Oracle Life Sciences InForm

Installation Guide

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Preface

This preface contains the following sections:

- Documentation accessibility
- Diversity and Inclusion
- Related resources
- Access to Oracle Support
- Additional copyright information

Documentation accessibility

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Related resources

All documentation and other supporting materials are available on the Oracle Help Center.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through Oracle Support Cloud.

Contact our Oracle Customer Support Services team by logging requests in one of the following locations:

- English interface Customer Support Portal (https://hsgbu.custhelp.com/)
- Japanese interface Customer Support Portal (https://hsgbu-jp.custhelp.com/)

You can also call our 24x7 help desk. For information, visit https://www.oracle.com/life-sciences/support/ or visit https://www.oracle.com/corporate/accessibility/learning-support.html#support-tab if you are hearing impaired.

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Part I

Preparing the database servers

In this chapter:

- Preparing to install
- Installing the Oracle database software
- Configuring the Oracle database software
- Installing and configuring the Oracle database client

1

Preparing to install

In this section:

- Oracle InForm product archive
- Oracle InForm software components
- Determining resources for multiple studies
- Configuring client computers
- Performance Options setting in System Properties

Oracle InForm product archive

The Oracle InForm product archive includes zip archives that contain:

- Native installers—The native installer archive contains setup files that install the base products necessary for the Oracle InForm software to run.
- Customization wizards—The customization wizard archives contain setup files you use to apply customizations needed for an installation of the Reporting and Analysis module. Use the customization wizard archives only if you are installing the Reporting and Analysis module.

Archive	Description
Oracle InForm	Contains the Oracle InForm core software, including the Oracle InForm Adapter, Oracle InForm Publisher, and Oracle InForm Portal features.
Cognos Analytics Customization for Oracle InForm	Contains files used to run the Cognos Customization for Oracle InForm wizard.
Cognos Analytics Gateway Customization for Oracle InForm	Contains files used to run the Cognos Gateway Customization for Oracle InForm wizard.

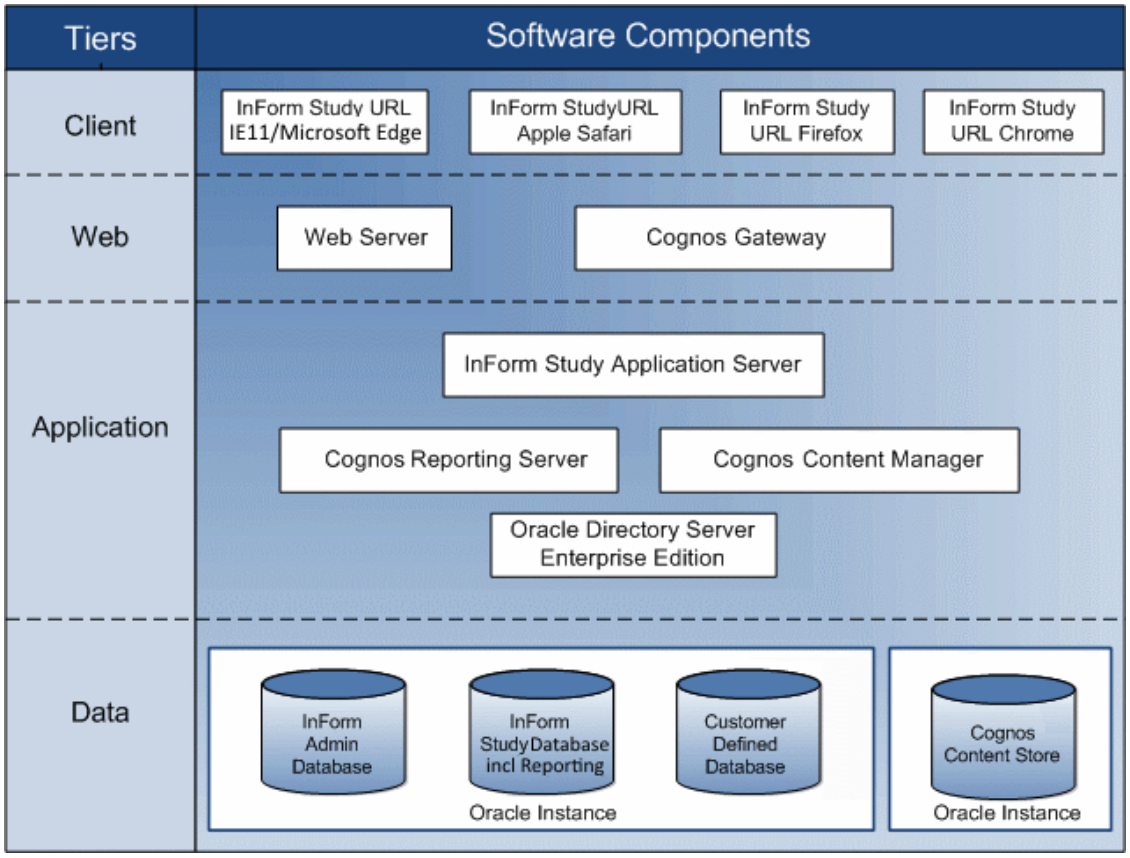
Oracle InForm software components

In this section:

- Overview of the Oracle InForm system architecture
- Application server options
- Database configuration options
- Externally hosted studies

Overview of the Oracle InForm system architecture

The Oracle InForm software is a four-tiered software design. The following illustration is a logical representation of the system architecture.



Tier	Software component hosted on the tier	Description
Client	Web browser	Displays the pages of a study and receives user input.
Web	Web server and gateway software (MS-IIS)	Services requests to and from the web browser.
Web	Cognos Analytics Gateway	Manages the transfer of information from the Web server to another server. Provides secure access to the Cognos Analytics Server.
Application	Oracle InForm application server	Logical server that acts as a transaction manager for InForm studies under the Oracle InForm Service. The Oracle InForm Server handles caching and Microsoft Transaction Server (MTS) packages. Each study is associated with an Oracle InForm study application server. If the Reporting and Analysis is installed, the Oracle InForm Model Updater Service runs on the Oracle InForm Server to synchronize the clinical model.

Tier	Software component hosted on the tier	Description
Application	Cognos Report Server (Application services)	Runs reporting-related requests for operating system services. There is one Cognos Analytics Service per physical server machine.
Application	Cognos Content Manager (Content repository)	Manages the storage of customer application data, including security, configuration data, models, metrics, report specifications, and report output. Content Manager is needed to publish packages, retrieve or store report specifications, manage scheduling information, and manage the Cognos namespace.
Application	Oracle Directory Server	Provides secure Admin access to Oracle InForm Reporting.
Data	Oracle database instances for:	• Oracle InForm study database—Stores the study components and the clinical data. Studies typically share an instance of the Oracle database with the Oracle InForm Admin schema. • Oracle InForm Admin database—Used by the Oracle InForm Service to manage all the studies on a physical machine. There is one Oracle InForm Admin database per Oracle InForm Service. • Oracle InForm Reporting database—Stores views for Cognos Reporting through the Reporting and Analysis module. The Oracle InForm Reporting database shares an instance of the Oracle database with the Oracle InForm Admin and study databases. • Cognos Analytics Content Store—Stores user-created reporting objects such as folders, saved reports, and saved views. The Content Store can share an instance of the Oracle database with the Oracle InForm Admin and study databases or can reside in a separate Oracle database instance.

Application server options

You can distribute the software components across multiple application servers to best fit your environment. You can use one of the following deployment options:

- Minimal server deployment
  Install the Oracle InForm software and the Reporting and Analysis module on the fewest possible number of servers.
- Multiple server deployment
  Install the Oracle InForm software and the Reporting and Analysis module on multiple servers.
- Distributed server deployment
  Install the Oracle InForm software and the Reporting and Analysis module on separate servers.

Minimal server deployment

Install the Oracle InForm software and the Reporting and Analysis module on the fewest possible number of servers.

A minimal-server deployment requires the following servers:

- Oracle InForm Application Server
- A server that hosts the Cognos components and the Oracle Directory Server:
  - Report application
  - Content Manager
  - Gateway
  - Oracle Directory Server
- A server for all the database instances.

Multiple server deployment

Install the Oracle InForm software and the Reporting and Analysis module on multiple servers.

In a multiple server deployment, the Oracle InForm Server, the Cognos Analytics Server, and the study and reporting databases are on at least five separate server machines that conform to Oracle InForm hardware and software requirements.

For example, a multiple server deployment might include six server machines configured as follows:

- One Cognos Gateway Server machine.
- One Cognos server machine containing the:
  - Cognos Report server.
  - Cognos Content Manager server.
- One Oracle InForm Application server machine.
- One Oracle Directory Server machine.
- Two dedicated Oracle database server machines:
  - One for the Oracle InForm database and the reporting database.

  - One for the Cognos Analytics Content Store.

> **Note:**
>
> The Oracle InForm application server(s) and the Cognos Analytics application server(s) must be in the same domain.

Distributed server deployment

Install the Oracle InForm software and the Reporting and Analysis module on separate servers.

In a distributed server deployment, the Oracle InForm Application Server, the Cognos Report Server, the Cognos Content Manager Server, the Cognos Gateway Server, the Oracle Directory Server, and the study and reporting databases are on separate server machines that conform to Oracle InForm hardware and software requirements.

For example, a distributed server deployment might include at least eight server machines configured as follows:

- One Oracle InForm Application server machine.
- One Cognos Gateway Server.
- One Cognos Report Application Server.
- One Cognos Content Manager Server.
- One Oracle Directory Server machine.
- Two dedicated Oracle database server machines:
  - One for the Oracle InForm database instance and the reporting database instance.
  - One for the Cognos Analytics Content Store database instance.

Database configuration options

You can use different configurations for your database instances when you install the Oracle InForm software. You can choose:

- SameDB—Single database instance for Oracle InForm and Cognos reporting software
  The Oracle InForm database and the Oracle InForm reporting database are installed on a single database instance.
- Distributed deployment options
  The database instance is configured to distribute tablespaces across multiple database servers.

SameDB—Single database instance for Oracle InForm and Cognos reporting software

The Oracle InForm database and the Oracle InForm reporting database are installed on a single database instance.

Observe the following architecture rules when setting up the database instance for the Oracle InForm software and the Reporting and Analysis module:

- A single database can hold multiple reporting schemas.

- The study and reporting schema cannot be installed in the same database as the Content Store database for Cognos Analytics Reporting. No other Oracle products should already reside in or be added to the study and reporting database.
- The Oracle InForm database is not required to run in archive log mode.

Distributed deployment options

The database instance is configured to distribute tablespaces across multiple database servers.

You can distribute your study and reporting database across multiple disk partitions on the same server or multiple database servers. For more information, see Multiple study tablespaces.

Externally hosted studies

Externally hosted studies must conform to the following requirements, or authentication issues will result.

- The Oracle InForm application server(s) and the Cognos Analytics application server(s) must be in the same domain.
- You must use the fully qualified domain name to access the site.

Determining resources for multiple studies

You can install one or more studies on an Oracle InForm application server or on a physical server. When deciding the load that you will place on a server, consider:

- The number of Oracle InForm application servers on each physical server machine.
- The number of studies on each Oracle InForm application server.
- The size of the intended Oracle InForm application server (each server requires 40 to 50 megabytes of memory).
- The number of studies you intend to run on the server machine.
- The system availability requirements.
- The geographic proximity of sites to the server.
- Guidelines for determining resources
- Sizing the server

Guidelines for determining resources

Follow these basic guidelines for determining resources:

- Use separate server machines for production studies and studies that are used for testing and training.
- Consider using one server machine for multiple smaller studies (especially Phase 1 studies) that are on separate Oracle InForm application servers.
- Use a separate server machine for each large study (especially Phase 3 studies). Although multiple servers might require additional resources and additional cost, they also provide increased dependability and stability.

Separate server machines can reduce risk. If you have more than one study on a server machine and make an error in setup or configuration, all the studies on that server are affected.

Sizing the server

When sizing an Oracle InForm application server, be aware of the resources that are already being used. Make sure that you monitor the servers during the studies. When sizing your server, consider the average number of:

- Sites.
- Subjects per site.
- CRFs (forms).
- Data items.
- Users.

For each study, consider the following:

- Good Clinical Practice (GCP) status of the study (GCP or non-GCP).
- Study phase.
- Study duration.
- Enrollment rate.
- Geographic proximity of servers to sites.
- System availability requirements.
- Number of sites.
- Number of users.
- Number of subjects.
- Number of unique forms.
- Maximum number of items per form.
- Average number of items per form.
- Maximum number of rules per form.
- Average number of rules per form.
- Total number of forms per subject.

Configuring client computers

In this section:

- Browser settings for Microsoft Edge
- Browser settings for Google Chrome
- Browser settings for Apple Safari
- Browser settings for Mozilla Firefox
- Windows Explorer settings

Browser settings for Microsoft Edge

If you are using Microsoft Edge, you can accept and use the default settings.

Browser settings for Google Chrome

Configure the following Google Chrome settings to access the Oracle InForm application.

Google Chrome is not supported for the Reporting and Analysis module.

- Specify the preferred browser language.
- Configure pop-up blocking to allow pop-ups for the Oracle InForm web site domain and the Reporting and Analysis web site domain.
- Prevent Chrome from using stored passwords.
- Set the TLS option to use TLS 1.2 or higher.
- Modify security settings to accept cookies.
- Set up tabbed browsing to launch links in a new tab.

For more information, see the Google Chrome documentation.

Browser settings for Apple Safari

Configure the following Apple Safari settings to access the Oracle InForm application.

Apple Safari is not supported for the Reporting and Analysis module.

- Specify the preferred browser language.
- Configure pop-up blocking to allow pop-ups for the Oracle InForm application web server.
- Prevent Safari from using automatic password completion.
- Modify security settings to accept cookies.
- Set up tabbed browsing to launch links in a new tab.

For more information, see the Apple Safari documentation.

Browser settings for Mozilla Firefox

Configure the following Firefox settings to access Oracle InForm and Cognos.

- Specify the preferred browser language.
- Configure pop-up blocking to allow pop-ups for the Oracle InForm website domain and the reporting website domain.
- Prevent Firefox from using stored passwords.
- Set the security protocol option to use TLS 1.2 or higher.
- Modify security settings to accept cookies.
- Set up tabbed browsing to launch links in a new tab.

For more information, see the Mozilla Firefox documentation.

Windows Explorer settings

Configure the following Windows Explorer settings to access the Oracle InForm application and the Reporting and Analysis module.

- Make sure the files with the XLS and XLSX extensions are not set to Browse in the same window.
- Associate files with the XLS and XLSX extensions with the Microsoft Excel spreadsheet software.

Performance Options setting in System Properties

If the Oracle InForm application server is also the database server for the study database instance, you might receive errors that are related to cache initialization time when installing a study if the system setting for **Processor scheduling** is not set to **Adjust for best performance of Programs**.

1. On the Oracle InForm application and database server, open the **System Properties** dialog box, and select **Advanced**.
2. In the **Performance** section, click **Settings**.

   The Performance Options dialog box appears.
3. Click **Advanced**.
4. In the **Processor scheduling** section, click **Programs**.

> **Note:**
>
> When the Oracle InForm application server and database server are different machines, the system setting for **Processor scheduling** in the System Properties > Performance Options dialog box should be the default value, **Background services**.

5. Click **OK** in both dialog boxes.

2

Installing the Oracle database software

In this section:

- About installing the Oracle database software
- Install the Oracle database software

About installing the Oracle database software

To install the Oracle database software, refer to your Oracle database documentation.

To ensure a successful installation, make sure your environment is set up correctly. For more information, see the *System Requirements* guide for your Oracle InForm release.

Install the Oracle database software

You must install the Oracle database software on the:

- Oracle InForm database server.
- Cognos Content Store database server.

For more information:

- Steps to create database instances.
- Steps to create database users.

3
Configuring the Oracle database software

In this section:

- About configuring the Oracle database software
- Create database instances
- Create database users
- Multiple study tablespaces
- Set up Transparent Database Encryption—Optional

About configuring the Oracle database software

To configure the Oracle database, you must create the:

- Database instances and tablespaces
  For more information, see Create Oracle Database instances.
- Database users
  For more information, see Create database users.

> **Note:**
>
> This Oracle InForm release does not support the Oracle database multitenant architecture with multiple pluggable databases (PDBs) in a single container database (CDB).

Create database instances

In this section:

- Steps to create database instances
- Create Oracle Database instances
- Set the initialization parameters for the database instances

Steps to create database instances

1. Create instances on the:
   - Oracle InForm database server. If you are using the Reporting and Analysis module, the Reporting database uses the Oracle InForm database instance.
   - Cognos Content Store database server.

   For more information, see:
   - Create Oracle Database instances
   - Create a database instance for the Cognos Analytics content store

2. Set the initialization parameters for the database instances on the Oracle InForm database server.

   For more information, see Set the initialization parameters for the database instances.

Create Oracle Database instances

Use the Oracle tools to create the instances required for your configuration.

Use the following character set specifications for the database instances:

- Database Character Set—AL32UTF8.
- National Character Set—AL16UTF16.

To verify the character set settings:

1. Log into SQL*Plus and type:

   ```
   sqlplus <dba_userid>@<connection_string>
   ```

   When prompted, enter the dba user password.
2. Run the following command:

   ```
   select * from nls_database_parameters
   where parameter = any('NLS_CHARACTERSET','NLS_NCHAR_CHARACTERSET');
   ```

- Create the Oracle InForm User Management Tool database instance
- Create a database instance for the Cognos Analytics content store
- Set the minimum authentication protocol for connecting to the database instances

Create the Oracle InForm User Management Tool database instance

1. Set up an Oracle database instance.
2. Make sure the following instance DEFAULT tablespaces exist in the database instance:
   - SYSAUX
   - SYSTEM
   - UNDOTBS1
   - USERS
   - TEMP

   Oracle InForm-specific tablespaces:
   - TEMPBIG
   - INFORM
   - INFORM_LOB
3. Depending on your DB hardening, create specific tablespaces by running the following SQL commands:
   - SQL commands for hardening DB

- INFORM

```
CREATE TABLESPACE INFORM DATAFILE '/u01/oracle/oradata/trial1/
inform01.dbf' SIZE 1000M REUSE AUTOEXTEND ON NEXT 500M MAXSIZE
UNLIMITED ENCRYPTION DEFAULT STORAGE (ENCRYPT) BLOCKSIZE 16K;
```

- INFORM_LOB

```
CREATE TABLESPACE INFORM_LOB DATAFILE '/u01/oracle/oradata/trial1/
inform_lob01.dbf' SIZE 1000M REUSE AUTOEXTEND ON NEXT 500M MAXSIZE
UNLIMITED ENCRYPTION DEFAULT STORAGE (ENCRYPT) BLOCKSIZE 16K;
```

OR

- SQL commands for non-hardening DB
  - INFORM

```
CREATE TABLESPACE INFORM DATAFILE '/u01/oracle/oradata/trial1/
inform01.dbf' SIZE 1000M REUSE AUTOEXTEND ON NEXT 500M MAXSIZE
UNLIMITED BLOCKSIZE 16K;
```

  - INFORM_LOB

```
CREATE TABLESPACE INFORM_LOB DATAFILE '/u01/oracle/oradata/trial1/
inform_lob01.dbf' SIZE 1000M REUSE AUTOEXTEND ON NEXT 500M MAXSIZE
UNLIMITED BLOCKSIZE 16K;
```

Note:

Directory structure is provided as an example. Please make sure to match these commands to the directory structure of your Oracle installation.

Note:

For pluggable databases (PBDs), you can create custom names for the study database tablespaces. These custom names can follow any naming conventions that suit your study. For example "STUDY1" and "STUDY1_LOB".

If only a single tablespace custom name is provided, then all large objects will be placed in that tablespace along with regular objects.

If both tablespace custon names are provided, large objects will then be automatically palced in the specified LOB tablespace.

