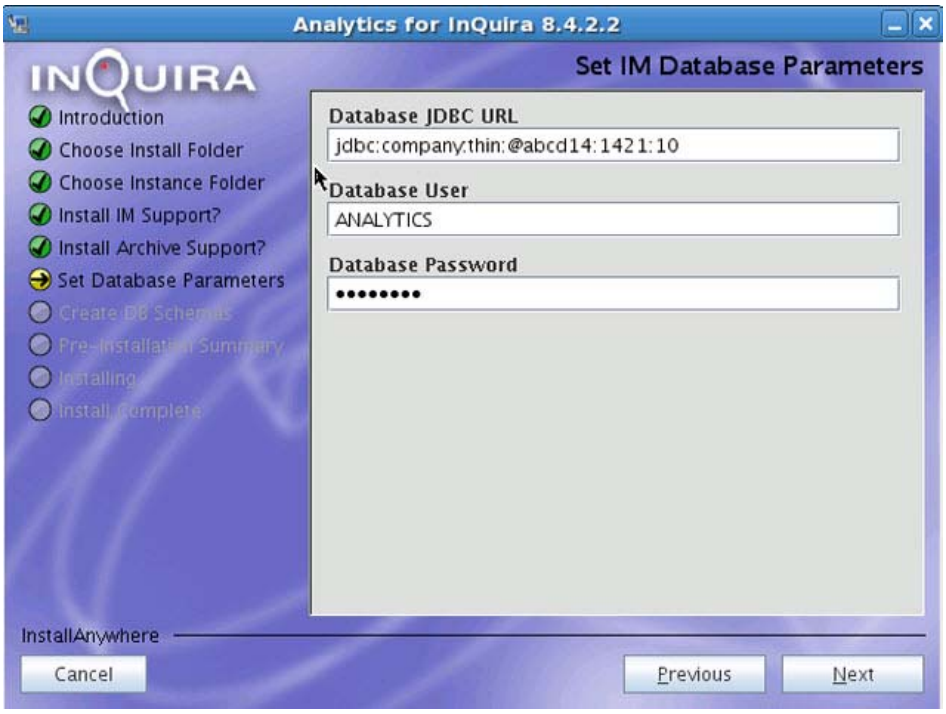
Selecting **Yes** will install an Analytics Archive.

7 At the Set Database Type screen, select an Oracle database or an SQL database and click **Next**.



8 If you selected **No** at the Install Information Manager Support screen, skip to step 10.

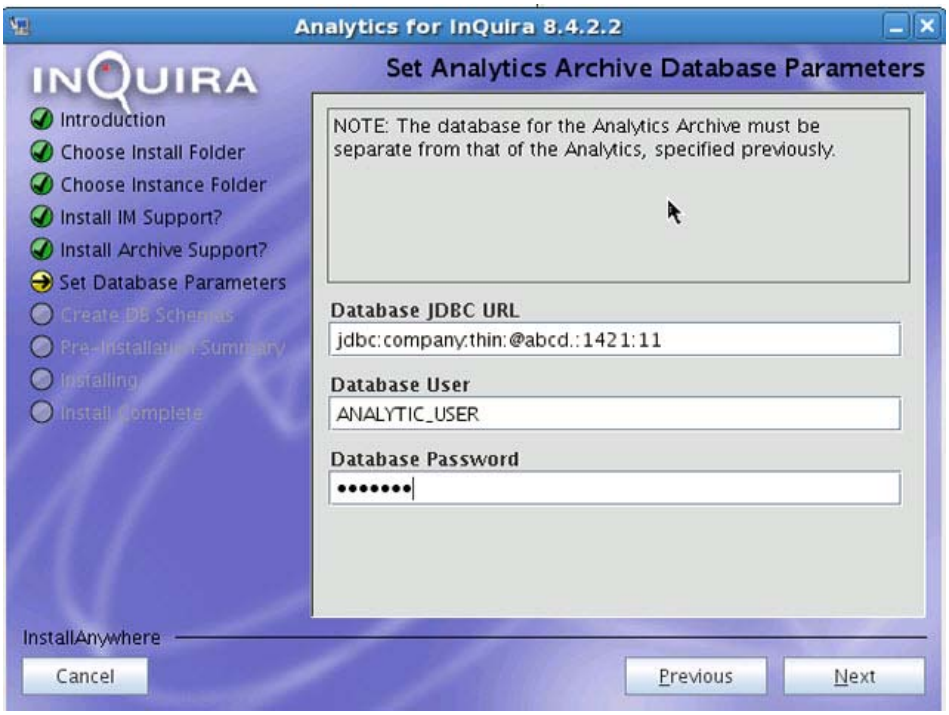
If you selected **Yes** to install Information Install Information Manager Support screen, the Set IM Database Parameters screen displays.