If no custom names are needed, Oracle recommends using the default INFORM and INFORM_LOB names.

4. Create the TEMPBIG tablespace by running the SQL command:

```
CREATE BIGFILE TEMPORARY TABLESPACE TEMPBIG TEMPFILE '/u01/oracle/oradata/
trial1/tempbig.dbf' size 1000M reuse autoextend on next 500M;
```

Create a database instance for the Cognos Analytics content store

- Set up an Oracle database instance on the Content Store database server.

Set the minimum authentication protocol for connecting to the database instances

If you are installing Cognos Reporting, you must set the minimum authentication protocol allowed when connecting to the database instances. Without this configuration, the Cognos service does not start.

1. Locate the file sqlnet.ora on the database server. The default location of the file is %ORACLE_HOME%\NETWORK\ADMIN. If the file does not exist, create it.
2. Add the following parameter to the file:

   SQLNET.ALLOWED_LOGON_VERSION_SERVER=8

Set the initialization parameters for the database instances

When creating each Oracle InForm Oracle Instance, use the following initialization parameters in the init.ora file.

Parameter	Production server values	Development server values
memory_target (starting values)	Small trial: 1.5 GB Large trial: 10 GB Mega trial: 25 GB	Up to 80% of memory available to the Oracle database
db_block_size	16384	16384
db_files	Database dependent.	Database dependent.
open_cursors See **Note 1**.	150	150
processes See **Note 1**.	150 (or maximum number of concurrent processes)	50
session_cached_cursors See **Note 4**.	150	150
streams_pool_size	200M	200M
job_queue_processes	5 minimum: 1 job for each study (the job to update PF_HEARTBEAT table every minute in each study schema) and 1 job for each propagation, plus streams' minimum requirement of 2 and Oracle MTS's requirement of 1)	5 minimum: 1 job for each study (the job to update PF_HEARTBEAT table every minute in each study schema) and 1 job for each propagation, plus streams' minimum requirement of 2 and Oracle MTS's requirement of 1)
sessions	Derived: (1.1 * PROCESSES) + 5	Derived: (1.1 * PROCESSES) + 5

Parameter	Production server values	Development server values
log_archive_dest	Recommended: $ORADATA/ARCHIVE Defaults: $ORACLE_HOME/dbs	Recommended: $ORADATA/ARCHIVE Defaults: $ORACLE_HOME/dbs
_job_queue_interval	1	1
filesystemio_options See **Note 3**	SETALL	SETALL
workarea_size_policy See **Note 2.**	auto	auto
parallel_max_servers	3	3
optimizer_adaptive_features	FALSE	FALSE

> **Note:**
>
> These parameters might need to be adjusted depending on the demands on the database that are created by the Oracle InForm application and Streams.

> **Note:**
>
> Although AUTO is default, parameter is needed to ensure proper AMM functioning.

> **Note:**
>
> Enables both direct I/O and asynchronous I/O where possible.

> **Note:**
>
> Up to the value of the open_cursors parameter.

Create database users

In this section:

- Steps to create database users
- Required Oracle InForm database accounts
- Create a DBA user to use in the Oracle InForm User Management Tool installation
- Create a user for the Cognos Analytics content store database
- Create the PFCapAdmin user on the Content Store database server

Steps to create database users

1. Create the Oracle InForm database users on the Oracle InForm database server.

   For more information, see: Required Oracle InForm database accounts.

2. Create the Cognos PFCapAdmin and the Content database users on the Cognos Content Store database server.

   For more information, see:

   - Create a user for the Cognos Analytics content store database.
   - Create the PFCapAdmin user on the Content Store database server.

Required Oracle InForm database accounts

The following database accounts are required for each instance of the Oracle InForm Service:

- A DBA user for the Oracle InForm software. The default name of this user is pfdbadmin.
- A user that can connect to the Oracle InForm Admin database. The default name of this user is informadmin.

The recommended way to create these accounts is to select the options to create them in the Oracle InForm installation wizard. If you need to create either account at another time, you can run a script.

Default account name	Installation wizard checkbox	Script and where to get information
pfdbadmin	Prep Oracle For more information, see Step 2: Install the Oracle InForm core software on the InForm Application Server.	informprepora
informadmin	Install Admin DB For more information, see Step 2: Install the Oracle InForm core software on the InForm Application Server.	admindb

In a multiple server installation of the Oracle InForm software, you create the pfdbadmin and informadmin accounts on each server where you install the Oracle InForm software.

> **Note:**
>
> You need to create the pfadmin user only one time per database instance. Therefore, if you uninstall and reinstall the Oracle InForm software in the same database instance, you can leave the Prep Oracle checkbox deselected during the second installation.

Create a DBA user to use in the Oracle InForm User Management Tool installation

1. Create a DBA user and grant the user these privileges:
   - CREATE USER, ALTER USER, DROP USER WITH ADMIN OPTION
   - ALTER SYSTEM
   - CONNECT, RESOURCE WITH ADMIN OPTION
   - UNLIMITED TABLESPACE WITH ADMIN OPTION
   - CREATE TABLESPACE
   - ALTER TABLESPACE
   - DROP TABLESPACE
   - CREATE TABLE WITH ADMIN OPTION
   - QUERY REWRITE WITH ADMIN OPTION
   - CREATE SYNONYM WITH ADMIN OPTION
   - ADMINISTER DATABASE TRIGGER WITH ADMIN OPTION
   - CREATE TRIGGER WITH ADMIN OPTION
   - CREATE TYPE WITH ADMIN OPTION
   - CREATE VIEW WITH ADMIN OPTION
   - ANALYZE ANY WITH ADMIN OPTION
   - ANALYZE ANY DICTIONARY WITH ADMIN OPTION
   - CREATE ANY DIRECTORY WITH ADMIN OPTION
   - DROP ANY DIRECTORY WITH ADMIN OPTION
   - EXP_FULL_DATABASE
   - IMP_FULL_DATABASE
   - EXECUTE ON DBMS_DATAPUMP WITH GRANT OPTION
   - AQ_ADMINISTRATOR_ROLE WITH ADMIN OPTION
   - AQ_USER_ROLE WITH ADMIN OPTION
   - EXECUTE ON DBMS_AQADM WITH GRANT OPTION
   - EXECUTE ON DBMS_AQ WITH GRANT OPTION
   - EXECUTE ON SYS.DBMS_LOCK WITH GRANT OPTION
   - SELECT ON V_$DATABASE WITH GRANT OPTION
   - SELECT ON ALL_USERS WITH GRANT OPTION
   - SELECT ON ALL_TAB_PRIVS WITH GRANT OPTION
   - SELECT ON ALL_TAB_COLUMNS WITH GRANT OPTION
   - SELECT ON ALL_SOURCE WITH GRANT OPTION
   - SELECT ON ALL_DB_LINKS WITH GRANT OPTION
   - SELECT ON DBA_TABLESPACES WITH GRANT OPTION

- SELECT ON DBA_TABLES WITH GRANT OPTION
- SELECT ON DBA_INDEXES WITH GRANT OPTION
- EXECUTE ON SYS.UTL_RECOMP WITH GRANT OPTION
- EXECUTE ON UTL_HTTP WITH GRANT OPTION
- EXECUTE ON UTL_TCP WITH GRANT OPTION
- EXECUTE ON UTL_SMTP WITH GRANT OPTION
- EXECUTE ON UTL_URL WITH GRANT OPTION
- EXECUTE ON DBMS_RANDOM WITH GRANT OPTION
- EXECUTE ON DBMS_OBFUSCATION_TOOLKIT WITH GRANT OPTION
- EXECUTE ON SYS.DBMS_SQL WITH GRANT OPTION
- EXECUTE ON SYS.DBMS_LOB WITH GRANT OPTION
- EXECUTE ON SYS.UTL_FILE WITH GRANT OPTION
- EXECUTE ON SYS.DBMS_JOB WITH GRANT OPTION
- CREATE PROFILE
- CREATE MATERIALIZED VIEW WITH ADMIN OPTION
- CREATE PROCEDURE WITH ADMIN OPTION
- EXECUTE ON SYS.ORA12C_STRONG_VERIFY_FUNCTION
- EXECUTE ON SYS.DBMS_RANDOM

2. Validate the database connection:

   sqlplus *<created DBA user>@<tnsnames_alias>*

   At the prompt, enter the content user password.

   If the test is successful, a SQL prompt appears, showing that you have logged on to the database server. An unsuccessful test generates an ORA- error. Consult your database administrator for help in troubleshooting errors.

Create a user for the Cognos Analytics content store database

1. Verify that the character set for the content store database is Unicode.
2. Create a user and grant the user these roles and privileges:
   - Roles
     - CONNECT
     - RESOURCE
     - DEFAULT ROLE ALL

     > **Note:**
     >
     > The RESOURCE role is deprecated and may not be available in future Oracle Database releases.

   - Privileges
     - GRANT UNLIMITED TABLESPACE

- GRANT CREATE VIEW

> **Note:**
>
> For more information on suggested settings for creating the content store in Oracle, please review the IBM Cognos documentation.

3. Validate the database connection from the Cognos Analytics server by typing:

   sqlplus <contentuser_userid>@<tnsnames_alias>

   At the prompt, enter the content user password.

   If the test is successful, a SQL prompt appears, showing that you have logged on to the database server as the content store database user. An unsuccessful test generates an ORA- error. Consult your database administrator for help in troubleshooting errors.

Create the PFCapAdmin user on the Content Store database server

1. Create the user PFCapAdmin on the Content Store database server and grant the user these roles and privileges:
   - Roles
     - CONNECT
     - RESOURCE
2. Run the create_cap_table.sql script (located in the <Installation_Directory>\InForm\bin\DBOra\Reporting folder) to create a table called TRIAL_URLS within this user/schema.

   For more information, see create_cap_table.sql.

   > **Note:**
   >
   > The CAP schema can reside in the content store database instance or a separate database instance.

3. Validate the database connection by running the following command from the Cognos Analytics server or the Oracle InForm application server:

   ```
   sqlplus <contentuser_userid>@<connection_string>
   ```

   When prompted, enter the content user password.

If the test is successful, a SQL prompt appears, showing that you have logged on to the database server as the PFCapAdmin user. An unsuccessful test generates an ORA- error. Consult your database administrator for help in troubleshooting errors.

Multiple study tablespaces

By default, all study objects are created in the INFORM tablespace. In a production environment, you should distribute each study across multiple tablespaces for improved performance and for maintenance and monitoring. Before you install your study on a production server, set up the study-specific tablespaces.

The following table lists the Oracle table and index tablespaces to create, along with the required parameters. All tablespaces should be locally managed.

> **Note:**
>
> When creating the study tablespaces, use the names listed in the following table.

Table tablespace	Index tablespace	Size (MB)
%STUDY_NAME%_REF	%STUDY_NAME%_REF_IDX	120
%STUDY_NAME%_HIGH_TXN1	%STUDY_NAME%_HIGH_TXN1_IDX	300
%STUDY_NAME%_HIGH_TXN2	%STUDY_NAME%_HIGH_TXN2_IDX	500
%STUDY_NAME%_HIGH_TXN3	%STUDY_NAME%_HIGH_TXN3_DX	600
%STUDY_NAME%_HIGH_TXN4	%STUDY_NAME%_HIGH_TXN4_IDX	500
%STUDY_NAME%_TXN	%STUDY_NAME%_TXN_IDX	250

The remaining syntax for each of these tablespaces is:

```
CREATE TABLESPACE TABLESPACE_NAME
DATAFILE '<path_to_data_file>' SIZE <initial_size>
AUTOEXTEND ON NEXT <file_increment>
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

> **Note:**
>
> The STUDY_NAME portion of the tablespace name must conform to Oracle database name standards. It cannot start with a numeric character and cannot contain special characters. Additionally, because the Oracle database has an internal limit of 30 characters for a tablespace name, the study name must be 16 characters or fewer.

Oracle provides sample configurations for distributing your tablespaces using from one to five disks.

- Distributed Oracle InForm study tablespaces
- Creating the INFORM_LOB tablespace

Distributed Oracle InForm study tablespaces

In a production environment, Oracle recommends distributing tablespaces across multiple disks. The table in this topic presents a suggested model for Microsoft Windows database servers. For Linux database servers, the disk and partition names would follow the naming conventions for those environments.

In each configuration, it is recommended that you use the C: partition for the operating system and distribute the database and application components across the remaining partitions. Monitor your system to determine the optimal configuration.

- C: and D: are partitions on one disk.
- INFORM, SYSTEM, TEMPBIG are tablespaces.

> **Note:**
>
> TEMPBIG is the default temporary tablespace of BIGFILE type for the Oracle InForm application.

Physical disks	**0**	**N/A**	**1**	**2**	**3**	**4**
Logical disks	**C:**	**D:**	**E:**	**F:**	**G:**	**H:**
1 disk	Windows 2012	Oracle INFORM SYSTEM Study Tables Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs	N/A	N/A	N/A	N/A
2 disks	Windows 2012	Oracle INFORM SYSTEM Study Tables Redo logs	Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs	N/A	N/A	N/A
3 disks	Windows 2012	Oracle INFORM SYSTEM Redo logs	Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs	Study Tables	N/A	N/A
4 disks	Windows 2012	Oracle INFORM SYSTEM Redo logs	TEMPBIG Redo logs UNDOTBS Archive logs	Study Tables	Study Indexes	N/A
5 disks	Windows 2012	Oracle INFORM SYSTEM Redo logs	INFORM Redo logs UNDOTBS	Study Tables	Study Indexes	TEMPBIG Archive logs

Creating the INFORM_LOB tablespace

To create the INFORM_LOB tablespace, use the following syntax:

```
CREATE TABLESPACE INFORM_LOB
DATAFILE '<path_to_data_file>' SIZE <initial_size>
AUTOEXTEND ON NEXT <file_increment>
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

Tablespace name	Initial size/ autoextend size needed	File extent size/file maximum size	Comments
INFORM_LOB	200M	Make the initial size 200 megabytes, set AUTOEXTEND on and set MAXSIZE to UNLIMITED.	This tablespace is used to hold large objects.

Set up Transparent Database Encryption—Optional

For data-at-rest encryption, Oracle recommends and supports Transparent Data Encryption (TDE) on the database, which may require additional licensing fees.

For more information, see the Oracle Advanced Security Transparent Data Encryption (TDE) FAQ.

4

Installing and configuring the Oracle database client

In this section:

- Steps to install and configure the Oracle database client
- Register the Oracle.DataAccess.dll assembly
- Update the National Language Support registry settings on the Oracle database client
- Configure the database connection
- Validate the database connection

Steps to install and configure the Oracle database client

1. Make sure the correct version of Microsoft .NET Framework is installed on all the computers where the Oracle database client will be installed.

   For more information, see the *System Requirements guide*.

2. Download the appropriate Oracle Database client for your environment from the Oracle Database download website:
   - Oracle Database 19c Client (19.3) for Microsoft Windows x64 (64-bit)
     - **WINDOWS.X64_193000_client.zip**
   - Oracle Database 19c Client (19.3) for Microsoft Windows (32-bit)
     - **NT_193000_client.zip**

   > **Note:**
   >
   > Be sure to apply the appropriate Oracle client patches required for the Oracle InForm application servers. For more information, see the *System Requirements guide*.

3. Install the Oracle database client on the:
   - Oracle InForm Application Server
   - Cognos Content Manager Server
   - Cognos Report Server

   a. When prompted by the **Select Installation Type** dialog box, select **Custom**.

   b. In the **Available Product Components** dialog box,select the appropriate components for the Oracle InForm application. For more information, see the *System Requirements guide*.

> **Note:**
>
> The Cognos Content Manager Server and Cognos Report Server require the 32-bit version of the Oracle database client.

For more information, see your Oracle database documentation.

4. Register the ODP.NET assembly to the GAC on each server where you installed the Oracle database client.

   For more information, see Register the Oracle.DataAccess.dll assembly.

5. Update the registry settings on each server where you installed the Oracle database client.

   For more information, see Update the National Language Support registry settings on the Oracle database client.

6. Configure the database connection.

   For more information, see Configure the database connection.

7. Validate the database connection.

   For more information, see Validate the database connection.

Register the Oracle.DataAccess.dll assembly

You must register the Oracle.DataAccess.dll assembly to the Global Assembly Cache (GAC) for .NET version 4:

1. Open a command prompt as an Administrator.
2. Set a value for ORACLE_CLIENT_HOME if it is not defined.

   For example, set ORACLE_CLIENT_HOME=C:\app\oracle\product\19c\client_1

3. Navigate to %ORACLE_CLIENT_HOME%\ODP.NET\bin\4
4. Execute the following commands:

```
OraProvCfg.exe /action:config  /force /product:odp /
frameworkversion:v4.0.30319 /providerpath:%ORACLE_CLIENT_HOME%
\odp.net\bin\4\Oracle.DataAccess.dll
OraProvCfg.exe /action:gac /providerpath:%ORACLE_CLIENT_HOME%
\odp.net\bin\4\Oracle.DataAccess.dll
OraProvCfg.exe /action:gac /providerpath:%ORACLE_CLIENT_HOME%
\odp.net\PublisherPolicy\4\Policy.4.112.Oracle.DataAccess.dll
OraProvCfg.exe /action:gac /providerpath:%ORACLE_CLIENT_HOME%
\odp.net\PublisherPolicy\4\Policy.4.121.Oracle.DataAccess.dll
OraProvCfg.exe /action:gac /providerpath:%ORACLE_CLIENT_HOME%
\odp.net\PublisherPolicy\4\Policy.4.122.Oracle.DataAccess.dll
```

Update the National Language Support registry settings on the Oracle database client

The following registry settings are required for the Oracle client home on the Oracle InForm Application Server, the Cognos Report Server, and the Cognos Content Manager Server.

The entries are in the following Windows Registry key:

```
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLE\<Oracle_client_home_key>
```

Option	Value
NLS_LANG	American_America.AL32UTF8
NLS_SORT	JAPANESE_M

Configure the database connection

To configure the Oracle client on the Oracle InForm Application Server, the Cognos Report Server, and the Cognos Content Manager Server to connect with the database server:

- Update the **tnsnames.ora** file located on the application server so that it contains the alias that is used to establish a connection to the database server.

> **Note:**
>
> When installing the Oracle InForm software, you enter the alias specified in the tnsnames.ora file as the database connect string.

Validate the database connection

To validate the database connection from the Oracle InForm Application Server, the Cognos Report Server, and the Cognos Content Manager Server

- Type the following command at the Windows command prompt:

  ```
  sqlplus pfdbadmin_userID@tnsnames_alias
  ```

  When prompted, enter the pfdbadmin password.

  The default user name for the pfdbadmin database account is pfdbadmin.

If the test is successful, a SQL prompt appears, showing that you have logged on to the database server as the pfdbadmin user. An unsuccessful test generates an ORA- error. Consult your database administrator for help in troubleshooting errors.

> **Note:**
>
> Problems with connections can sometimes be attributed to the database server that contains a single Ethernet card with two nodes. Disabling one of the ports from the card usually solves the problem. Consult your system administrator for help in resolving errors.

Part II

Preparing the application servers

In this chapter:

- Preparing the Oracle InForm Application Server
- Preparing the Reporting application servers
- Enable Secure Sockets Layer (SSL)

5

Preparing the Oracle InForm Application Server

In this section:

- Steps to prepare the Oracle InForm Application Server
- Set up Oracle InForm Adapter
- Set up Oracle InForm Publisher
- Install the sample study
- Qualify the installation

Steps to prepare the Oracle InForm Application Server

All InForm installations use an Oracle InForm Application Server.
To prepare the Oracle InForm Application Server:

- Step 1: Verify the Oracle database client on the Oracle InForm Application Server
- Step 2: Install the Oracle InForm core software on the InForm Application Server
- Step 3: Set up Oracle XA Transaction Support
- Step 4: Set up a skeletal study
- Step 5: Install the Oracle Central Designer certificate
- Step 6: Update the DomainSuffix entry for the AuthenticationFilter registry key on the Oracle InForm Application Server—Optional
- Step 7: Enable SSL on the Oracle InForm Application Server—Optional
- Step 8: Create a sending address for automated study deployment confirmation messages
- Step 9: Enable network access rights for automated study deployments

Step 1: Verify the Oracle database client on the Oracle InForm Application Server

Before you begin, ensure that you have followed the instructions in Installing and configuring the Oracle database client to make sure the following requirements are met on the Oracle InForm Application Server:

- The Oracle database client is installed.
- The language registry settings are updated.
- The database connection is configured and verified.

Step 2: Install the Oracle InForm core software on the InForm Application Server

You install the Oracle InForm core software on the Oracle InForm Application Server only.

1. Verify you have installed the correct components required for the Oracle InForm Application Server, such as IIS components or the Java Runtime Environment.

   For more information, see the *System Requirements guide*.
2. Log in to the application server as an administrator.
3. Download and extract the Oracle InForm product archive from the Oracle Download Center.
4. Navigate to the location of the installation files, and double-click **setup.exe**.

   The Choose Setup Language page appears.
5. Select either **English** or **Japanese** for the language that you want the wizard to use during the installation.

   > **Note:**
   >
   > Configuration of the language used for application pages occurs later in the installation.
6. Click **Next**.

   The Preparing Setup progress page appears. When setup is complete, the Welcome page appears.
7. Click **Next**.

   The Choose Destination Location page appears.
8. Accept the default location, or click **Change** and browse to the desired location.
9. Click **Next**.

   The Setup Type page appears.
10. Choose one of the following options, and click **Next**.
    - Complete—Installs all the application components:
      - Oracle InForm
      - Oracle InForm Adapter
      - Oracle InForm Publisher
      - Data Export
      - Data Import
      - Performance Monitor
      - Oracle InForm Portal
      - Reporting Configuration
    - Custom—Allows you to opt out of installing Reporting Configuration.

    If you select **Complete**, the Select Product Locale page appears.

If you select **Custom**, the Select Features page appears. Make your choices and click **Next**. The Select Product Locale page appears.

11. Select either **English** or **Japanese** for the Product Locale for the installation.

    This determines the language in which the Oracle InForm application pages appear after installation.

12. Click **Next**.

    The Select the Authentication Scheme page appears.

13. Select **Native Authentication**.

14. Click **Next**.

    The Select the Oracle Home for Oracle InForm page appears. The Oracle Homes you configured during your Oracle client installation appear on the page with the prefix **KEY_** to indicate the Windows registry key.

15. Select the entry for the Client Oracle Home registry key.

16. Click **Next**.

    The Database Configuration page appears.

17. Enter values or accept the defaults for the configuration fields, and click **Next**.

Field	Description
Local Machine User	The name of the local machine user. The default is pfUSR_<*machinename*>.
Local Machine User Password	The password for the local machine user. **Note:** The password for the local machine user must comply with the password requirements defined in your domain password policy.
Database Connection String	String that the Oracle InForm server uses to connect to the Oracle instance for the study.
Oracle DBA User	The name of the Oracle account created during the Oracle database installation process. This value is only used if you select the **Prep Oracle** checkbox to create the pfdbadmin account. **Note:** Do not use DB users with the sysdba role, as this will cause the InForm installation to fail.
Oracle DBA Password	Password of the Oracle account created during the Oracle database installation process. This value is used only if you select the **Prep Oracle** checkbox to create the pfdbadmin account.

Field	Description
Admin Database Username	User name that is required to access the Admin database.
Admin Database Password	Password that is required to access the Admin database. The password is case-sensitive. Do not include a hyphen (-) character in the password. The password must comply with the requirements of the complexity verification function configured for the database.
InForm System Username	User name for the study database. If this is a new Oracle InForm installation or if you change the user name from the default during the installation, select the **Prep Oracle** checkbox. This instructs the Oracle InForm software installation to create the Oracle InForm account using the user name and password you specify.
InForm System Password	Password for the study database user. The password is case-sensitive. Do not include a hyphen (-) character in the password. The password must comply with the requirements of the complexity verification function configured for the database.
Install Admin DB	If selected, creates the: • informadmin user, using the Admin Database Username and Admin Database Password. • Oracle InForm Admin database for non-clinical data, such as users, sites, and configuration information. **Note:** You must select this checkbox for both installation and upgrades.
Prep Oracle	If selected: • Runs the **informprepora** command, which creates the study database user, using the Oracle InForm System Username and InForm System Password. If not selected: • Verifies the study database user and password. **Note:** You need to select the **Prep Oracle** checkbox only the first time you install the InForm software on an instance.

If any of the information is incorrect (for example, the Database Connection String), a Database Configuration Error window appears.

18. If the Database Configuration Error window appears, click **Back** to return to the Database Configuration page to fix the incorrect information, and click **Next** when changes are complete.

    The Ready to Install the Program page appears.

    The installation checks both the .NET framework and ODAC, and if an upgraded version is required, a message appears.

19. If you need to upgrade the .NET framework or ODAC, click **Cancel** to make the necessary corrections, and click **Yes** when the Exit Setup dialog box appears.

    If you exited the installation at the previous step, upgrade the .NET framework or ODAC version, and restart the installation wizard.

20. Click **Install**.

    The Setup Status page appears. The progress of the installation is indicated on the screen.

21. If your system does not have the required hardware or software components, the **Requirements Not Met** message appears. Click **Cancel** to make the necessary corrections, and click **Yes** when the Exit Setup dialog box appears.

    If you exited the installation at the previous step, update the server with the required hardware or software components, and restart the installation wizard.

22. When the setup is finished, the Oracle InForm Reboot page may appear.

    Select **Yes** or **No** to indicate whether you want to reboot at this time, and click **Finish**. After rebooting, the final configuration process continues.

23. When the system configuration is finished, click **Finish** on the InstallShield Wizard Complete page.

If any errors occur during installation, the default location where error logs are saved is C:\Program Files (x86)\Oracle HS \InForm<*release*>\InForm <*release*>.<*build_number*>\InstallLogs. The file name for the error logs is Install_yyyy-mm-dd_hh-mm-ss.log.

Step 3: Set up Oracle XA Transaction Support

To set up the Oracle database to support MTS transactional components, enable Oracle XA Transaction Support. You must enable Oracle XA Transaction Support for both development and production environments.

1. Run the **mtsora102** command after the Oracle InForm installation is completed.

   For more information, see mtsora102.

2. Run the **oramtsadmin.sql** command from the ...\oramts\admin folder of the Oracle Client home (where Oracle Services for Microsoft Transaction Server was installed).

   You must run it as a user with the SYSDBA role. Run the script against all Oracle instances connected to the Oracle InForm Application Server.
   For more information, see oramtsadmin.sql.

> **Note:**
>
> In an environment with more than one database, run the mtsora102 command on each InForm database server. Restart the server if the script changes any of the MSDTC\Security or MSDTC\XADLL registry keys.

Step 4: Set up a skeletal study

Before you can deploy a study, you must set up the basic framework to hold your study design and data. This framework is called a skeletal study. All the commands used to create the skeletal study are run from a Windows command prompt.
The following procedure sets up a skeletal study named pfst on the server demo.

1. Create the Oracle InForm server that will host your studies:

   ```
   pfadmin setup server demo
   ```

2. Create a study within your server:

   ```
   pfadmin setup trial pfst demo /db TRIAL1
   ```

   When prompted enter the:

   - Study DB user ID.
   - Password to associate with the study user. The password must comply with the requirements of the complexity verification function configured for the database.

   This command creates your study, and associates it with a database instance.

3. Set up the Oracle InForm application for your study:

   ```
   dbsetup pfst base
   ```

   This command installs the components of the Oracle InForm application for your study.

4. Copy the Oracle InForm folder from the Oracle Central Designer image to the Oracle InForm application server.
5. Run **InstallCentralDesignerFiles.cmd**, located in the Oracle Central Designer image Oracle InForm folder.

   The InstallCentralDesignerFiles command installs and registers the Oracle Central Designer rules engine, as well as other files the Oracle InForm application uses for automated deployments.

> **Note:**
>
> You only need to run the InstallCentralDesignerFiles command one time on the Oracle InForm application server. After the Oracle Central Designer rules engine is installed, it can be used by all the Oracle InForm studies on the server.

6. Specify a TrialType for your study:

```
pfadmin config trial pfst /TrialType QA
```

   The TrialType options are:

   - Live—Production environment.
   - UAT—User acceptance environment.
   - QA—Product test environment.
   - TRN—Training environment.
   - Dev—Product development environment.

   For automated deployments to work, the TrialType must be the same as the deployment instance type set in Oracle Central Designer.

7. Specify whether your study requires approvals from the Oracle Central Designer application in order to autodeploy a study deployment package.

```
pfadmin config trial pfst /TrialApproval FALSE
```

   The TrialApproval options are:

   - True—Approvals required.
   - False—Approvals not required.

   > **Note:**
   >
   > In order to deploy a deployment package from within the Oracle InForm user interface, the TrialApproval setting must be False.

8. Specify a backup folder to be used during the automated deployment process.

```
pfadmin config trial pfst /DeployBackupFolder /u01/app/dbbackup
```

   The Oracle InForm application uses this folder to store a backup of the database during the deployment process. If the deployment fails for any reason, the application uses the data in this folder to roll back to the state it was in prior to the deployment. The deployment backup folder:

   - Refers to a folder on the database server.
   - The folder must exist on the database server, otherwise the deployment will fail.

9. Specify the port numbers your study will use to communicate with the following web services:

   - DeploymentService—The port number to communicate with the Oracle Central Designer application for automated deployments.
   - AuthService—The port number to communicate Reporting and Analysis module to authorize Oracle InForm and reporting users.

- ODMSubmitService—The port number to communicate with requests to the Clinical Data API.

```
pfadmin config webservice pfst DeploymentService ADD HTTP:14040
pfadmin config webservice pfst AuthService ADD HTTP:14041
pfadmin config webservice pfst ODMSubmitService ADD HTTP:14042
```

10. Start the Oracle InForm server and study using the following commands, in the order listed:

```
pfadmin start server demo
pfadmin start trial pfst
```

11. Activate the system user for your study:

```
pfadmin setserver systempw pfst
```

When prompted, enter a password for the system user.

You can now log in to your study, deploy a study, and start loading data. For more information, see Deploy your study, and the *Study and Reporting Setup Guide*.

Step 5: Install the Oracle Central Designer certificate

You must install a certificate on the Oracle InForm application server to verify that every deployment package you receive from the Oracle Central Designer server comes from a trusted source.

1. Copy the public key file for the certificate that is installed on the Oracle Central Designer server to a folder on the Oracle InForm application server.
2. Select **Start** > **Run**

   The Run dialog box appears.
3. Enter the following command, and click **OK**:

```
mmc
```

   The Microsoft Management Console appears.
4. Select **File** > **Add/Remove Snap-in**.

   The Add or Remove Snap-in window appears.
5. Select Certificates and click **Add**.
6. Click **OK**.
7. In the folder pane, expand Certificates, and select Root Certificates.
8. Select **Actions** > **All Tasks** > **Import**.

   The Certificate Import Wizard appears.
9. When prompted:
   - Browse to the location of the public key file.
   - Specify the Certificate Store for the certificate.

You can accept the default (Trusted Root Certificate Authorities), or select a different store for the certificate.

10. Click **Finish**.

> **Note:**
>
> When you perform this procedure to replace an expired certificate, do not remove the public key of the old certificate if you want to deploy packages that were previously deployed using the expired certificate.

Step 6: Update the DomainSuffix entry for the AuthenticationFilter registry key on the Oracle InForm Application Server—Optional

If you are installing Cognos Reporting, you must update the DomainSuffix entry for the Oracle AuthenticationFilter registry key if any of the following is true on the Oracle InForm Application Server:

- You use proxy servers for the Cognos Gateway Server and the Oracle InForm Application Server.
- The fully qualified domain name (FQDN) for either server does not end with a common domain suffix.
  The FQDN is registered in the Oracle AuthenticationFilter DomainSuffix entry during installation of the Oracle InForm Application Server and the Cognos Gateway Server. If the FQDN for both installations ends in a common domain suffix such as **.net**, **.com**, **.org**, **.edu,** or **.gov** (with or without a country name like **.uk** or **.au**), you do not need to update the DomainSuffix entry unless you use proxy servers.
- The FQDN has just two levels (for example: <*servername*>.com).

1. In the Windows Registry Editor, navigate to the following Windows Registry key:

   HKEY_LOCAL_MACHINE\SOFTWARE\ORACLEHS\AuthenticationFilter

2. Update the entry for **DomainSuffix**:

   a. Right-click the entry, and select **Modify**.

      The Edit String dialog box appears.

   b. Enter the new value in the **Value Data** field.

      - If you use proxy servers, or if the FQDN for either server does not end with a common domain suffix, remove every part of the domain suffix that is not identical on both computers. For example, if the FQDN includes <*servername*>.<*companyname*>.co.uk, after the edit, the entry would be <*companyname*>.co.uk.
      - If the Oracle InForm software and Cognos Analytics are installed on the same machine, and the FQDN has only two nodes such as<*servername*>.com, you must include the server name and the domain suffix in the entry. In the above example, the entry would read <*servername*>.co.uk.

   c. Click **OK**.

3. Exit the **Windows Registry Editor**.
4. Restart IIS.
5. On the Oracle InForm Application Server, restart the Oracle InForm Service.

Step 7: Enable SSL on the Oracle InForm Application Server—Optional

Enabling SSL is optional. For more information, see About enabling Secure Sockets Layer (SSL).

Step 8: Create a sending address for automated study deployment confirmation messages

The Oracle InForm application requires a valid email sender address in order to send automated study deployment messages. This email address is stored in the PFMngrExecutionPlan registry key on the Oracle InForm application server.
Use the following command to create the PFMngrExecutionPlan registry key and populate the EmailSender subkey:

```
pfadmin config service /emailsender <validemailaddress>
```

Where:

- validemailaddress—The address from which emails are sent during auto-deployment.

For example:

```
pfadmin config service /emailsender no-reply@myexamplehost.com
```

- (Required) <Enter the first step.>

Step 9: Enable network access rights for automated study deployments

To enable the network access rights for automated deployments, modify the Local Security Policy on the Oracle InForm application server:

1. Click **Start** > **Administrative Tools** > **Local Security Policy**.

   The Local Security Policy window appears.
2. Select **Local Policies** > **Security Options**.
3. In the **Policy** pane, right-click **Network Access: Do not allow storage of passwords and credentials for network authentication**, and select **Properties**.

   The Network Access: Do not allow storage of passwords and credentials for network authentication Properties window appears.
4. Select **Disabled**.
5. Click **OK**.

Set up Oracle InForm Adapter

The Oracle InForm Adapter feature provides interfaces to web services that support the secure transfer of data between InForm studies and either Oracle products (such as the Oracle Central Coding application) or third-party products and custom applications.

For more information, see the *Configuration Guide for Oracle InForm Adapter*.

- Set up the Oracle InForm Adapter environment
- Configuring username/password security
- Configuring X.509 digital certificates
- Post-installation tasks for Oracle InForm Adapter

Set up the Oracle InForm Adapter environment

- Create the Oracle InForm Adapter user
- Configure the Oracle InForm Adapter services

Create the Oracle InForm Adapter user

Before Oracle InForm Adapter can be properly configured, you need to create an Oracle InForm Adapter user:

1. Create an **.xml** file with the following structure:

```
<?xml-model href="schema0.xsd" ?>
<IAConfigContract>
<DATABASE>
<INSTALL>
<InformAdapterUser>
<UserName>InFormAdapterUID</UserName>
</InformAdapterUser>
<SystemUser>
<UserName>System</UserName>
</SystemUser>
<TableSpace>InForm</TableSpace>
</INSTALL>
<TnsEntry>trial1</TnsEntry>
</DATABASE>
</IAConfigContract>
```

2. Specify the following values within the **.xml** file:
   - **UserName** (under **<InFormAdapterUser>**)—Name of the Oracle InForm Adapter user. "InFormAdapterUID" used as an example in the previous step.
   - **UserName** (under **<SystemUser>**)—Name of the Oracle InForm Adapter user with privileges to create an Oracle InForm Adapter user. "System" used as an example in the previous step.
   - **TableSpace**—Table space that the Oracle InForm Adapter user is creating. "InForm" used as an example in the previous step.
   - **TnsEntry**—Connection information for the system and the Oracle InForm Adapter user. "trial1" used as an example in the previous step.
3. Navigate to the \Inform Adapter\InstallScript\IAConfiguration\bin> directory and run the **PhaseForward.InFormAdapter.IAConfigurationConsole.exe** file.
4. Enter the Oracle InForm Adapter user password when prompted.
5. Enter the Oracle InForm Adapter system password when prompted.

Configure the Oracle InForm Adapter services

After creating an Oracle InForm Adapter user, you must configure the For Oracle InForm Adapter services:

1. Create an **.xml** file with the following structure:

```
<IAConfigContract>
<ADAPTERAPPLICATION>
<TargetAdapterApplication>installationsettings</TargetAdapterApplication>
<Action>Install</Action>
<Database>
<Name>InFormAdapterConfiguration</Name>
<Name>Storage</Name>
<Name>Auditing</Name>
<Name>JobScheduler</Name>
<Name>Locking</Name>
<Name>SystemSettings</Name>
<Name>UserSettings</Name>
</Database>
<InformAdapterUser>
<UserName>InFormAdapterUID</UserName>
</InformAdapterUser>
<Tnsname>trialpdb1</Tnsname>
<Customeruri>www.testing.org</Customeruri>
<WebElement>
<WebsiteName>INFORMADAPTER_SITE</WebsiteName>
<HttpPort>14103</HttpPort>
<HttpsPort>14104</HttpsPort>
<AppPool>IAAppPool</AppPool>
<RootVirtualdirectory>informadapter</RootVirtualdirectory>
</WebElement>
<Application>
<Name>ADAPTERADMINSERVICE</Name>
<Name>CENTRALADMINISTRATION</Name>
<Name>CODINGSERVICE</Name>
<Name>DISCREPANCYSERVICE</Name>
<Name>ODMSERVICE</Name>
<Name>SERVERADAPTER</Name>
<Name>TRANSACTIONADAPTER</Name>
</Application>
</ADAPTERAPPLICATION>
</IAConfigContract>
```

> **Note:**
>
> Do not change any of the default values under the **<Database>** section.

> **Note:**
>
> Include the **<WebElement>** section only if you want to create a new website.

2. Specify the following values within the **.xml** file:
   - **UserName** (under **<InFormAdapterUser>**)—Name of the Oracle InForm Adapter user. Should be the same name used during the creation of the Oracle InForm Adapter user, in the previous section. "InFormAdapterUID" used as an example in the previous step.
   - **Tnsname**—Connection for the Oracle InForm Adapter user. "trialpdb1" used as an example in the previous step.
   - **Customeruri**—URI that is configured in settings. "www.testing.org" used as an example in the previous step.
   - **WebsiteName** (under **<WebElement>**)—Name for the website for Oracle InForm Adatper. "INFORMADAPTER_SITE" used as an example in the previous step.
   - **RootVirtualdirectory** (under **<WebElement>**)—Name for the root virtual directory for InForm Adatper. "informadapter" used as an example in the previous step.
3. Navigate to the \Inform Adapter\InstallScript\IAConfiguration\bin> directory and run the **PhaseForward.InFormAdapter.IAConfigurationConsole.exe** file.
4. Enter the Oracle InForm Adapter user password when prompted.

Configuring username/password security

The SOAP header contains elements for the user name and password for ODM Export interface methods, and operations requests. The SOAP body contains an attribute for the study name. The user name must represent an active account in the Oracle InForm software and the password must be valid.

For more information about the SOAP header and body, the ODM Export interface, and the , see the *Interfaces Guide*.