Set the database parameters for the Information Manager Analytics Database.

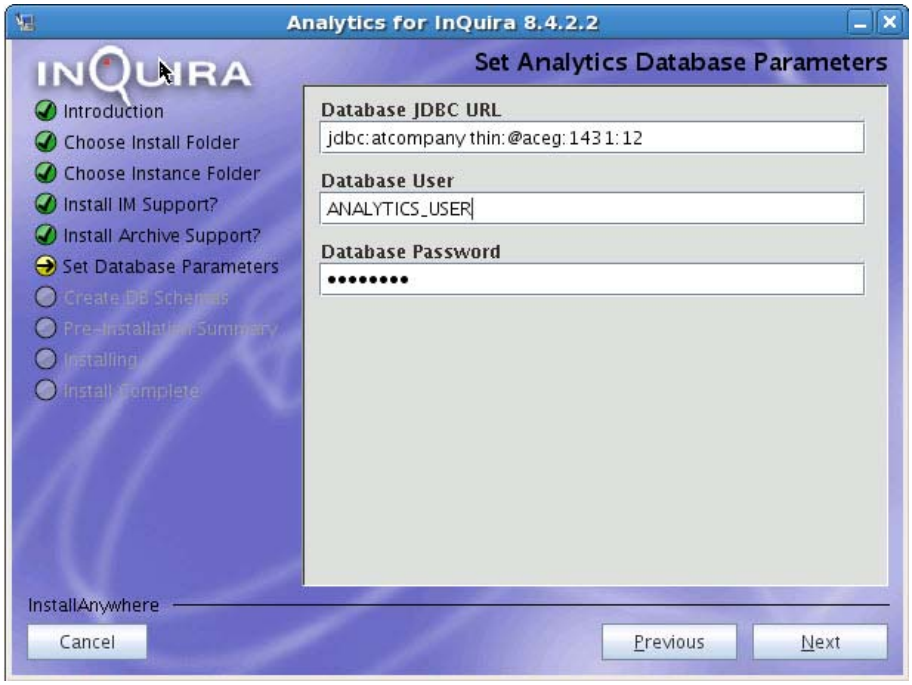
9 If you selected **No** at the Install Analytics Archive Support screen, skip to step 10.

If you selected **Yes** at the Install Analytics Archive Support screen, the Set Analytics Archive Database Parameters displays.



Set the database parameters for the Analytics Archive Databases.