- ODM Export interface—configuring username/password security
- —configuring username/password security
- Coding interface—configuring username/password security

ODM Export interface—configuring username/password security

In addition to including the correct SOAP header and body information in the ODM method call, you must also perform this procedure to configure username/password security for the ODM Export interface.

For information about the SOAP header and body, see the *Interfaces Guide*.

- Deployment types - ODM Export
- Choosing the deployment type

Deployment types - ODM Export

The Oracle InForm Adapter ODM Export interface supports network access directly to the server, network access through a load balancer, and local access. After you run the installation, you run a script at the command line, in which you state the type of deployment you want to use. For more information, see Choosing the deployment type.

Deployment name	HTTP / HTTPS	Authentication?	URL / SOAP study matching?
Default	HTTPS	Yes	No
Load balanced	HTTP *	Yes	Yes
LAN access	HTTP	No	No

* Represents the data sent by the load balancer to the API.

- Default deployment
- Load balanced deployment
- LAN access deployment

Default deployment

Default deployment is configured automatically by the product installer and allows clients to securely access the server through the top-level virtual directory. An SSL certificate must be installed for the Oracle InForm Adapter virtual directory and the request must include a valid user name/password used to authenticate the requests.

Example client URL:

```
https://myserver/InFormAdapter/ODMWCF/ODMService.svc
```

Load balanced deployment

Load balanced deployment is configured through modifications to the web.config file and is intended for use when exposing the API through the use of a network load balancer. Requests must include a valid user name/password. For more information, see Choosing the deployment type.

Example client URL:

```
https://myserver/InFormAdapter/ODMWCF/ODMService.svc
```

LAN access deployment

LAN access deployment allows clients on the same network-secured LAN to access the API without security.

Example client URL:

```
http://myserver/InFormAdapter/ODMWCF/ODMService.svc
```

Choosing the deployment type

The Oracle InForm Adapter ODM Export interface comes with:

- Three variations of the web.config file to support the different configurations that are used to deploy provisioning.
- The utility WebConfigFileSelector.cmd, which you use to set the appropriate config file for your configuration type.

To select the deployment type:

1. Open a Command Prompt window and change to the <InForm_Adapter_installation_directory>\ODMWCF\ directory.
2. Issue the following command:

```
WebConfigFileSelector.cmd CONFIGURATION
```

where CONFIGURATION specifies the deployment type.

For example:

```
WebConfigFileSelector.cmd F5
```

The utility replaces the InFormAdapter\ODMWCF\web.config file with one of the following files.

Deployment type	Deployment type configuration option	Config file	Details
Default	SECURE	Web_secure.config	• Secure configuration for client requests sent over the Internet. • Supports HTTPS transport using SOAP 1.2. • Requires a Username Token in the SOAP Security header for providing the user name and password credentials to authenticate a request.
Load balanced	F5	Web_secure_F5.config	• Secure configuration for client requests sent over the Internet using a network load balancer. • Supports HTTPS into the network load balancer and HTTP out of it using SOAP 1.2. • Requires a Username Token in the SOAP Security header for providing the user name and password credentials to authenticate a request.

Deployment type	Deployment type configuration option	Config file	Details
LAN access	UNSECURE	Web_nosecurity.config	• Unsecure configuration for client requests sent over a LAN from behind a firewall. • Supports HTTP transport and SOAP 1.2. • Does not perform request authentication.

—configuring username/password security

In addition to correct configuration of the SOAP header and body in the requests of operations, you must select the type of deployment to use.

For information about the SOAP header and body, see the *Interfaces Guide*.

- Deployment types
- Choosing the deployment type

Deployment types

The Oracle InForm Adapter supports network access directly to the server, network access through a load balancer, and local access. After you run the installation, you run a script at the command line, in which you state the type of deployment you want to use. For more information, see Choosing the deployment type.

Deployment name	HTTP / HTTPS	Authentication?	URL / SOAP study matching?
Default	HTTPS	Yes	No
Load balanced	HTTP *	Yes	Yes
LAN access	HTTP	No	No

* Represents the data sent by the load balancer to the API.

- Default deployment
- Load balanced deployment
- LAN access deployment

Default deployment

Default deployment is configured automatically by the product installer and allows clients to securely access the server through the top-level virtual directory. An SSL certificate must be installed for the discrepancy virtual directory and the request must include a valid user name/password used to authenticate the requests.

Example client URL:

```
https://myserver/InFormAdapter/DiscrepancyService/DiscrepancyService.svc
```

Load balanced deployment

Load balanced deployment is configured through modifications to the web.config file and is intended for use when exposing the API through the use of a network load balancer. Requests must include a valid user name/password. For more information, see Choosing the deployment type.

Example client URL:

```
https://myserver/InFormAdapter/DiscrepancyService/DiscrepancyService.svc
```

LAN access deployment

LAN access deployment allows clients on the same network-secured LAN to access the API without security. For Oracle-hosted studies, the study name is included in the URL, making each study URL unique.

Example client URL:

```
http://myserver/InFormAdapter/DiscrepancyService/DiscrepancyService.svc
```

Choosing the deployment type

Oracle InForm Adapter comes with:

- Three variations of the web.config file to support the different configurations that are used to deploy provisioning.
- The utility WebConfigFileSelector.cmd, which you use to set the appropriate config file for your configuration type.

To select the deployment type:

1. Open a Command Prompt window and change to the <InForm_Adapter_installation_directory>\ODMWCF\ directory.
2. Issue the following command:

   ```
   WebConfigFileSelector.cmd CONFIGURATION
   ```

   where CONFIGURATION specifies the deployment type.

   For example:

   ```
   WebConfigFileSelector.cmd F5
   ```

   The utility replaces the InFormAdapter\DiscrepancyService\web.config file with one of the following files.

Deployment type	Deployment type configuration option	Config file	Details
Default	SECURE	Web_secure.config	• Secure configuration for client requests sent over the Internet. • Supports HTTPS transport using SOAP 1.2. • Requires a Username Token in the SOAP Security header for providing the user name and password credentials to authenticate a request.
Load balanced	F5	Web_secure_F5.config	• Secure configuration for client requests sent over the Internet using a network load balancer. • Supports HTTPS into the network load balancer and HTTP out of it using SOAP 1.2. • Requires a Username Token in the SOAP Security header for providing the user name and password credentials to authenticate a request.
LAN access	UNSECURE	Web_nosecurity.config	• Unsecure configuration for client requests sent over a LAN from behind a firewall. • Supports HTTP transport and SOAP 1.2. • Does not perform request authentication.

Coding interface—configuring username/password security

In addition to including the correct SOAP header and body information in the requests, you must also perform this procedure to configure username/password security for the Coding interface.

For information about the SOAP header and body, see the *Interfaces Guide*.

- Deployment types
- Choosing the deployment type

Deployment types

The Oracle InForm Adapter Coding interface supports network access directly to the server, network access through a load balancer, and local access. After you run the installation, you run a script at the command line, in which you state the type of deployment you want to use. For more information, se Choosing the deployment type.

Deployment name	HTTP / HTTPS	Authentication?	URL / SOAP study matching?
Default	HTTPS	Yes	No
Load balanced	HTTP *	Yes	Yes
LAN access	HTTP	No	No

* Represents the data sent by the load balancer to the API.

- Default deployment
- Load balanced deployment
- LAN access deployment

Default deployment

Default deployment is configured automatically by the product installer and allows clients to securely access the server through the top-level virtual directory. An SSL certificate must be installed for the Oracle InForm Adapter virtual directory and the request must include a valid user name/password used to authenticate the requests.

Example client URL:

```
https://myserver/InFormAdapter/CodingService/CodingService.svc
```

Load balanced deployment

Load balanced deployment is configured through modifications to the web.config file and is intended for use when exposing the API through the use of a network load balancer. Requests must include a valid user name/password. For more information, seeChoosing the deployment type.

Example client URL:

```
https://myserver/InFormAdapter/CodingService/CodingService.svc
```

LAN access deployment

LAN access deployment allows clients on the same network-secured LAN to access the API without security. For Oracle-hosted studies, the study name is included in the URL, making each study URL unique.

Example client URL:

```
http://myserver/InFormAdapter/DiscrepancyService/DiscrepancyService.svc
```

Choosing the deployment type

The Oracle InForm Adapter coding interface comes with:

- Three variations of the web.config file to support the different configurations that are used to deploy provisioning.
- The utility WebConfigFileSelector.cmd, which you use to set the appropriate config file for your configuration type.

To select the deployment type:

1. Open a Command Prompt window and change to the <InForm_Adapter_installation_directory>\ODMWCF\ directory.
2. Issue the following command:

```
WebConfigFileSelector.cmd CONFIGURATION
```

where CONFIGURATION specifies the deployment type.

For example:

```
WebConfigFileSelector.cmd F5
```

The utility replaces the InFormAdapter\CodingService\web.config file with one of the following files.

Deployment type	Deployment type configuration option	Config file	Details
Default	SECURE	Web_secure.config	• Secure configuration for client requests sent over the Internet. • Supports HTTPS transport using SOAP 1.2. • Requires a Username Token in the SOAP Security header for providing the user name and password credentials to authenticate a request.

Deployment type	Deployment type configuration option	Config file	Details
Load balanced	F5	Web_secure_F5.config	• Secure configuration for client requests sent over the Internet using a network load balancer. • Supports HTTPS into the network load balancer and HTTP out of it using SOAP 1.2. • Requires a Username Token in the SOAP Security header for providing the user name and password credentials to authenticate a request.
LAN access	UNSECURE	Web_nosecurity.config	• Unsecure configuration for client requests sent over a LAN from behind a firewall. • Supports HTTP transport and SOAP 1.2. • Does not perform request authentication.

Configuring X.509 digital certificates

By default, certificates for interfaces that use certificate authentication are installed in the Local Computer location in the Personal store on the server.

The Coding, ODM Export, and Discrepancy interfaces support multiple types of authentication. For each interface that you are configuring for certificate authentication:

1. Open a Command Prompt window and change to:

   ```
   <installation_directory>\<interface_name>
   ```

2. Issue the following command:

   ```
   WebConfigSelector.cmd F5CERT
   ```

- Edit CertificationStoreName in the web.config file — Optional

Edit CertificationStoreName in the web.config file — Optional

If the certificate is not installed under the Personal store, you must edit the CertificationStoreName value in the web.config file to point to the certificate location:

1. Navigate to:

   `<installation_directory>\<interface_name>\web.config`

2. Open the web.config file in a text editor.
3. Set the CertificationStoreName value to the certificate location.
4. Save web.config and exit the editor.
5. Issue the following command:

   WebConfigSelector.cmd F5CERT

Post-installation tasks for Oracle InForm Adapter

Perform the following tasks as needed for your environment:

- Configuring the Oracle InForm Server Adapter
- Configuring the Oracle InForm Adapter interfaces
- Increasing the timeout period for ASP.NET
- Enabling XA transactions
- Enabling TLS
- Register Trial Tool

Configuring the Oracle InForm Server Adapter

In this section:

- Start the Server Adapter service
- Transaction detection settings for the Oracle InForm Server Adapter Service
- Including or excluding studies from processing

Start the Server Adapter service

By default, the Server Adapter service is set to manual. To use the ODM Export interface, the Server Adapter service must be running. Start the service manually after you install the Oracle InForm Adapter software.

For more information, see Oracle InForm Server Adapter services.

Transaction detection settings for the Oracle InForm Server Adapter Service

You can set the amount of time (in seconds) that the InFormServerAdapterService will allow between transaction detection processing by editing the **InFormServerAdapterService.config** file.

To specify a transaction detection interval:

- Edit the UpdateInterval entry:

  ```
  <UpdateInterval>300</UpdateInterval>
  ```

The default setting is 300, indicating that the InFormServerAdapterService will wait for five minutes between transaction detection processing.

Including or excluding studies from processing

You can configure the Oracle InForm Server Adapter (ISA) so that only specific studies on the Oracle InForm server are processed. This behavior might improve performance if the Oracle InForm server contains large studies or multiple studies.

You can specify:

- The maximum number of studies to be processed at one time, by specifying the number of threads that can be running at one time.
- A list of studies to include or exclude from processing, based on the study prefix, suffix, or full name.

To configure the Oracle InForm Server Adapter service:

1. On the Oracle InForm server, use the Windows Administrative Tools to stop the Oracle InForm Server Adapter service.
2. In a text editor, open the **InFormServerAdapterService.config** file.
3. Use TrialThreadPool to specify the number of threads to process the studies on the Oracle InForm server. For more information, see the TrialThreadPool comments in the config file.
4. To include or exclude studies from processing, uncomment the appropriate InclusionCondition or ExclusionCondition line and specify a value. For more information, see the InclusionList comments in the InFormServerAdapterService.config file.

Configuring the Oracle InForm Adapter interfaces

Each Oracle InForm Adapter web service has two configuration files:

- The application configuration file
- The web.config file

The application configuration file

Each web service and Oracle InForm Adapter Windows service has an application configuration file. This file contains product-specific Oracle application configuration settings.

The application configuration files are in the \bin\config directories for the interfaces. They are named as follows:

Service type	File name / Example
Web service	InFormAdapter.<interfacename>.config Example: InFormAdapter.coding.config Location: <installation_directory>\coding\bin\config
Windows service	<servicename>Service.config InFormServerAdapterService.config

In the application configuration files, you can configure any of the following settings:

Error logging settings

The Oracle InForm Adapter software uses the open source log4net component (http://logging.apache.org/log4net/) to perform error logging to a configurable location.

- By default, all Oracle InForm Adapter web services and Windows services are configured to log all errors that occur to the event viewer.
  However, they can be configured to log additional information to a log file or some other location.
- Some requests that return errors deliver the errors to the calling application or client process.
  In some situations (for example, when the debugging level of error logging is enabled), only the errors related to the request are relayed to the calling application. Debugging errors can be routed to another location.

For more information, see http://logging.apache.org/log4net/release/config-examples.html.

Setting the ChunkSize parameter in the InFormAdapter.Coding.config file

The ChunkSize parameter is the number of transactions that the Oracle InForm Adapter software looks at in a single coding get request call, and determines whether the PFEX_VERBATIMCACHE table needs to be updated based on new data, deleted data, or changed data in the Oracle InForm software. The ChunkSize parameter is set to 2000 by default.

In very large studies in which the PFEX_VERBATIMCACHE table is rebuilt (for example, when a new mapping is implemented) you might need to increase the value of the ChunkSize parameter. Increasing the value can improve performance of the PFEX_VERBATIMCACHE table rebuild if the verbatim density across the transactions in the study is not too high.

For example, in a very large study, transactions that contain verbatim information could be spread out over several thousand transactions. If the ChunkSize is set to 2000, each call made to the Adapter might update/insert only a few records. If the ChunkSize is set to 20000, each call will bring back many more verbatims. The disadvantage to this higher setting would occur in studies that have a high density of verbatims (such as if all 20000 transactions are from verbatim data). The call to the adapter could take a long time and potentially time out.

The value of the ChunkSize parameter is global to the Oracle InForm Adapter server and will affect all studies registered on that server.

To set the ChunkSize parameter edit the InFormAdapter.Coding.config file entry (this shows the default):

```
<ChunkSize size="2000" />
```

For example, in a very large study (greater than one million transactions) change the size to 20000:

```
<ChunkSize size="20000" />
```

Enabling or disabling ODM data reduction

ODM data reduction reduces redundancies in ODM output. Items are identified as unique based on their identifying key (OID, repeat key, etc). Contents of items that have the same key are reduced to a single item, in chronological order. The output remains ODM compliant, but is more compact.

ODM data reduction is enabled by default.

You can disable ODM data reduction for the output of the GetTransactions method by including the parameter skipODMReduction=TRUE in input request to the method.

You can disable reduction for all studies on the server by uncommenting the element **<SkipODMReduction />** in the InFormAdapter.ODM.config file. The request parameter value, if specified in the method call, takes precedence over the server-wide element value in the configuration file.

For example, if you uncomment **<SkipODMReduction />** in the configuration file, and include **skipODMReduction=False** in the call to the GetTransactions method for study pfst45odm, only the GetTransactions response for that particular request to trial pfst45odm will apply ODM data reduction to the response.

For more information, see the *Interfaces Guide*.

The web.config file

The Oracle InForm Adapter software uses web.config files for configuring the web services for each interface, including the Oracle InForm Server Adapter (ISA) interface on the InForm application server.

The web.config file is part of the Microsoft configuration architecture. For more information, see the MSDN documentation.

The web.config file should be used to configure security for each Oracle InForm Adapter interface.

Increasing the timeout period for ASP.NET

If a web service request runs longer than the default timeout period for ASP.NET, the following message might appear:

```
Attempted to access an unloaded AppDomain
```

Such a timeout could occur during synchronization.

To resolve this issue, increase the value for **responseDeadlockInterval** in the **machine.config** file on the servers. The default value is three minutes. This is a global value that applies to all ASP.NET applications. For more information about setting the value, see the Microsoft documentation (http://www.asp.net/).

> **Note:**
>
> Oracle recommends that you do **not** change the **responseDeadlockInterval** value unless you receive the error as described.

Enabling XA transactions

To use Oracle InForm Adapter, XA transactions must be enabled.

1. Select **Start** > **Apps** > **Component Services**.

2. In the console tree, expand **Component Services** > **Computers** > **My Computer** > **Distributed Transaction Coordinator**.
3. Right-click **Local DTC**, and select **Properties**.

   The Local DTC Properties dialog box appears.
4. Click the **Security** tab.
5. In the **Security Settings** section, select **Enable XA Transactions**.
6. Click **OK**.

Enabling TLS

If you use certificate authentication, Oracle recommends that you enable TLS 1.2 and disable TLS 1.1 and older on the Oracle InForm Adapter computer.

Make sure the following registry keys and subkeys exist in HKLM\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols:

Key	Subkeys and entries
SSL 2.0	Client: • DisabledByDefault=1 • Enabled=0 Server: • DisabledByDefault=1 • Enabled=0
SSL 3.0	Client: • DisabledByDefault=1 • Enabled=0 Server: • DisabledByDefault=1 • Enabled=0
TLS 1.0	Client: • DisabledByDefault=1 • Enabled=0 Server: • DisabledByDefault=1 • Enabled=0
TLS 1.1	Client: • DisabledByDefault=1 • Enabled=0 Server: • DisabledByDefault=1 • Enabled=0
TLS 1.2	Client: • DisabledByDefault=0 • Enabled=1 Server: • DisabledByDefault=0 • Enabled=1

Register Trial Tool

The Register Trial Tool is a command line tool that you use to register a study, decommission a study in Oracle InForm Adapter, and view lists of existing studies and decommissioned studies.

- Decommissioned studies in the InForm software and Oracle InForm Adapter
- Using the Register Trial Tool
- Register a study
- Decommission a study
- View a list of studies

Decommissioned studies in the InForm software and Oracle InForm Adapter

A study that has been decommissioned in the Oracle InForm software is removed from the Oracle InForm database, but connection information remains in the Oracle InForm Adapter database. If you install or upgrade the Oracle InForm software, the Oracle InForm Adapter installation program attempts to upgrade the study database, but fails because it cannot locate information about the decommissioned study in the Oracle InForm database.

To prevent this situation, use the Register Trial Tool to decommission the study in the Oracle InForm Adapter database.

Using the Register Trial Tool

The Register Trial Tool is always installed with Oracle InForm. When installation is complete, the tool can be found in:

<*installation_directory*>\RegisterTrialTool\bin

> **Note:**
>
> You must be an administrator (part of the administrator group for Oracle InForm Adapter) to run the Register Trial Tool. You cannot run the Register Trial Tool with User Access Control turned on. You must either log in as an administrator or open a command window as an administrator.

To use the Register Trial Tool:

1. Open a Command Prompt window and change to the **RegisterTrialTool\bin** directory.
2. Issue the command **RegisterTrialTool**.