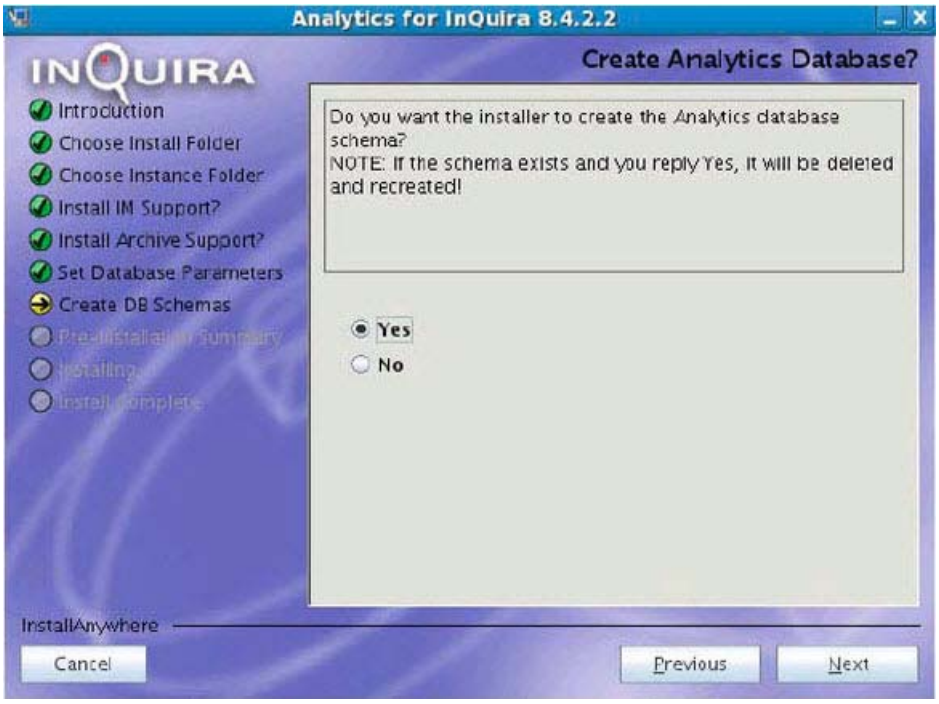
10 At the Set Analytics Database Parameters screen, enter the Database JDBC URL (database location), Database User, and Data Password, and click **Next.**



IMPORTANT: The database for Analytics and the database for the Analytics Archive must be separate.