The command displays the usage of each option. With the Register Trial Tool you can do the following tasks:

- Register a study.
- Decommission a study.
- View a list of studies.

For each task, you are prompted to enter the password for the Oracle InForm Adapter database and, if required, the study database.

Register a study

SetTrial

Registers a study in the Oracle InForm Adapter database.

> **Note:**
>
> SetTrial also registers InForm Adapter in the Integration Manager.

If the study name and study alias exist, SetTrial updates the other information you specify.

Syntax

```
RegisterTrialTool SetTrial <informadapter-user> <adapterDBConnectionStr>
<trial-alias> <trial-name> </virtualdirectory:virtual-directory-name>
```

Considerations

<trial-name>

If you are using Oracle Data Management Workbench (Oracle DMW) for the study, take note of the study name you enter here. You must enter the exact same study name when you set up the study in Oracle DMW.

Example

```
RegisterTrialTool.exe SetTrial informadapteruser dev1 testtrial testtrial /
virtualdirectory:http://<hostname>:<port>/InFormAdapter
```

Decommission a study

decommission

Removes the study from the Oracle InForm Adapter database. The command also marks the study as decommissioned in the PFIA_TRIALINFORMATION table in the InForm Adapter database.

Syntax

```
RegisterTrialTool decommission <informadapter-user> <adapterDBConnectionStr>
<trial-alias> <trial-name>
```

Example

```
RegisterTrialTool.exe Decommission informadapteruser dev1 testtrial testtrial
```

View a list of studies

list

Generates the following lists:

- Studies that are currently registered in the Oracle InForm Adapter database.
- Oracle InForm Server Adapters that are registered in the Oracle InForm Adapter database.
- Studies that have been decommissioned in the Oracle InForm Adapter database.

Syntax

```
RegisterTrialTool list <informadapter-user> <adapterDBConnectionStr>
```

Example

```
RegisterTrialTool.exe List informadapteruser dev1
```

Set up Oracle InForm Publisher

The Oracle InForm Publisher feature publishes data from Oracle InForm studies that can be imported to a target application. To use the Oracle InForm Publisher feature with an Oracle InForm study, you must configure the feature to work with the study and the target application.

For more information, see the *Configuration Guide for InForm Publisher*.

- Installing a certificate for the Oracle InForm Publisher software
- Installing the Oracle InForm Publisher software with the installer wizard

Installing a certificate for the Oracle InForm Publisher software

If the endpoint that the Oracle InForm Publisher application calls to update data to the subscriber destination requires a client certificate, you must set up a client certificate for the Oracle InForm Publisher Service to call the endpoint.

This is performed through the Certificates MMC snap-in in Microsoft Windows. Because the Oracle InForm Publisher Service runs as the local service user, you must add the certificate to the certificate store for the local computer for the Oracle InForm Publisher Service.

Installing the Oracle InForm Publisher software with the installer wizard

To finialize the set up of Oracle InForm Publisher, run the following commands:

1. Using the admin command prompt, create publisher service: **InstallConfiguration.exe/ install**
2. Create the Queue Grantor User in the DB: **PublisherAdmin.exe grantor set** and follow the instructions on screen.

> **Note:**
>
> This step is only necessary if you intend to use the Safety Subscriber for the Oracle InForm-to-Oracle Argus Safety Integration.

Install the sample study

The sample study is created in the Oracle Central Designer application and made available to the Oracle InForm server, along with a public key certificate that you must install on your Oracle InForm application server.

Before you can install the sample study, you must:

- Create a skeletal study to deploy the samples study.
  For more information, see Step 4: Set up a skeletal study.
- Install the Oracle Central Designer certificate.
  For more information, see Step 5: Install the Oracle Central Designer certificate
- About the sample study
- Deploying the sample study

About the sample study

The sample study contains examples of the types of components you can use when you design your own study. Before deploying your own study, you might want to run the sample study to familiarize yourself with the Oracle InForm application.

Deploying the sample study

> **Note:**
>
> Oracle recommends running the sample study only on a development server. Do not run a sample study on a production server.

To deploy the sample study:

1. Copy the deployment package created on this release of Oracle Central Designer server to the Oracle InForm application server. For more information see the *Oracle Central Designer Installation Guide*.
2. Log in to the Oracle InForm study as a sponsor user with the Study Deployment right.

   > **Note:**
   >
   > For more information about creating a sponsor user, see *User Guide for Administrators*

3. In the navigation toolbar, click **Deployment**.

   The Deployment page appears.

4. Select a deployment package.
   a. Click **Browse / Choose File**.

      The **Choose File to Upload / Open** dialog box appears.

   b. Select the deployment package and click **Open**.

      The name of the deployment package you selected appears in the Deployment Package field.
5. Click in the **Scheduled Time** field to schedule a time and date to deploy the study package.

   A calendar control appears.
6. Do one of the following:
   - To run the deployment package immediately, click **Immediate**, and then click **Done**.
   - To run the deployment package at a later date and time, select the appropriate date and time options, and then click **Done**.

   The **Upload** button becomes active.
7. Click **Upload**.

   The deployment package file name appears on the Deployment page with a status of Scheduled.
8. Once the study has been deployed successfully, please refer to the steps to create users and sites for the study. For more information see the *User Guide for Administrators*.

Qualify the installation

Qualifying the installation verifies that the study was installed successfully. The qualification process consists of a set of administrative and clinical activities that perform the basic functionality of the Oracle InForm application. The tests are divided into Admin and CRC/CRA tests.

- Qualification prerequisites
- Admin—Users test
- Admin—Rights test
- Admin—Sites test
- Admin—Groups test
- Admin—Users and Groups test
- CRC / CRA tests

Qualification prerequisites

- Oracle InForm software is installed. For more information, see Step 2: Install the Oracle InForm core software on the InForm Application Server.
- Sample study is installed, and the server and study are running. For more information, see Install the sample study.
- The **pfadmin setserver** command has activated and assigned a password to the **system** user. For more information, see pfadmin and look for the **systempw** option for the **setserver** command.

Admin—Users test

1. Log in as the **system** user.
2. Click **Admin**.
3. Select each of the following: **Users**, **Rights**, **Groups**, **Sites**, **Configuration**, **Events**, **Rules**, and **System**.
4. On the **Users** page, click **Add User**.
5. Enter a user name in the **User Name** field.
    a. In the **User must change password at next login** field, select **No**.
    b. Select values in the **Product Locale** and **Preferred Study Locale** fields.
    c. Click **Submit**, and click **OK** in the message box.
6. Click **Return** and verify that the added user is shown in the list.
7. Click the **Account Name** and the **Group** tab for the added user.
    a. Assign a rights group and two user site associations.
    b. Click **Submit**, and click **OK** in the message box.
8. Click **Return** and click any link for the new user.
9. Click **Change Password**.
    a. Give user X a password with eight characters or more.
    b. Click **Submit**, and click **OK** in the message box.
10. Click **Return** and select **User Active**.
    a. Click **Submit**, and click **OK** in the message box.
    b. Log out.
11. Log in as the new user, using the password assigned in Step 9.
12. Click **Subjects** verify that the **Site** drop-down list contains only the sites selected in Step 7.
13. Log out.

Admin—Rights test

1. Log in as the **system** user.
2. Select **Rights**. Click **Add Rights** Group.
3. Enter new rights group information. Click **Submit**, and click **OK** in the message box.
4. Click **Return**. Verify that the rights group that you just created is in the list.

Admin—Sites test

1. Select **Sites**
2. Click **Add Site**.
3. Enter the new site information. **Site Name**, **Site Mnemonic**, and **Study Locale** are required.
4. Click **Submit**, and click **OK** in the message box.

5. Click **Return** and verify that the site that you just created is in the list.

Admin—Groups test

1. Select **Groups**.
2. Click **Add Group**.
3. Select **Signature** from the **Group Type** drop-down list, and type the group information.
4. Click **Submit**, and click **OK** in the message box.
5. Click **Return** and verify that the signature group you just created is in the list.
6. Click **Add Group**.
7. Select **Query** from the **Group Type** drop-down list, and enter group information.
8. Click **Submit**, and click **OK** in the message box.
9. Click **Return** and verify that the query group you just created is in the list.

Admin—Users and Groups test

1. Select **Groups**. In the **Members** column for the signature group that was created in the Admin—Groups test section, click **Change**.

   For more information, see Admin—Groups test.
2. Select the user in the **Available users** list and click **Add**.
3. Verify that the user is in the **Users in** (signature group) list and click **Submit**, and then click **OK** in the message box.
4. Click **Return** and verify that the **Member Count** column shows 1 (and not 0) for the signature group.
5. In the **Members** column for the query group that was created in the Admin—Groups test section, click **Change**.

   For more information, see Admin—Groups test.
6. Select the user in the **Available users** list and click .
7. Verify that user X is in the **Users in** (query group) list and click **Submit**, and click **OK** in the message box.
8. Click **Return** and verify that the **Member Count** column shows 1 (not 0) for the query group.
9. Log out.

CRC / CRA tests

1. Open two browser windows, log into the study that was deployed.
2. Create CRC and CRA rights groups with rights applicable to those roles.

   For more information, see Typical rights for CRA and CRC rights groups.
3. Assign users to these rights groups.
4. Log in to one session as a CRC user and the other as a CRA user.
5. Perform the CRC/CRA tests.

- As a CRC user

- As a CRC user and a CRA user

As a CRC user

1. Click **Enroll** and click **Add Candidate**.

   A question window appears.
2. Enter subject information and click **Submit**.
3. **Click** the Screening Number for the subject who was just entered.
4. Edit one of the fields, provide a reason for change, and click **Submit**. Verify that the field you edited is changed.
5. Click **Return**.
6. In the **Enrolled** column, and click the **Enroll** link.
7. Enter the subject number (site ID followed by a hyphen and a 3-digit number) and click **Submit**.

   The System Enrollment page displays the heading Candidate Meets All Criteria for Enrollment in Study.
8. At the bottom of the page, click **Enroll**.

   If your study is configured to display the visit calculator, verify that a Visit Calculator (subject schedule) page appears for the subject with a default baseline date of the current date.
9. Change the **Start Date** and verify that the associated dates are updated correctly.
10. Click **Go To First Visit**.
11. Complete the DOV form and click **OK**.

    The list of forms for the first visit appears. Navigate to each form in the first visit.
12. Click the **Time and Events** arrow at the left end of the visit ruler and view the **Time and Events Schedule** to check all visits for the new subject.
13. Click the status icon for the Base visit and click the status icon for the Demographics form. Enter data in the form, and click **Submit**.
14. Click **Return**.
15. Click the status icon for the Vital Signs form and enter a value of 94.50 degrees Fahrenheit in the Temperature item.
16. Click **Submit**, and verify that an autoquery is generated.

    The background for the question becomes pink and an error message is shown in red.
17. Click the comment icon in the right column for an item, and add a comment in the **Comment** field.
18. Click **Submit**, and click **OK** in the message box.
19. Click **Return** and click the query text.
20. On the Queries detail page, click **Update Data and Answer** and change the Temperature value to 98.60 and add a reason for change.
21. Click **Submit**, and click **OK** in the message box. Verify that the auto-query is answered. The background for the question changes from pink to gray.
22. Click the status icon for any form that has data.

23. Select **Mark SV Ready** from the **Select Action** list, and click **Apply**.
24. Click the status icon for the Demographics form.
25. Select **Print Preview** from the **Select Action** list, and click **Apply**. Verify that the preview of the form appears.
26. Click **Print**.
27. Verify that the report prints with the correct information.
28. Click the **Help** icon, and select **InForm Help** and verify that the Get Started page of the Oracle InForm documentation library opens.

As a CRC user and a CRA user

> **Note:**
>
> Keep both browsers open to make the following steps easier to perform.

1. As a CRA user:
   a. Click **Subjects**.
   b. In the **Subject** column, click the link for the subject that was created by the CRC user in the CRC test.
   c. Click the status icon for the Base visit. The list of forms appears.
   d. Click the status icon for the Demographics form.
   e. Create an open query on an item entered by the CRC user:
   f. Click the query icon () for the item, click **Create Query**, select **Create Query in Opened State** in the **Action** list, and select a reason.
   g. Click **Submit**, and verify that the query appears with red text in a pink box under the item.
2. As a CRC user:
   a. Click **Subjects**.
   b. In the **Subject** column, click the link for the subject who was created by the CRC user in the CRC test.
   c. Click the status icon for the Demographics form.
   d. To answer the query, click the query icon or the red query text.
   e. In the Current Value section, click **Answer**. In the Query section, enter a response to the query.
   f. Click **Submit**, and verify that the query disappears from the form.
3. As a CRA user:
   a. Refresh the Demographics form: click the CRF history icon (), and select the Demographics form.
   b. To re-issue the answered query click the query icon, and in the Current Value section, click **Reissue as Open**.
   c. In the Query section, select a reason.

d. Click **Submit**, and verify that the query reappears.

4. As a CRC user:

   a. Refresh the Demographics form: click the **CRF history** icon (), and select the Demographics form.

   b. To re-answer the query, click **Submit**, and verify that the query disappears from the form.

5. As CRA user:

   a. Refresh the Demographics form: click the **CRF history** icon (), and select the Demographics form.

   b. To close the query, click the query icon, and in the Current Value section, click **Close Query**.

   c. In the Query section, select a reason.

   d. Click **Submit**, and verify that the query disappears from the form.

6. Log out of both browser sessions.

6

Preparing the Reporting application servers

In this section:

- About preparing the Reporting application servers
- Prepare the Oracle Directory Server
- Prepare the Cognos Content Manager Server
- Prepare the Cognos Report Server
- Prepare the Cognos Gateway Server
- Common steps for Reporting application servers

About preparing the Reporting application servers

You must perform a specific series of steps on the reporting servers to prepare them for use with the Oracle InForm application. Some of the same steps are required on each server, and some steps are unique to the server type.

- Oracle Directory Server
  For more information, see Steps to prepare the Oracle Directory Server.
- Cognos Content Manager Server
  For more information, see #unique_156.
- Cognos Report Server
  For more information, see #unique_157.
- Cognos Gateway Server
  For more information, see #unique_158.

For information on how to configure load balancing for the reporting servers in a distributed environment, see the Cognos Analytics *Administration and Security Guide*.

Prepare the Oracle Directory Server

In this section:

- Steps to prepare the Oracle Directory Server
- Step 1: Install the Oracle Directory Server
- Step 2: Create the ORACLEHS organizational unit (OU) and crnsysadmin user on the Oracle Directory Server

Steps to prepare the Oracle Directory Server

The Oracle Directory Server is required only if you are using Reporting.

To prepare the Oracle Directory Server:

1. Install the Oracle Directory Server.

For more information, see Step 1: Install the Oracle Directory Server.

2. Create the ORACLEHS namespace and crnsysadmin user on the Oracle Directory Server.

   For more information, see Step 2: Create the ORACLEHS organizational unit (OU) and crnsysadmin user on the Oracle Directory Server.

> **Note:**
>
> You also create an ORACLEHS namespace and a crnsysadmin user on the Cognos Content Manager Server when you run the Cognos Analytics Customization for InForm wizard. For more information, see Run the Cognos Analytics Customization for InForm wizard—Cognos Content Manager / Cognos Report Server.

Step 1: Install the Oracle Directory Server

1. Download and install the Oracle Directory Server.
2. Configure and deploy the Oracle Directory Server to a supported web server.

   For more information, see the Oracle website, the Oracle Directory Server Enterprise Edition documentation, or your Oracle database documentation.

Step 2: Create the ORACLEHS organizational unit (OU) and crnsysadmin user on the Oracle Directory Server

If you are using Reporting, you create an ORACLEHS namespace and crnsysadmin user on the Cognos Content Manager Server and the Cognos Report Server when you run the Cognos Analytics Customization for InForm wizard. For more information, see Run the Cognos Analytics Customization for InForm wizard—Cognos Content Manager / Cognos Report Server.

1. On the server where the Oracle Directory Server is installed, use the Cognos Configuration utility to ensure that the Cognos Analytics Service is stopped.
2. Launch the URL for the Oracle Directory Server and log in to the Oracle Directory Service Control Center.
3. Select the Directory Server tab.
4. In the **Directory Servers** list, click the server name.

   The Server Operations tab opens.
5. Select the **Entry Management** tab.
6. From the **Browse Data** list, select the **DN** , and click **New Entry**.

   The New Entry wizard page displays the Specify Entry Location page.
7. Make sure that the Entry Parent DN is correct, and click **wizard button next**.

   The Choose Object Class page appears.
8. From the **Entry Type** drop-down list, select **Organizational Unit - (organizationalUnit)**, and click **wizard button next**.

   The Configure Attributes page appears.

9. In the **Organizational Unit (ou)** field, type **ORACLEHS** (all uppercase), and click **wizard button next**.

   The Summary page appears.

10. Review the information, and if it is correct, click **wizard button finish**.

    The ORACLEHS node is added to the Browse Data list.

11. On the **Entry Management tab**, in the **Browse Data** list, right-click **ou=ORACLEHS** ,and click **New Entry**.

    The New Entry wizard displays the Specify Entry Location page.

12. Make sure that the **Entry Parent DN** is correct, and click **wizard button next**.

    The Choose Object Class page appears.

13. From the **Entry Type** drop-down list, select **User - (inetOrgPerson)**, and click **wizard button next**.

    The Configure Attributes page appears.

14. Create a new user for the ORACLEHS namespace as follows:

    - **Full Name (cn)**—crnsysadmin
    - **Last Name (sn)**—crnsysadmin
    - **User ID (uid)**—crnsysadmin
    - **Password (userPassword)**—<*crnsysadmin password*>
    - **Confirm Password**—<*crnsysadmin password*>

15. Click **wizard button next**.

    The Summary page appears.

16. Review the information, and if it is correct, click **wizard button finish**.

    The uid=crnsysadmin node appears in the Browse Data list on the Entry Management tab.

Prepare the Cognos Content Manager Server

All Oracle InForm installations with Reporting use a Cognos Content Manager Server.

To prepare the Cognos Content Manager Server:

- Step 1: Verify the Oracle database client on the Cognos Content Manager Server
- Step 2: Install the Cognos software on the Cognos Content Manager Server
- Step 3: Set up JRE on the Cognos Content Manager Server
- Step 4: Set up the Oracle JDBC driver
- Step 5: Run the Cognos Analytics Customization for Oracle InForm wizard on the Cognos Content Manager Server
- Step 6: Start the Cognos service on the first Content Manager Server—For distributed Cognos installations only
- Step 7: Customize the Cognos Analytics email settings on the Cognos Content Manager Server—For self-hosted studies only
- Step 8: Enable SSL on the Cognos Content Manager Server—Optional

Step 1: Verify the Oracle database client on the Cognos Content Manager Server

Before you begin, ensure that you have followed the instructions in Steps to install and configure the Oracle database client so that the following requirements are met on the Cognos Content Manager Server:

- The Oracle database client is installed.
- The language registry settings are updated.
- The database connection is configured and verified.

This step is also performed on the Cognos Report Server.

Step 2: Install the Cognos software on the Cognos Content Manager Server

- The Oracle database client is installed.
- The language registry settings are updated.
- The database connection is configured and verified.

This step is performed on the Cognos Report Server.

For more information, see Install the Cognos software—Cognos Content Manager / Cognos Report Server.

Step 3: Set up JRE on the Cognos Content Manager Server

To enable the Cognos software to find the necessary Java components when it runs, you must set the JAVA_HOME environment variable on the Cognos Content Manager Server.

This step is also performed on the Cognos Report Server.

For more information, see Add JRE to the JAVA_HOME environment variable.

Step 4: Set up the Oracle JDBC driver

Before running the Cognos Customization for Oracle InForm wizard, you must set up the Oracle JDBC driver on the Content Manager Server.

1. Download the ojdbc7.jar file from the Oracle support website.
2. Copy the ojdbc7.jar file to the <*Cognos_Installation_Directory*>\drivers folder.

Step 5: Run the Cognos Analytics Customization for Oracle InForm wizard on the Cognos Content Manager Server

The Cognos Analytics customization wizard copies customization files and modifies files needed to customize the Cognos Analytics software for the Oracle InForm application.

This step is performed on the Cognos Report Server.

For more information, see Run the Cognos Analytics Customization for InForm wizard—Cognos Content Manager / Cognos Report Server.

Step 6: Start the Cognos service on the first Content Manager Server—For distributed Cognos installations only

If your deployment includes a distributed Cognos Analytics installation, after you install the Cognos software on the first server, start the Cognos service on this server to designate it the active Content Manager.

Start the Cognos service on the rest of the Content Manager Servers only after you perform steps 1-5 on all the standby Content Manager Servers.

Step 7: Customize the Cognos Analytics email settings on the Cognos Content Manager Server—For self-hosted studies only

Cognos Analytics includes a feature that allows you to send notifications by email with links to reports and attach report output to the emails.

> **Note:**
>
> This feature is not available for Oracle-hosted studies.

Normally, you configure email to point to the Cognos Gateway server. However, if your environment uses an F5 switch that requires a generic URL to access the switch, you must configure the SMTP server to use the correct address.

1. Using the Cognos Configuration utility, configure the SMTP mail server.

   For more information, see the Cognos Analytics *Installation and Configuration Guide*.
2. Select **File** > **Save**.

   The Cognos Configuration utility validates the settings and saves the configuration.
3. When the validation checks are complete (all items are marked with a green check mark), click **Close**.
4. Click **Close**, and close the Cognos Configuration utility window.

Step 8: Enable SSL on the Cognos Content Manager Server—Optional

Enabling SSL is optional. For more information, see About enabling Secure Sockets Layer (SSL).

Prepare the Cognos Report Server

All Oracle InForm installations with Reporting use a Cognos Report Server.

To prepare the Cognos Report Server:

- Step 1: Verify the Oracle database client on the Cognos Report Server
- Step 2: Install the Cognos software on the Cognos Report Server
- Step 3: Set up JRE on the Cognos Report Server
- Step 4: Set up the Oracle JDBC driver

- Step 5: Run the Cognos Analytics Customization for InForm wizard on the Cognos Report Server
- Step 6: Enable SSL on the Cognos Report Server—Optional

Step 1: Verify the Oracle database client on the Cognos Report Server

Before you begin, ensure that you have followed the instructions in Steps to install and configure the Oracle database client so that the following requirements are met on the Cognos Report Server:

- The Oracle database client is installed.
- The language registry settings are updated.
- The database connection is configured and verified.

This step is also performed on the Cognos Content Manager Server.

Step 2: Install the Cognos software on the Cognos Report Server

You must install the Cognos core software on the Cognos Report Server.

This step is also performed on the Cognos Content Manager Server.

For more information, see Install the Cognos software—Cognos Content Manager / Cognos Report Server.

Step 3: Set up JRE on the Cognos Report Server

To enable the Cognos software to find the necessary Java components when it runs, you must set the JAVA_HOME environment variable on the Cognos Report Server.

This step is also performed on the Cognos Content Manager Server.

For more information, see Add JRE to the JAVA_HOME environment variable.

Step 4: Set up the Oracle JDBC driver

Before running the Cognos Customization for Oracle InForm wizard, you must set up the Oracle JDBC driver on the Report Content Server.

1. Download the ojdbc7.jar file from the Oracle support website.
2. Copy the ojdbc7.jar file to the <*Cognos_Installation_Directory*>\drivers folder.

Step 5: Run the Cognos Analytics Customization for InForm wizard on the Cognos Report Server

The Cognos Analytics Customization for Oracle InForm wizard copies customization files and modifies files needed to customize the Cognos Analytics software for the Oracle InForm application.

This step is also performed on the Cognos Content Manager Server.

For more information, see Run the Cognos Analytics Customization for InForm wizard—Cognos Content Manager / Cognos Report Server.

Step 6: Enable SSL on the Cognos Report Server—Optional

Enabling SSL is optional. For more information, see About enabling Secure Sockets Layer (SSL).

Prepare the Cognos Gateway Server

All Oracle InForm installations with Reporting use a Cognos Gateway Server.

To prepare the Cognos Gateway Server:

- Step 1: Run the Cognos Analytics Gateway Customization for Oracle InForm wizard on the Cognos Gateway Server
- Step 2: Enable SSL on the Cognos Gateway Server—Optional

Step 1: Run the Cognos Analytics Gateway Customization for Oracle InForm wizard on the Cognos Gateway Server

The Cognos Analytics Gateway Customization for Oracle InForm wizard creates the Cognos virtual directory and sets up a reverse proxy rule to forward all Cognos requests from IIS to the Cognos dispatchers.

1. Extract the Cognos Analytics Gateway Customization for Oracle InForm archive from the Oracle InForm installation archive to a location that you can access from the Cognos Gateway Server.
2. On the Cognos Gateway Server, run the setup.exe program file from the extracted archive.

   The Choose Setup Language page appears.
3. Select the language you want the wizard to use during setup. Select either English or Japanese. English is the default. Click **Next**.

   The Cognos Analytics Welcome Screen appears.
4. Click **Next**.

   The Provide IIS Parameters for configuring Cognos Gateway Server screen appears.
5. Under Cognos Virtual Directory, enter a location on the gateway server where the Cognos Analytics virtual directory in IIS > Default Web Site will point to. A folder named Cognos [version] is created in this location.
6. Under Reverse Proxy Rule Parameters, enter the following:
   - Cognos Application Server FQDN—Fully qualified domain name of the Cognos application server or dispatcher.
   - Cognos Application Server Port—Port number used to communicate with the Cognos application server or dispatcher. Enter 9300, unless a different port was manually configured.
   - Cognos Application Server protocol—If SSL is enabled on the application server, select https. Otherwise, select http.
7. Click **Next**.

   The Ready to Install the Program page appears.
8. Click **Install**.

The Setup Status page appears.

The program installs, and the World Wide Web Publishing Service restarts.

The Wizard Complete page appears.

9. Click **Finish**.

Step 2: Enable SSL on the Cognos Gateway Server—Optional

Enabling SSL is optional. For more information, see About enabling Secure Sockets Layer (SSL).

Common steps for Reporting application servers

In this section:

- Install the Cognos software—Cognos Content Manager / Cognos Report Server
- Add JRE to the JAVA_HOME environment variable
- Run the Cognos Analytics Customization for InForm wizard—Cognos Content Manager / Cognos Report Server

Install the Cognos software—Cognos Content Manager / Cognos Report Server

Run the Cognos Analytics installation to install the following components:

- Cognos Analytics Content repository (Cognos Content Manager)
  For more information, see Step 2: Install the Cognos software on the Cognos Content Manager Server.
- Cognos Analytics Application services (Cognos Report Server)
  For more information, see Step 2: Install the Cognos software on the Cognos Report Server.

If you are installing the Cognos components in a distributed environment, before you install the standby Content Manager and Report Servers make sure that on the first Content Manager Server (the active Content Manager):

- The Cognos software is installed.
- The Cognos Analytics Customization for InForm is installed.
- The Cognos service is running.
- Run the Cognos Analytics installation

Run the Cognos Analytics installation

For information on how to run the Cognos installation, please refer to the latest applicable *Oracle InForm Reporting Cognos Installation Guide* listed under *Cognos documentation* on the Oracle Help Center.

Add JRE to the JAVA_HOME environment variable

Set the JAVA_HOME environment variable to the path for the Java Runtime Environment 1.8 (for example, C:\Program Files\Java\jre1.8.0_141) on the following reporting servers:

- Cognos Content Manager Server
  For more information, see Step 3: Set up JRE on the Cognos Content Manager Server.
- Cognos Report Server
  For more information, see Step 3: Set up JRE on the Cognos Report Server.

You must update the environment variable with the full path every time you install a JRE update.

Run the Cognos Analytics Customization for InForm wizard—Cognos Content Manager / Cognos Report Server

To customize the Cognos Analytics software for the Oracle InForm environment, you run installation and configuration wizards.

You run the Cognos Analytics Customization for Oracle InForm wizard on the following reporting servers:

- Cognos Content Manager Server
  For more information, see Step 5: Run the Cognos Analytics Customization for Oracle InForm wizard on the Cognos Content Manager Server.
- Cognos Report Server
  For more information, see Step 5: Run the Cognos Analytics Customization for InForm wizard on the Cognos Report Server.

1. Extract the Cognos Analytics Customization for InForm archive from the Oracle InForm installation archive to a location that you can access from the Cognos Content Manager Server and the Cognos Report Server.
2. On the Cognos Content Manager Server and the Cognos Report Server, run the setup.exe program file from the extracted archive.

   The Choose Setup Language window appears.
3. Select the language you want the wizard to use during setup. Select either English or Japanese. English is the default. Click **Next**.

   The Welcome page appears.
4. Click **Next**.

   The Cognos Analytics Installation Location page appears.
5. Specify the folder in which the Cognos Analytics Content Manager is installed, and click **Next**.

   The Java Runtime Environment (JRE) Version Information page appears.
6. Browse to the location where the JRE is installed, and click **Next**.

   The Cognos Content Store and Application Firewall page appears.
7. Enter the following values:

Field	Description
Database server	Fully qualified domain name of the database server where the Cognos Analytics Content Store schema is installed.
Port	Port number for communicating with the database server.
SID	SID for communicating with the database server.

Field	Description
User Name	User name of the Oracle user in the Cognos Analytics content store database. You created this user when you configured the Cognos Analytics content store database.
Password, Confirm Password	Cognos Analytics user in the Cognos content store database.
Valid Domain or Host	Comma-separated list of domain or host names, for example *.company.com,*.companycorp.com.

8. Click **Next**.

   The Custom Authentication Provider Configuration and Single Sign-On Information page appears.

9. Enter the following values:

Field	Description
Database server	Fully qualified domain name of the user that contains the TRIAL_URLS table.
Port	Port number for communicating with the database server.
SID	SID for communicating with the database server.
User Name	The name of the PFCapAdmin user.
Password, Confirm Password	Password of the PFCapAdmin user.
Integrated with Single Sign-on	Select to enable Single Sign-on. **Note:** This selection, and the following two options should be selected only if your application is running in an Oracle-hosted, single sign-on environment.
Cognos Content Manager Component is installed on the computer	Select if you are enabling SSO, and you are running the Cognos Analytics Customization for InForm wizard on the Content Manager Server.
OAM ASDK Install Location	If you are using SSO, enter the path to the Oracle Access Management Access SDK location.

10. Select **Trust the user for InForm Model Generation Service (No Authentication Required)**.
11. Click **Next**.

    The Cognos Analytics Server Information page appears.

12. Enter the following information:
    - IIS Server—Enter the fully qualified domain name of the Cognos Analytics web server, or browse to its location.
    - Active Content Server—If you are installing a single Content Manager Server, enter the fully qualified domain name of the server.

If you are installing multiple Content Manager Servers, enter the fully qualified domain name of the active Content Manager. By default, the first Content Manager computer where you start the Cognos service is the active Content Manager.

13. Click **Next**.

    The LDAP Configuration Information page appears.

14. Enter the following values:

Field	Description
LDAP Server	Fully qualified domain name of the server where the Oracle Directory Server is installed.
LDAP Port	Port number used to communicate with the LDAP server.
Administrator DN	Distinguished Name of the administrator of the server. Use the format and values shown beneath the field. **Note:** The Administrator DN value corresponds to an LDAP user who has READ and SEARCH access to the Base Distinguished Name (BDN). The BDN specifies the top level or root of the directory structure, which is the starting place for searches.
Password, Confirm Password	Password of the administrator.
Parent Node DN	Distinguished name of the Parent Node. Use the format shown beneath the field. (Do not enter spaces after the commas between the parts of the domain.) **Note:** The Parent Node DN is also known as the Base Distinguished Name (BDN). The BDN specifies the top level or root of the directory structure, which is the starting place for searches.
Cognos Admin OU	Cognos Admin organizational unit. The value you enter is added in Cognos as LDAP namespace name and ID (namespace type: LDAP – Default values for Oracle Directory Server).

15. Click **Next**.

    The Ready to Install the Program page appears.

16. Click **Install**.

    The Setup Status page appears and the program copies the necessary files.

17. When the Wizard Complete page appears, click **Finish**.

7

Enable Secure Sockets Layer (SSL)

In this section:

- About enabling Secure Sockets Layer (SSL)
- Set up your environment to support SSL
- Enable SSL for each study
- Set up your environment to use Transport Layer Security (TLS)

About enabling Secure Sockets Layer (SSL)

Secure Sockets Layer (SSL) enables secure communications between servers.

Enabling SSL is optional. However, Oracle recommends that you enable SSL for all Oracle InForm installations.

If you choose to use SSL, you must set up your environment to support SSL on all servers, and then you must enable SSL to be active in each study.

If you are using Cognos Reporting:

- You can enable SSL on the Oracle InForm servers when you install the Oracle InForm core software.
- You can enable SSL on the Reporting servers after you install them, or wait until after the Cognos installations are complete, and then enable SSL on all of the servers.

Set up your environment to support SSL

To enable your InForm installation to use SSL, perform the following steps on all servers.

1. Create and set up a key certificate.
2. Install key certificates.
3. Import key certificates.
4. Verify the key certificate installation.

If you are using Reporting, perform the following additional steps on the Oracle InForm Application Server and the Cognos Gateway Server:

1. Configure Cognos Report Server and Cognos Content Manager to use SSL.
2. Configure the Cognos Gateway Server to use SSL.

> **Note:**
>
> This step is required only if you are using Reporting.

If you choose to use SSL, you must set up key certificates on all servers, regardless of your configuration.

- Create and set up a key certificate for SSL in IIS
- Install a key certificate on the server machine in IIS
- Import the new key certificate to the local computer and the current user
- Verify the key certificate installation
- Additional steps to perform if you are using Reporting

Create and set up a key certificate for SSL in IIS

1. Open **Internet Information Services (IIS) Manager**.
2. Open the <*machine_name*> node.
3. In the **IIS Group**, select **Server Certificates**.
4. From the **Actions** view, click **Open Feature**.
5. From the resulting **Actions** view, select **Create Certificate Request.**

   The Request Certificate Wizard opens.
6. Complete the **Request Certificate** page. Specify the name of the study server in the **Common name** field, including the FQDN (for example: <*machine_name*>.example.com).
7. Click **Next**.
8. Leave all default values in **Cryptographic Service Provider Properties** and click **Next**.
9. Click **Browse**.
10. Specify the certificate request name and folder details.
11. Click **Open**.

    The file name appears in the text box.
12. Click **Finish**.

Install a key certificate on the server machine in IIS

1. Open your browser and go to the security certificate server URL: http://<*Windows_security_certificate_server*>/<*certificate _request_page*>.
2. Click **Request a certificate**.
3. Click **Advanced certificate request**.
4. Click **Submit a certificate request by using a base-64-encoded**.
5. Copy all the text in certreq.txt file in the first text field of the saved request.
6. Click **Submit**.
7. Select **Base 64 encoded**.
8. Click **Download certificate**.
9. Save to c:\certnew.cer.
10. Click **Download certificate chain**.
11. Save to c:\certnew.p7b.
12. Go to Internet Information Services Manager to complete the certificate request.

13. Select the <*machine_name*> node.
14. From the **Feature View**, select **Server Certificate** under IIS group.
15. From the **Actions** view, select **Open Feature**.
16. From the **Actions** view, select **Complete Certificate Request**.
17. Browse to c:\certnew.cer and give the **Friendly name** as machine name, and click **Next**.
18. Set the SSL port to the port number for the study server. The default is 443.
19. Click **OK**.
20. Go to C:\ directory. Right click on c:\certnew.p7b.
21. Select **Install Certificate**, and click **Next**.
22. Click **Next** again, and click **Finish**.
23. Click **Yes** in the **Security Warning** dialog box.
24. Click **OK** on the confirmation dialog box.
25. Set the **Binding for Default Websites**.
26. Go to IIS Manager.
27. Select the <machine_name> node.
28. Open the **Web Sites** node.
29. Click **Edit Site** > **Bindings**, and click **Add**.
30. Select the certificate type as **Https** and **SSL**.
31. Click **View**. Verify that there is no red exclamation mark for the Certificate.

Import the new key certificate to the local computer and the current user

1. Click **Start**, type **mmc**, and press **Enter**.
2. From the Console screen, go to **File** > **Add/Remove Snap-in**.
3. Click **Available snap-ins** > **Certificates** > **Add**.
4. Select **My user account**, and select **Finish**.
5. Click **Available snap-ins** > **Certificates** > **Add**.
6. Select **Computer account**, select **Next** > **Finish**, and click **OK**.
7. Go to **Certificates** > **Current User**.
8. Expand **Trusted Root Certification Authorities**.
9. Right-click **Certificates** and select **All Tasks** > **Import**.
10. Browse to the certificate you created, select it, and complete the wizard, using all defaults.
11. Repeat steps 8 through 10 for **Certificates** > **Local Computer**.

> **Note:**
>
> Make sure **<Windows_security_certificate_server>** is listed in the trusted roots of the certificate store for both the **current user** and the **local computer**. If it is not there, export it from the **current user**, save it to the disk, and import it to the **local computer**.

Verify the key certificate installation

1. Open a browser window.
2. Type:

   ```
   https://<machine_name>.<domain_name>.com
   ```

   The Security Alert window appears.
3. Verify that the date and name for the certificate are valid.

Additional steps to perform if you are using Reporting

If you are using Reporting, you must configure the Cognos software and reporting servers to use SSL.

- Configure Cognos Analytics to use SSL—Reporting only
- Configure the Cognos Gateway Server to use SSL—Reporting only

Configure Cognos Analytics to use SSL—Reporting only

> **Note:**
>
> This step is required only if you are using Reporting.

Use this procedure to update the Web Content URL and Gateway URI entries for SSL.

1. On the Cognos Report servers, select **Start** > **Apps** > **Cognos Configuration**.
2. After the Cognos Configuration utility is completely loaded, select **Portal Services** and update the **Web Content URI** entry:

   ```
   https://<servername>.<domainname>:<portnumber>/COGNOS11
   ```

   > **Note:**
   >
   > Be sure to change the port number to the port for HTTPS.

   For example:

   ```
   https://www.example.com:443/cognos11
   ```
3. Select **Environment** and update the **Gateway URI** entry:

   ```
   https://<servername>.<domainname>:<portnumber>/cognos11/cgi-bin/
   cognosisapi.dll
   ```

> **Note:**
>
> Be sure to change the port number to the port for HTTPS.

For example:

```
https://www.example.com:443/cognos11/cgi-bin/cognosisapi.dll
```

4. Select **File** > **Save**.

   The Cognos Configuration utility validates the settings and saves the configuration.
5. When the checks are complete (all items are marked with a green check mark), click **Close**.
6. Click **Close**, and close the Cognos Configuration utility window.

Configure the Cognos Gateway Server to use SSL—Reporting only

> **Note:**
>
> This step is required only if you are using Reporting.

If you install Cognos Analytics on its own dedicated server, you must configure IIS to work with Windows 2012 and 2019.

On the server where the Cognos Analytics Gateway services are installed:

1. Navigate to **Start** > **Administrative Tools** > **Internet Information Services (IIS) Manager**, and expand the node for the local computer.
2. Select **ISAPI and CGI Restrictions**.
3. Make sure that the following options are set to **Allowed**:
   - All unspecified CGI modules.
   - All unspecified ISAPI modules.
   - ASP.NET v2.0.50727.
   - ASP.NET v4.0.30319.
   - WebDAV.
   - Active Server Pages.

Enable SSL for each study

If you choose to use SLL, you must enable SSL to be active for each study.

After you complete the InForm installation and set up your environment to support SSL, you must

- Enable the SSL System Configuration option for each study.
  You can set this option in the Oracle InForm Admin user interface or with the MedML Installer utility.