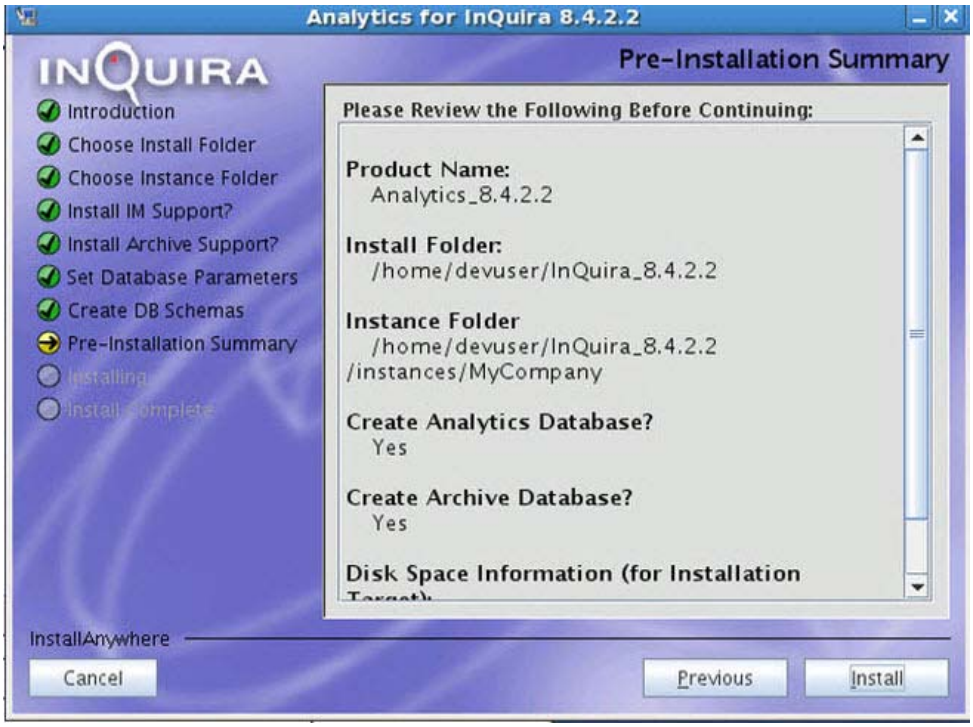
---

11 At the Create Analytics Database screen, select **Yes** or **No** and click **Next**.

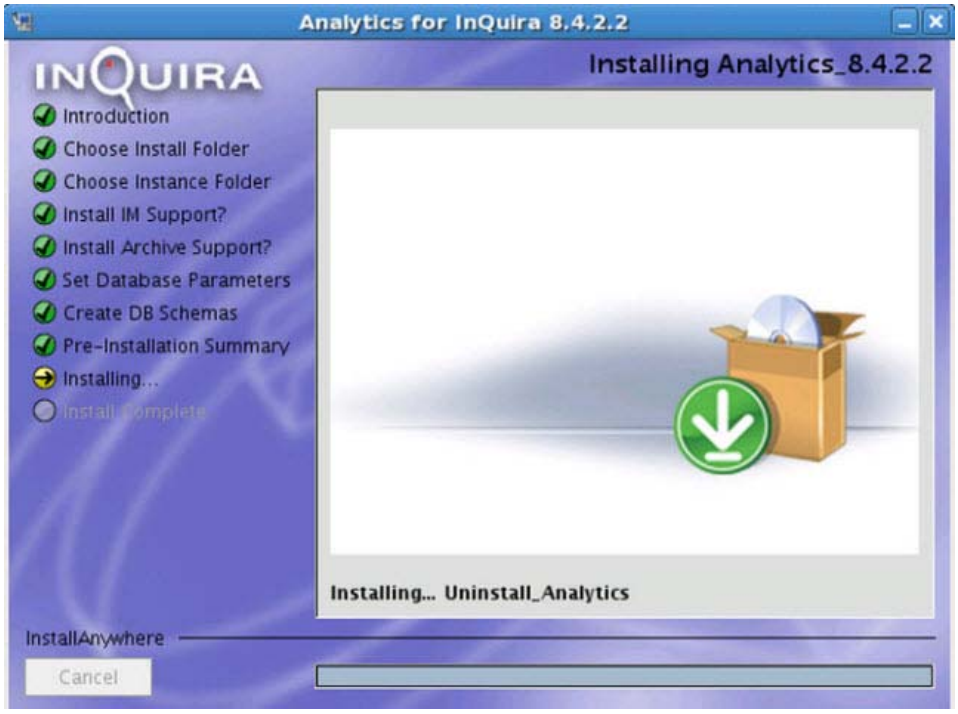


IMPORTANT: If you select Yes and the schema already exists, it will be deleted and recreated.

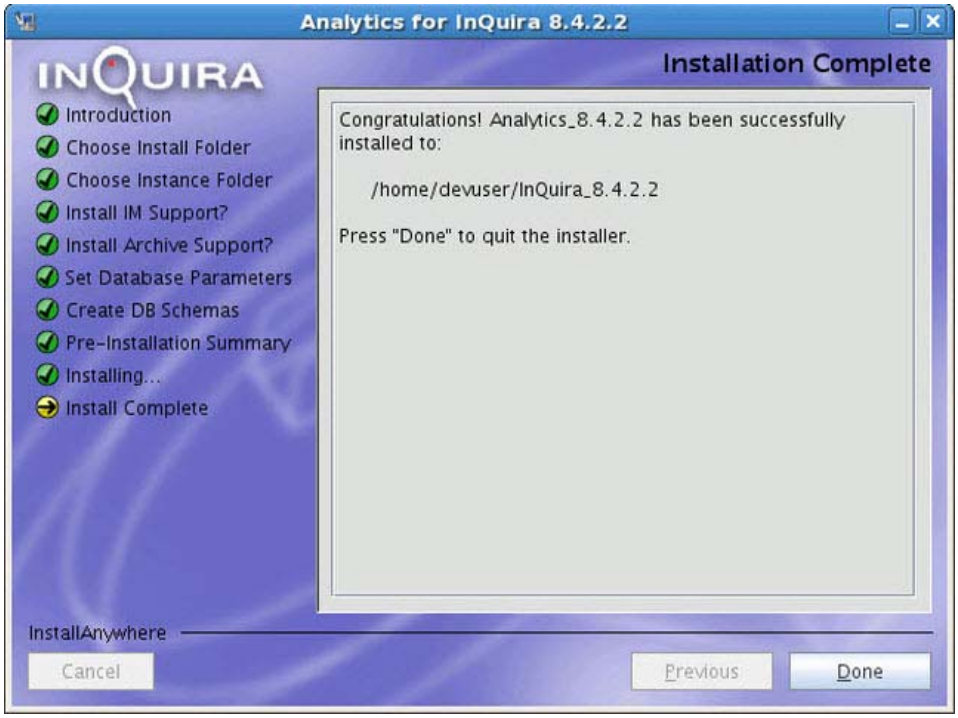
12 At the Pre-installation Summary screen, check your selections; to modify, click **Previous** until you get back to the screen on which you need to make a change. Click **Install** to start the installation process.