- Configure Oracle InForm web services to enable SSL.
- Enable SSL through the Oracle InForm Admin user interface
- Enable SSL with the MedML Installer utility
- Configure the Oracle InForm study web services to use SSL

Enable SSL through the Oracle InForm Admin user interface

1. Log in to the Oracle InForm application as a user with system administration rights.
2. Click **Admin** > **Configuration**.
3. Set the **Enable SSL** option to **on**.
4. If you are setting up the Reporting and Analysis module, change the **Reporting service full url** option to start with https:// and to include a port number.
5. Click **Update**.
6. Stop and restart the study with the following commands.

```
pfadmin stop trial <studyname>
pfadmin start trial <studyname>
```

Enable SSL with the MedML Installer utility

1. Create an XML file with the following entry:

```
<MEDMLDATA>
<SYSCONFIG CONFIGNAME="SSLFLAG" TYPE="0" VALUE="1" />
<MEDMLDATA/>
```

2. If you are setting up the Reporting and Analysis module, include the following definition in the XML file, and change the value of the URL for the reporting server to start with https://.

```
<SYSCONFIG CONFIGNAME="REPORTINGSERVER" TYPE="0" VALUE="https://<url>" />
```

3. Stop the study with the following command:

```
pfadmin stop trial <studyname>
```

4. Install the configuration options with the MedML Installer utility.

   For more information, see the *Utilities Guide*.

5. Restart the study with the following command:

```
pfadmin start trial <studyname>
```

Configure the Oracle InForm study web services to use SSL

Use the pfadmin command to configure the active web services for each study:

```
pfadmin config webservice <studyname> <webservicename> ADD HTTPS:<port>
cert:<thumbprint>
```

For example to configure the DeploymentService, AuthService, and ODMSubmitService web services for pfst62:

```
pfadmin config webservice pfst62 DeploymentService ADD HTTPS:14040
cert:73616d706c657468756d627072696e74
pfadmin config webservice pfst62 AuthService ADD HTTPS:14041
cert:73616d706c657468756d627072696e74
pfadmin config webservice pfst62 ODMSubmitService ADD HTTPS:14042
cert:73616d706c657468756d627072696e74
```

For more information, see Step 4: Set up a skeletal study and pfadmin.

Set up your environment to use Transport Layer Security (TLS)

To enable Transport Layer Security (TLS):

1. Create the following Windows registry keys:
   - HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.2
   - HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.2\Client
   - HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\SecurityProviders\SCHANNEL\Protocols\TLS 1.2\Server
2. For the Client and Server entries, enter the following DWord and Value entries:
   - DisabledByDefault=00000000
   - Enabled=00000001

Part III
Post-installation tasks

In this chapter:

- Post-installation tasks
- Deploy your study
- Uninstalling software components
- Command and script reference
- Troubleshooting
- Running the Cognos Customization wizards in silent mode
- Typical rights for CRA and CRC rights groups

8
Post-installation tasks

In this section:

- Enable communication among distributed Cognos Analytics software components
- Enabling clinical model generation in a multi-server environment
- Start the Cognos Analytics servers
- Disable the indexed search option on the Reporting Server
- Enabling Authors group permissions
- Configure settings for Comma Separated Values (CSV) report output
- Deploying SQL profiles
- Additional Cognos information

Enable communication among distributed Cognos Analytics software components

If you install one or more Application Tier Components on a separate server, perform the these actions to ensure that they can communicate with other Cognos Analytics reporting components.

- Configure cryptographic properties.
- Specify all Content Manager URIs.
- Specify the Dispatcher URIs.
- Specify the Dispatcher URI for external applications.
- Configure the Cognos Report Server Notification Store property to point to the Content Store database. This is described in the online Help notes in the Cognos Configuration utility.

> **Note:**
>
> This is only necessary if you are using a multiple server environment where the Cognos Report Server and the Cognos Content Manager are on separate servers.

For more information, see the Cognos Analytics documentation.

Enabling clinical model generation in a multi-server environment

If your Cognos environment contains multiple Cognos servers, set the following on all the dispatchers:

1. Log in to Cognos with an administrator account.

2. Open IBM Cognos Administration.
3. On the **Configuration** tab, click **Dispatchers and Services**.

   A list of the dispatchers that are registered with the Content Manager appears.
4. For each dispatcher, perform these steps:

   a. Click the **Set Properties** button ( ) and then click **Settings**.

   b. In the **Category** drop-down list, select **Tuning**.

   c. Set the **Load balancing mode** property to **Cluster Compatible**.

   d. Click **OK**.

Start the Cognos Analytics servers

After completing the Cognos Analytics installation and configuration steps, you can start the Cognos Analytics servers. If you have distributed Cognos Analytics application tier components across multiple servers, see the *Cognos Installation & Configuration Guide* for the specific order for starting the servers.

1. On the server where the Cognos Analytics service is installed, select **Start** > **Apps** > **IBM Cognos Configuration**.

   The Cognos Configuration utility starts.
2. Select **Actions** > **Start**.
3. When the server is started, close the Cognos Configuration utility.

Disable the indexed search option on the Reporting Server

Because the indexed search functionality is not available in the Reporting and Analysis module, you should make the following adjustment to the user interface to hide the option:

> **Note:**
>
> If you have distributed Cognos Analytics application tier components across multiple servers, perform this procedure on each presentation server.

1. Log in to the Cognos server with an administrator account.
2. Open IBM Cognos Administration.
3. On the **Configuration** tab, click **Dispatchers and Services**.

   A list of the dispatchers that are registered with the Content Manager appears.
4. Select the **PresentationService** entry.
5. In the **Actions** column, click the **Set Properties** button ( ).
6. Click the **Settings** tab.
7. For **Environment**, **Advanced settings**, click **Edit**.
8. Select **Override the settings acquired from the parent entry**, and do the following:
   - In the Parameter column, enter **portal.disableindexsearch**.

- In the Value column, enter **true**.

9. Click **OK**.
10. Restart the Cognos service.

Enabling Authors group permissions

By default, the Authors Oracle InForm Reporting group restricts users from including HTML items and user-defined SQL when creating reports.
For on-premises customers in a self-hosted environment, these default permissions can be modified to remove these restrictions in the Cognos Administration module:

1. Login as a Cognos system administrator.
2. Go to **Manage** > **People** > **Capabilities**.

   A search box appears.
3. Search for and select *Edit User Defined SQL* permission.
4. Open the menu and click **Customize Access**.
5. Remove the *All Authenticated Users* group by clicking the minus (-) button. Confirm the deletion.
6. Add the Authors group to *Edit User Defined SQL* permission by clicking the plus (+) button.
   - Click Cognos.
   - Search for and select the *Authors* group.
   - Click the plus (+) button to assign the Access permission to the group.
7. Repeat steps 3 to 6 to add the *Authors* group to the *Edit HTML Items* permission.

All users belonging to the *Authors* group will now be able to make changes to user-defined SQL and HTML items.

> **Note:**
>
> If implemented, this customization should be re-assessed for potential impact following any version upgrade for IBM Cognos Analytics, and dependent on future changes in the Cognos security or permissions model, may require to be re-applied or revised. For more information,, please see the IBM Cognos Analytics documentation.

- Allowing support for restricted report elements

Allowing support for restricted report elements

You may need to give a support user the ability to troubleshoot Report Studio reports that contain either restricted element.

For a user to troubleshoot reports containing custom HTML or SQL, the user must:

- Be a Support user type.
- Be a member of the following Reporting Groups:
  - Directory Administrators

  - Ad Hoc Users
  - Sponsor Users
- Not be a member of the Authors Reporting group.

Configure settings for Comma Separated Values (CSV) report output

The Reporting and Analysis module provides settings that allow you to easily use CSV report output files with applications such as the Excel spreadsheet application. Oracle applies these settings for hosted environments, and recommends that you apply them to your environments as well.

> **Note:**
>
> You must have server administration rights to modify these settings.

- **Delimiter**—Comma-delimited files are widely accepted for use with several applications.
- **Encoding**—Using UTF-8 character encoding allows you to use your CSV output with a wide range of applications.
- **Terminator**—Using carriage return and line feed (CRLF) terminators ensures that the report output is properly organized into columns and rows.
- Configure the CSV settings for reports

Configure the CSV settings for reports

1. Log in to the Cognos server with an administrator account.
2. Open IBM Cognos Administration.
3. On the Status tab, in the pane on the left, click **System**.
4. In the **Scorecard** section, click the server name.

   The full URL for the server appears below the server name.
5. Click the full URL for the server.

   The available services for the server appear.
6. Select **Report Service** > **Set Properties**.

   The **Set properties - ReportService** dialog box appears.
7. Select the **Settings** tab.
8. In the **Category** drop-down list, select **Environment**.
9. In the **Environment** category, in the **Advanced settings** row, click **Edit**.

   The Set advanced settings dialog box appears.
10. Select **Override the settings acquired from the parent entry** checkbox.
11. Type the following parameters and values:

Parameter	Value	Description
RSVP.CSV.DELIMITER	N/A	Separates each data item in the report output with a comma.
RSVP.CSV.ENCODING	UTF-8	Specifies UTF-8 character encoding for report data.
RSVP.CSV.TERMINATOR	CRLF	Separates each row of data with a carriage return and line feed, so that the rows appear in ordered columns.

12. Select the checkbox next to each parameter.
13. Click **OK**.

    The Set properties - ReportService page appears.
14. Click **OK**.

Deploying SQL profiles

SQL profiles can be used to improve performance.
To deploy SQL profiles:

1. Unzip **InForm_SQLProfiles.zip** (located in the <Installation_Directory>\InForm\Bin\DBOra\ReviewSchema folder).
2. Connect to SQLPlus as a user with the proper privileges:
   - ADVISOR role
   - CREATE ANY SQL PROFILE PRIVILEGE
   - ALTER ANY SQL PROFILE PRIVILEGE
   - DROP ANY SQL PROFILE PRIVILEGE
   - EXECUTE PRIVILEGE ON DBMS_SQLTUNE

   > **Note:**
   >
   > The user can be of any type, such as system user or pfdbadmin user, as long as a sys user has granted them the proper privileges.
3. Create a staging table in the destination database.

   ```
   EXEC DBMS_SQLTUNE.CREATE_STGTAB_SQLPROF (table_name =>
   'STGTAB_SQLPROF_DB006');
   ```
4. Import the data to the destination database.

   ```
   imp <user>/<pwd>@<instance> tables=('STGTAB_SQLPROF_DB006') file=
   InForm_SQLProfiles.dmp log=imp.log ignore=y
   ```
5. Create SQL Profiles in the destination database using the data stored in the staging table.

   ```
   EXEC DBMS_SQLTUNE.UNPACK_STGTAB_SQLPROF(replace => TRUE,
   staging_table_name => 'STGTAB_SQLPROF_DB006');
   ```

6. Verify that the profiles imported correctly.

```
Select name, created from dba_sql_profiles;
```

Additional Cognos information

For information on any additional post-installation tasks related to the supported Cognos patches and versions, please refer to the latest applicable Oracle InForm Reporting Cognos Installation Guide listed under Cognos documentation on the Oracle Help Center.

9
Deploy your study

After you have installed and configured the Oracle InForm software and the Reporting and Analysis module, you can schedule an automated study deployment from the Oracle Central Designer application.

There are two ways to schedule an automated study deployment:

- In the Oracle Central Designer user interface, a Oracle Central Designer user can schedule and monitor the progress of a study deployment. This is the preferred deployment method.
  For more information, see the Oracle Central Designer *User Guide.*
- In the Oracle InForm user interface, a sponsor user with the Deployment right can log in to a study, select a deployment package, and schedule a time to run the deployment.
  For more information, see the *User Guide for Sponsor Users*.

To complete the configuration process, see the *Study and Reporting Setup Guide*. The *Study and Reporting Setup Guide* describes how to perform the tasks that are required to set up an Oracle InForm study and configure the Reporting and Analysis module for the study.

10

Uninstalling software components

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About uninstalling software components

This section describes how to uninstall the core Oracle InForm software, the Cognos Analytics software, and the customizations for Cognos Reporting. For information about removing the reporting elements and an Oracle InForm study, see the *Study and Reporting Setup Guide*.

Uninstall the Oracle InForm and Cognos Analytics software in the following order:

1. The Cognos Customization for Oracle InForm wizard, the Cognos Gateway Customization for Oracle InForm wizard, and the Oracle InForm Reporting Database scripts.
2. The Cognos software.
3. The Oracle Directory Server.
4. The Oracle InForm software.

If any errors occur during the Oracle InForm software uninstallation, the default location where error logs are saved is C:\Program Files (x86)\Oracle HS \InForm <*release version*>\InForm <*release version*><*build_number*>\InstallLogs. The file name for the error logs is Install_yyyy-mm-dd_hh-mm-ss.log.

Uninstalling the Cognos Customization for Oracle InForm and the Cognos Gateway Customization for Oracle InForm wizards

To uninstall the files loaded with the Cognos Customization for Oracle InForm wizard, you uninstall the Cognos Gateway Customization for InForm wizard.

1. On the server where the Cognos Gateway Customization software is installed, select **Start** > **Control Panel** > **Programs and Features**.
2. Select the **Cognos Gateway Customization for InForm** entry, and click **Uninstall**.

   The Cognos Gateway Customization for Oracle InForm installation wizard starts.
3. When the confirmation message appears, click **Yes**.
4. When the wizard is complete, click **Finish**.

Uninstalling the Cognos Analytics software

The Cognos Uninstall Wizard enables you to uninstall the Cognos Analytics core software and the Cognos Analytics SDK software. You can uninstall both components together if they are on the same server or uninstall each component separately.

1. On the server that hosts the Cognos Analytics software, select **Start** > **Apps** > **Uninstall IBM Cognos Analytics**.

   The Uninstall Wizard starts.
2. On the Uninstall Language Selection page, select the language you want to use to run the uninstall, and click **Next**.
3. On the next page, select the component packages to uninstall, and click **Next**.

   The uninstall process starts.
4. When the wizard is complete, click **Finish**.

> **Note:**
>
> The uninstall may leave some folders and files on the computer. You can delete these with the Windows Explorer application.

Uninstalling the Oracle Directory Server

See the Oracle Directory Server Enterprise Edition documentation, or your Oracle database documentation for instructions on uninstalling the Oracle Directory Server.

Uninstalling the Oracle InForm software

1. Stop all Oracle InForm servers and studies.
2. Stop the Oracle InForm Service.
3. From the Windows Control Panel, open **Programs and Features**.
4. Select **Oracle InForm <release version>** and click **Uninstall**.

   A confirmation dialog box appears.
5. Click **Yes**.
6. If a message appears and asks if you want to remove shared files, click **No to All**.

   A message reminds you to back up customized files before continuing.
7. To stop uninstalling the software so that you can back up the customized files, click **No**.

   or

   To continue, click **Yes**.

   When the uninstall is complete, the Reboot page appears.
8. Click **Finish**.

   The computer reboots.

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Command and script reference

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admindb

Purpose

Creates the Oracle InForm Admin database if you did not set it up during the Oracle InForm core software installation by selecting the Install Admin DB checkbox.

Location

<*Installation_Directory*>\InForm\bin\DBOra folder.

Usage

admindb *[connection string] [dbadmin-uid] [dbadmin-pass] [pfdbadmin-uid] [pfdbadmin-pass]*

admindb *[connection string]* /prompt

admindb *[connection string]* /accountparams:*[parameterfile]*

Where:

- **connection string**—Database TNS Instance name.
- **dbadmin-uid**—Oracle InForm Admin Database UID (User name).
- **dbadmin-pid**—Oracle InForm Admin Database PID (Password).
- **pfdbadmin-uid**—pfdbadmin Database UID.
- **pfdbadmin-pass**—pfdbadmin Database PID.
- **parameterfile**—Path to text file containing parameters.

Command line prompts

If using prompting, you are prompted for the following parameters:

- **admindbuid**—Oracle InForm Admin Database UID (User name).
- **admindbpid**—Oracle InForm Admin Database PID (Password).
- **pfdbauid**—pfdbadmin Database UID.
- **pfdbapid**—pfdbadmin Database PID.

Parameter file contents

When using a parameter file, the path to a text file is given. The format of the parameter file is parameter=value, with each value on a separate line, and no spaces between the parameter name, =, and value.

The parameter file must contain the following parameters:

- AdminDbUid=*[dbadmin-uid]*
- AdminDbPid=*[dbadmin-pid]*
- pfdbauid=*[pfdbadmin-uid]*
- pfdbapid=*[pfdbadmin-pid]*

Example

- admindb trial1 /prompt
- admindb trial1 /accountparams:myparams.txt
- admindb trial1 informadmin *myinformadminpassword pfdbadmin mypfdbadminpassword*

exportdb

Purpose

Exports the given database schema.

Location

<*Installation_Directory*>\InForm\bin\DBOra folder.

Usage

exportdb *[connection string] [dump-file-directory-path] [dump-file-name] /prompt [log options]*

exportdb *[connection string] [dump-file-directory-path] [dump-file-name] /accountparams: [paramfile] [log options]*

exportdb *[connection string] [dump-file-directory-path] [dump-file-name] [version] /prompt [log options]*

exportdb *[connection string] [dump-file-directory-path] [dump-file-name] [version] / accountparams:[paramfile] [log options]*

Where:

Parameter	Description
connection-string	Database TNS Instance Name
dump-file-directory-path	Physical path on database server where the dump should be created. The path must conform to the proper OS path format, and that it should be expected that the path is case-sensitive.
dump-file-name	Filename to give the exported dump file. Note that the name must conform to the proper OS format for the database server, and that it should be expected that the name is case-sensitive.
version	Target database version. Only specify if the dump will be imported into a lower version database.
paramfile	Path to text file containing the list of parameters.

Parameter	Description
log options	Optional parameters for specifying the log file name and/or location. The log file defaults to being named **ExportDB.log**. The log file path defaults to the current working directory. Options: • /LogFile:[filespec] – *filespec* = fully qualified name and path for created log file. If a relative path is given, it is based from the current working folder. – Overrides the *logfile-path* to be the resolved path to the given *filespec*. – Overrides the *logfile-name* to be the resolved name of the given *filespec*. – Do **not** specify this if either of the other logging options are specified. • /LogFilePath:[pathspec] – pathspec = fully qualified path to create the log file in. If a relative path is given, it is based from the current working folder. – Overrides the *logfile-path* to be the resolved path to the given *pathspec*. – Does not change *logfile-name*. • /LogFileName:[filename] – *filespec* = Filename for the log file. – Overrides the *logfile-name* for the log file. – Does not change *logfile-path*.

Command line prompts

If using prompting, you are prompted for the following parameters:

- **Schema Owner User ID**—Database trial/schema owner user ID.
- **Database Administrator User Name**—Name of the Database Administrator User (for example, pfdbadmin).
- **Database Administrator User Password**—Password for the Database Administrator User.

Example

```
exportdb trial1 /backups backup.dmp /prompt
```

```
exportdb trial1 /backups backup.dmp /accountparams:myparamfile.txt
```

```
exportdb trial1 /backups backup.dmp /prompt /logfilepath:c:\exportlogs
```

importdb

Purpose

Imports the given database schema.

Location

<*InstallationDirectory*>\InForm\Bin\DBOra folder.

Usage

importdb *[connection-string] [dump-file-directory-path] [dump-file-name] [from-userid] /Prompt [log options] [/AdditionalParametersFile:optionsfile] [/NotTrial]*

importdb [connection-str*ing] [dump-file-directory-path] [dump-file-name] [from-userid] / AccountParams:[paramfile] [log options] [/AdditionalParametersFile:options-file] [/NotTrial]*

Where:

Parameter	Description
connection-string	Database TNS Instance Name.
dump-file-directory-path	Physical path on database server where the dump is located. **Note:** The name must conform to the proper OS format for the database server, and the name is expected to be case-sensitive.
dump-file-name	Filename of the dump file to import. **Note:** The name must conform to the proper OS format for the database server, and the name is expected to be case-sensitive.
from-userid	Original schema owner User ID when exported.
paramfile	Path to text file containing the list of parameters.