13 The Installing Analytics 8.4.2.2 screen displays the progress of the installation.



14 The completion screen summarizes the installation process.The InQuira Analytics component directories and files are now installed in the specified location.



CHAPTER 4

Configuring and Deploying Analytics

Installing OBIEE

You install OBIEE on the designated Reports server using the process described in the OBIEE installation documentation. You must also install the OBI Administration tool.

When you have completed the OBIEE installation, you can configure OBIEE by creating the Analytics project.

Installing the OBI Administration Tool

You can install the OBI Administration tool:

- on the Reports server, which also hosts OBIEE and the data warehouse
- on a separate server

IMPORTANT: The OBI Administration Tool operates only in Windows environments.

Creating the Analytics Project in OBIEE

The Oracle Knowledge Analytics installation process creates an RPD (repository) file and a catalog that defines the Oracle Knowledge project, including the various dashboards and reports that make up the application. You create the Oracle Knowledge Analytics project by:

- connecting OBIEE to the data warehouse
- deploying the RPD and Catalog

You can then validate the application.

Connecting OBIEE to the Data Warehouse

You connect the OBIEE instance to the data warehouse by editing the database connection parameters in the RPD file that was installed as part of the Analytics installation process. You edit the RPD file using the OBIEE Administration Tool.

IMPORTANT: If you are using an SQL Server database, you must use MDAC, (or Windows

DAC, to define the ODBC data source and add and configure the appropriate driver. See `http://msdn.microsoft.com/en-us/library/windows/desktop/ms692872%28v=vs.85%29.aspx` for MDAC / Windows DAC documentation resources.

The Analytics installation process creates the catalog and RPD files on the file system in `SEARCH_INSTALL_DIR\analytics\reporting`.

- Copy the catalog file (analyticsReports.zip) and the RPD (analyticsReports.rpd) file to a temporary directory on the OBIEE server.
- Extract the contents of the analyticsReports.zip file in the temporary directory.

  This creates the `IM_Analytics` directory.

Changing the RPD Password

The RPD file is shipped with a default password. We strongly recommend that you change the RPD password prior to deploying the RPD and Catalog. The repository password must be at least eight characters, with at least one numeric character. The Repository Password field cannot be empty.

Change the RPD password using the Business Intelligence (BI) Administration Tool.

To change the RPD password:

1. Open the repository in the BI Administration Tool and select **File> Open > Offline**.
2. Select **File> Change Password**.
3. Enter the current (default) password: *inquira1.*
4. Enter the new password and confirm it.
5. Select **File>Save**.

Configuring Connections to the Data Warehouse

You configure the connection between OBIEE and the data warehouse using the Oracle Business Intelligence (BI) Administration tool and the `tnsnames.ora` mapping file.

Defining the Database Connections

You define the connection to the Analytics database using tnsnames.ora files. A tnsnames.ora file is a configuration file that defines database addresses for connection. When you install and configure OBIEE, you must configure the `tnsnames.ora` file and place copies:

- in the `network/admin` directory within the OBIEE installed directory structure
- in the `network/admin` directory in the BI Administration tool installed directory structure

Connecting to the Analytics Schema (Oracle)

1. Open the BI Administration Tool and select **File> Open > Offline**.
2. Navigate to the directory where you put the RPD file, and open it.
3. At the Repository login, enter your repository password.
4. Select **Manage>Variables**.
5. At the Variable Manager, double click on **Inquira_IM_DSN**.

   Enter the Default Initializer, which is the database server name, as it is defined in the ODBC connection. The database server name is surrounded by single quotes (‘DBServerName‘).
6. At the Variable Manager, double click on **Inquira_IM_USER**.

   Enter the Default Initializer, which is the database schema name, The database schema name is surrounded by single quotes (‘DBSchema‘).
7. At the BI window, expand and then double click on **DW_IM_Search** in the **Physical** panel.
8. Enter the Analytics schema password, and enter again to confirm it.
9. To check the connection:
   a. Expand the INQ_ANALYTICS node in the **Physical** panel
   b. Right-click on **Repository Dim>View Data** to ensure the RPD is connected and repository table data is displayed.
10. Click **File>Save**.

Connecting to the Analytics Database (MS SQL Server)

1. Open the BI Administration Tool and select **File> Open > Offline**.
2. Navigate to the directory where you put the RPD file, and open it.
3. At the Repository login, enter your repository password.
4. Select **Manage>Variables.**
5. At the Variable Manager, click on **inquira_IM_USER**.

   Enter the Default Initializer, which is the database user name, The database user name is surrounded by single quotes (‘DBUser‘).
6. At the BI window, double click on **DW_IM_SEARCH_Inq** in the **Physical** panel. Under the Database source definition, select SQL Server database.
7. At the BI window, double click on **DW_IM_Search** in the **Physical** panel.
8. Select **ODBC** in the Call Interface field.
9. Select SQL Server (defined in the ODBC connection) as the data source name.
10. Enter the user password, and enter again to confirm it.
11. To check the connection:

a. Expand the INQ_ANALYTICS node in the **Physical** panel

b. Right-click on **Repository Dim>View Data** to ensure the RPD is connected and repository table data is displayed.

12. Click **File>Save**.

Deploying the RPD and Catalog

The RPD and catalog define the Oracle Knowledge project, including the dashboards and reports, that you access using the OBIEE user interface.

To deploy the RPD and catalog:

1. Copy the edited RPD file from the temporary directory to the Repository directory at: `OBIEE_INSTALL_DIR\instances\instance1\bifoundation\OracleBIServerComponent\coreapplication_obis1\repository`.
1. Copy the `IM_ANALYTICS` folder to the catalog directory at: `OBIEE_INSTALL_DIR\instances\instance1\bifoundation\OracleBIPresentationServicesComponent\coreapplication_obips1\catalog`
2. Navigate to OBIEE Enterprise Manager at `http://_hostname_:7001/em`

   where `hostname` is the name of the server where OBIEE is installed.

   a. Log in with the username and password you used to install OBIEE.
3. On the left pane, click **Business Intelligence/coreapplication**.
4. On the right pane, click **Overview** and then press **Stop** on **Manage System** to stop the BI Server.
5. On the right pane, click **Lock and Edit Configuration**.

   This prevents anyone else from making configuration changes at the same time. Wait for confirmation popup.
6. On the right pane, click **Deployment/Repository**.
7. Enter the Repository password and click **Apply**.
8. At **BI Presentation Catalog**, change the catalog location to:

   `$ORACLE_INSTANCE/bifoundation/OracleBIPresentationServicesComponent/$COMPONENT_NAME/catalog/IM_Analytics`
9. Click **Activate Changes**.
10. On the left pane, go to **Overview** and press **Start**.

The RPD is deployed and the catalog that defines the Oracle Knowledge Analytics project within OBIEE is added.

Purging the Caches

Frequently, the caches require a purge after configuration and deployment.

1. Enter the Repository password: *inquira1,* and enter the user and password you established when you installed OBIEE.
2. Navigate to **Manage>Cache** to open the caches.
3. Select **Edit>Select all**, and then select **Edit>Purge**.

   The caches are now empty.

Validating the Analytics Installation

You can log onto the OBIEE reporting user interface to validate the installation and configuration process.You can validate the installation process by logging onto the application at:

```
http://_hostname_:7001/analytics
```

using the credentials you specified during installation.

The Oracle Knowledge Analytics Home Page displays the preconfigured dashboards. You can now define additional users, configure the extraction, transformation, and load (ETL) process to populate the reports, and perform other administrative tasks as described in the Oracle Knowledge Analytics Administration Guide.