Parameter	Description
log-options	Optional parameters for specifying the log file name and/or location. The log file defaults to being named **ImportDB.log**. The log file path defaults to the current working directory. Options: • /LogFile:[filespec] – *filespec* = fully qualified name and path for created log file. If a relative path is given, it is based from the current working folder. – Overrides the *logfile-path* to be the resolved path to the given *filespec*. – Overrides the *logfile-name* to be the resolved name of the given *filespec*. – Do **not** specify this if either of the other logging options are specified. • /LogFilePath:[pathspec] – pathspec = fully qualified path to create the log file in. If a relative path is given, it is based from the current working folder. – Overrides the *logfile-path* to be the resolved path to the given *pathspec*. – Does not change *logfile-name*. • /LogFileName:[filename] – *filespec* = Filename for the log file. – Overrides the *logfile-name* for the log file. – Does not change *logfile-path*.
options-file	Path to a text file containing list of additional import parameters. These options are added to the default import parameters, allowing customization of the import operation. Operations such as remap_schema and remap_tablespace may be added to the file, each on a separate line, with no intervening spaces. For example: remap_schema=oldschemaownerid:newschemaownerid remap_tablespace=oldtablespacename:INFORM See the impdp documentation for details on import options.
/NotTrial	Prevents pre-import tablespace analysis of the schema prior to importing. This behavior is *only* supported for Trial Schemas, and should be prevented through this parameter for any other type of schema being imported.

Command line prompts

If using prompting, you are prompted for the following parameters:

- **To User Schema Owner User ID**—Database trial/schema owner user ID for the schema to which the dump should be imported.

- **To User Schema Owner User Password**—Password for the schema owner user. The password must conform to local restrictions.
- **Database Adminstrator User Name**—Name of the Database Administrator User (for example, pfdbadmin).
- **Database Administrator User Password**—Password for the Database Administrator User.

Parameter file contents

When using a parameter file, the path to a text file is given. The format of the parameter file is parameter=value, with each value on a separate line, and no spaces between the parameter name, =, and value.

The parameter file *must* contain the following parameters:

- **Trial_user**—Trial/Schema Owner User ID for the schema to which the dump should be imported.
- **Trial_user_pass**—Trial/Schema Owner User Password. Password must conform to local restrictions.
- **Pfdbadmin_user**—Name of the InForm Database Administrator User (for example, pfdbadmin).
- **Pfdbadmin_user_pass**—Password for the InForm Database Administrator User.

The parameter file may contain the following parameters:

- **AdditionalParametersFile**—*options-file*—Identical to specifying on the command line. See command line parameter explanation for details. Only one additional parameter file may be specified, either on the command line or in the parameter file, not both.

Example

```
importdb trial1 /backups backup.dmp pfst63uid /prompt


importdb trial1 /backups backup.dmp pfst631uid /accountparams:myparamfile.txt


importdb trial1 /backups backup.dmp pfst6211 /prompt /
logfilepath:c:\exportlogs


importdb trial1 /backups other.dmp oldotherschemuid /prompt /nottrial
```

create_cap_table.sql

Purpose

Creates the TRIAL_URLS table for the PFCAPAdmin user.

Location

Folder where the reporting software is located, for example, <*Installation_Directory*>\InForm\bin\DBOra\Reporting.

Usage

@create_cap_table.sql

Notes

Run from SQL*Plus with /nolog.

Errors are recorded in the create_cap_table.log file.

> **Note:**
>
> The Oracle InForm database installation and administration scripts are designed to be run using the Oracle InForm Application Server. The scripts can also be run from the Oracle database home on an Oracle InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

DecomTrial

Purpose

Securely removes Oracle InForm study components (study folders, clinical package, operational package, DSN entries, and Oracle InForm study user accounts) from the Reporting and Analysis module.

Location

The Oracle InForm application server folder on the Oracle InForm application server. For example, <*Installation_Directory*>\InForm\bin.

Usage

DecomTrial [*SysAdminNamespace SysAdminUsername TrialNamespace TrialUsername CognosDispatcherURI TrialName* [<*company_code*>]]

Option	Parameter
SysAdminNamespace	Oracle Directory Server admin namespace.
SysAdminUsername	User name for the Cognos system administrator.
TrialNamespace	Custom Authentication Provider (CAP) namespace. Enter informcap.
TrialUsername	Oracle InForm study user who is a member of the following Reporting groups: • Publishers. • Either Sponsor Users or Site Users.
CognosDispatcherURI	Internal URI that the Oracle InForm server uses to communicate with the Cognos Analytics server.
TrialName	Name of the Oracle InForm study.
company_code	The organization ID. Optional. This parameter is required only for Oracle-hosted studies in a single sign-on environment.

Command line prompts

Depending on the syntax used with the DecomTrial command, you are prompted for the following parameters:

- **System Administrator namespace**—Oracle Directory Server admin namespace.
- **System Administrator username**—User name for the Cognos system administrator.
- **Trial namespace name**—Custom Authentication Provider (CAP) namespace. Enter informcap.
- **Trial user username**—Oracle InForm study user who is a member of the following Reporting groups:
  - Publishers.
  - Either Sponsor Users or Site Users.
- **Cognos dispatcher URL**—Internal URI that the InForm server uses to communicate with the Cognos Analytics server.
- **Trial name**—Study name.
- **Company Code**—The organization ID.
  Optional. Reserved for Oracle-hosted studies in a single sign-on environment.
- **System Administrator password**—Password for the Cognos system administrator.
- **Trial user password**—Password for the Oracle InForm study user.

> **Note:**
>
> You are always prompted for the System Administration password and Trial user passwords when you run DecomTrial.

For legacy purposes, you can also pass the parameters by using the **/ accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Parameter file contents

You can pass the following parameters in a parameter file:

- sysadmin_namespace=Oracle Directory Server admin namespace.
- sysadmin_uid=User name for the Cognos system administrator.
- trial_namespace=Custom Authentication Provider (CAP) namespace. Enter informcap.
- trial_user=Study user.
- dispatcher_url=Internal URI that the InForm server uses to communicate with the Cognos Analytics server.
- trial_name=Study name.
- company_code=OrgID assigned for an single sign-on study.

Example

DecomTrial OHSI crnsysadmin informcap mmartin http://server.example.com:9300/p2pd/servlet/dispatch pfstcardio blank

DeployBackup.cmd

Purpose

Backs up a study under a custom archive file name and path. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

DeployBackup <*Study_Name*> <*Archive_File_Name*> <*TNS_Service_Name*> <*Archive_Path*> <*Parameters_File_Name*>

Option	Parameter
Study_Name	Name of the study to be backed up.
Archive_File_Name	Name of the backup file.
TNS_Service_Name	Local Net Service Name for the remote database service.
Archive_Path	Path on the database server where the backup file is saved.
Parameters_File_Name	Name of the parameters file that contains database credentials. The parameters file must contain the following values: trial_user=<*study_schema_user_name*> trial_user_pass=<*study_schema_user_password*> orasystem_user=<*admin_user_name*> orasystem_user_pass=<*admin_user_password*>

DeployEnd.cmd

Purpose

Applies custom system tasks after a successful or failed study deployment. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

DeployEnd <*Study_Name*> <*Deployment_Status*>

Option	Parameter
Study_Name	Name of the deployed study.
Deployment_Status	• 0 for successful study deployment • 1 for failed study deployment

DeployRestore.cmd

Purpose

Restores a backed up study from a specified archive file. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

DeployRestore <*Study_Name*> <*Archive_File_Name*> <*TNS_Service_Name*> <*Archive_Path*> <*Parameters_File_Name*>

Option	Parameter
Study_Name	Name of the study to be restored.
Archive_File_Name	Name of the backup file.
TNS_Service_Name	Local Net Service Name for the remote database service.
Archive_Path	Path on the database server where the backup file is saved.

Parameters_File_Name	Name of the parameters file that contains database credentials.
	The parameters file must contain the following values:
	`trial_user=<study_schema_user_name>`
	`trial_user_pass=<study_schema_user_password>`
	`orasystem_user=<admin_user_name>`
	`orasystem_user_pass=<admin_user_password>`

ExportMigrationFiles

Purpose

Exports the Oracle InForm study and related configurations for migration.

Creates the database dump(s) as named on the database server in the given location, creating logs and export files in the specified log folder.

> **Note:**
>
> The ExportMigrationFiles command copies the InForm Publisher configuration, if it is present.

Location

<Drive:>\OracleHS\InstallSupport

Usage

ExportMigrationFiles *[connection string] /prompt [log options]*

ExportMigrationFiles *[connection string] /accountparams:[paramfile] [log options]*

Where:

Parameter	Description
connection-string	Database TNS Instance Name
paramfile	Path to text file containing the list of parameters.

Parameter	Description
log options	Optional parameters for specifying the log file name and/or location. The log file defaults to being named **ExportMigrationFiles.log**. The log file path defaults to the current working directory. Options: • /LogFile:[filespec] – *filespec* = fully qualified name and path for created log file. If a relative path is given, it is based from the current working folder. – Overrides the *logfile-path* to be the resolved path to the given *filespec*. – Overrides the *logfile-name* to be the resolved name of the given f*ilespec*. – Do not specify this if either of the other logging options are specified. • /LogFilePath:[*pathspec*] – pathspec = fully qualified path to create the log file in. If a relative path is given, it is based from the current working folder. – Overrides the *logfile-path* to be the resolved path to the given *pathspec*. – Does not change *logfile-name*. • /LogFileName:[*filename*] – *filespec* = Filename for the log file. – Overrides the *logfile-name* for the log file. – Does not change *logfile-path*.

Command line prompts

You are prompted for the following parameters:

- **Oracle InForm Database Adminstrator User Name**—Name of the Oracle InForm Database Administrator User (for example, pfdbadmin).
- **Oracle InForm Database Administrator User Password**—Password for the Oracle InForm Database Administrator User.
- **Trial Schema Owner User ID**—Trial database schema owner user ID.
- **Trial Schema Owner User Password**—Trial database schema owner's password for the study.
- **Database Dump File Directory Path**—Location on the Oracle InForm Database Server where the dump file(s) are to be created. Must conform to the Database Servers path format (such as, path separators are \ on Windows, / on Linux).

> **Note:**
>
> The physical path must exist before you run the ExportMigrationFiles command.

- **Trial Database Dump Name**—File name for the Trial Schema Database Dump that is being created. If not specified, it will be defaulted to **<trial-schema-owner-id>.dmp**.

Parameter file contents

When using a parameter file, the path to a text file is given. The format of the parameter file is parameter=value, with each value on a separate line, and no spaces between the parameter name, =, and value.

The parameter file *must* contain the following parameters:

- **Pfdbadmin_user**—Name of the Oracle InForm database administrator (for example, pfdbadmin).
- **Pdbadmin_user_pass**—Password for the Oracle InForm database administrator user.
- **Trial_user**—Trial/Schema Owner User ID for the study to export.
- **Trial_user_pass**—Password for the Trial/Schema Owner User for the study to export.
- **Dump_file_dir_path**—Location on the Database Server where the import dump file(s) are located.

The parameter file may contain the following parameters:

- **Dump_file_name**—Trial Schema dump filename. If not specified, uses the default of **[trial_user].dmp**.
- **Schemas**—Comma delimited list of integration and/or additional schemas to be exported with the trial schema. Additional schemas are specified by their Schema Owner User ID and are exported with the fixed name **[schema-owner-user-id].dmp** to the same dump_file_dir_path that the trial schema is exported to.

> **Note:**
>
> The Database Administrator user must have the rights necessary to export any schemas listed.

> **Note:**
>
> Do not include spaces in the dump file name or the directory path to the dump file.

Example

```
ExportMigrationFiles trial1 /prompt
ExportMigrationFiles trial1 /accountparams:exportparams.txt
ExportMigrationFiles trial1 /prompt  /logfilepath:c:\trialexport
ExportMigrationFiles trial1 /accountparams:exportparams.txt /
logfilepath:c:\trialexport
```

Notes

The following logs are created in the log files path:

- **ExportMigrationFiles.log**—The file contains the output of the actions performed by the ExportMigrationFiles.cmd file.
- **ExportDB.log**—Log generated during the trial schema database export.

- **INF-19122_DetectMnemonicLength.log**—Output from the Mnemonic Length validation script.

Exported files will be located in a subdirectory of the log files path named **ExportFiles**. This folder contains the files that will need to be copied to the target Application Server for the Migration. The Export files created in this folder are:

- **InFormRegistryBackup.txt**—Exported Oracle InForm registry
- **pfadmin_view_service.txt**—Text file containing the information for the servers and studies running on the Oracle InForm Application Server.
- **ImportParametersTemplate.txt**—Example import parameters file with most entries filled in. Requires editing prior to use. There are at a minimum four (4) lines that will need to be edited, all at the top of the file, replacing the bracketed descriptions with the actual settings:
  - trial_user_pass=[trial_user_pass]
  - pfdbapid=[pfdbapid]
  - dump_file_dir_path=[dump_file_dir_path]
  - deployment_backup_folder=[deployment_backup_folder]

  Other settings in the file may be edited, including the trial name, server name, and so on.
- **InFormPublisher.config**—Oracle InForm Publisher Configuration file. Only included if Oracle InForm Publisher is configured.
- **nepWslc.txt**—Oracle InForm Publisher Configuration Key file. Only included if Oracle InForm Publisher is configured.

The database dump files must be copied from the source database server to the target database server, and placed in the dump_file_dir_path specified in the import parameters. These files must all have permissions set such that they are readable by all users.

> **Note:**
>
> If error messages indicating that the system cannot find the paths specified for the System Product Locale and the System Study Locale appear, disregard the messages and continue with the migration.

ImportMigrationFiles

Purpose

Imports an Oracle InForm study database dump file that was created by the ExportMigrationFiles command into a new database instance, and creates and configures the InForm study based on command parameters supplied when the command runs.

> **Note:**
>
> The ImportMigrationFiles command registers the study with Oracle InForm (if the Oracle InForm Adapter parameters are all specified), and with Oracle InForm Publisher (if the Oracle InForm Publisher parameters are provided).

Location

<InstallationDirectory>\InForm\Bin\DBOra

Usage

ImportMigrationFiles *[connection string] /prompt [/AdditionalParametersFile:[optionsfile]] [/IgnoredImportErrorsFile:[ignorederrors]] [log options] [/resume:resumelabel]*

ImportMigrationFiles *[connection string] /accountparams:[paramfile] [/AdditionalParametersFile:[optionsfile]] [/IgnoredImportErrorsFile:[ignorederrors]] [log options] [/resume:resumelabel]*

Where:

Parameter	Description
connection-string	Database TNS Instance Name
paramfile	Path to text file containing the list of parameters.
optionsfile	Optional path to text file containing list of additional import parameters. These options are added to the default import parameters, allowing customization of the import operation.

Note:

Contact Oracle Global Support for assistance if the import fails. This parameter is for advanced/internal Support use only. Operations such as remap_tablespace and remap_schema should be added to the file, each on a separate line, with no intervening spaces. For example:
remap_tablespace=oldtablespacename:INFORM

remap_schema=oldschemaname:newschemaname

Parameter	Description
ignorederrors	Optional path to text file containing list of errors to be ignored during import. This file is formatted as one error per line. The line must exactly match (through case insensitive comparison) the error for it to be ignored. Only lines containing 'ORA-' and 'IMP-' are examined. **Note:** Contact Oracle Global Support for assistance if the import fails. This parameter is for advanced/internal Support use only.
resumelabel	Internal label to resume operations at. **Note:** Contact Oracle Global Support for assistance if the import fails. This parameter is for advanced/internal Support use only.

Parameter	Description
log options	Optional parameters for specifying the log file name and/or location. The log file defaults to being named **ImportMigrationFiles.log**. The log file path defaults to the current working directory. Options: • /LogFile:[*filespec*] – *filespec* = fully qualified name and path for created log file. If a relative path is given, it is based from the current working folder. – Overrides the *logfile-path* to be the resolved path to the given *filespec*. – Overrides the *logfile-name* to be the resolved name of the given *filespec*. – Do **not** specify this if either of the other logging options are specified. • /LogFilePath:[*pathspec*] – pathspec = fully qualified path to create the log file in. If a relative path is given, it is based from the current working folder. – Overrides the *logfile-path* to be the resolved path to the given pathspec. – Does not change *logfile-name*. • /LogFileName:[*filename*] – *filespec* = Filename for the log file. – Overrides the *logfile-name* for the log file. – Does not change *logfile-path*.

Command line prompts

If using prompting, you will be prompted for the following parameters:

Parameter	Description
InForm Study Name	Name of the Oracle InForm study you will create to import the dmp file.
InForm Server Name	Name of the Oracle InForm server to run the study.
Study Schema Owner User ID	Study database schema owner user id for the migrated study.
Study Schema Owner User Password	Study database schema owner's password for the migrated study. Must conform to local password requirements.
Original Study Schema Owner's User ID	Study Schema Owner's User ID from the source environment. If not using a new User ID in the migrated study, this can be left blank.
InForm Database Administrator User ID	Name for the Oracle InForm Database Administrator. Defaults to **pfdbadmin** if left blank.
InForm Database Administrator Password	Password for the Oracle InForm Database Administrator.

Parameter	Description
Database Dump File Directory Path	Location on the Oracle InForm Database Server where the dump file(s) are located. Must conform to the Database Servers path format (for example, path separators are \ on Windows, / on Linux)
Trial Database Dump Name	File name for the Trial Schema Database Dump that is being imported. Defaults to **<trial-schema-owner-id>.dmp** if not specified.
Dump File InForm Version	The full version of Oracle InForm that the study was exported from (for example, 6.2.1.0). Only migrations from InForm 6.2.0.0 and up are supported.
Trial Type	Study type for the imported study. • LIVE • UAT • TRN • DEV • QA
Trial Approval	• TRUE if you require approval for any deployment package. • FALSE if your study does not require deployment package approval. **Note:** The physical path must exist before you run the ImportMigrationFiles command.
Deployment Backup Folder	Path on the Oracle InForm database server that will be used for database recovery during study deployment. Path must conform to the Database Server OS Path format (for example, path separators are \ on Windows, / on Linux). For example /u01/app/deploybackup. **Note:** The physical path must exist before you run the ImportMigrationFiles command.
Deployment Service Port	Port number for Central Designer to communicate with the InForm application server to transmit deployment packages. Defaults to 14040 if left blank.

Parameter	Description
Auth Service Port	Port number for the InForm application server to authenticate users for the Reporting and Analysis module. Defaults to 14041 if left blank.
ODM Service port	Port number for the Clinical Data API to exchange SOAP requests through HTTP. Defaults to 14042 if left blank.
InForm Adapter Schema Owner User ID	Oracle InForm Adapter Schema User ID if the study is to be registered with Oracle InForm Adapter. Leave blank if not registering the study.
InForm Adapter Schema Owner Password	Oracle InForm Adapter Schema User Password if the study is to be registered with Oracle InForm Adapter. Leave blank if not registering the study.
InForm Adapter Virtual Directory URL	Oracle InForm Adapter Schema Virtual Directory URL if the study is to be registered with Oracle InForm Adapter. Leave blank if not registering the study.
InForm Publisher Trial Name from Source Environment	Name of the study as configured with Oracle InForm Publisher in the source environment. May be left blank if the study is not being renamed during the migration.
Path to InForm Publisher Configuration File	Path to the Oracle InForm Publisher configuration file from the source app server if the trial is to be registered with Oracle InForm Publisher. Leave blank if trial is not to be registered with Oracle InForm Publisher.
Path to InForm Publisher Key File	Enter the path to the Oracle InForm Publisher configuration Key file from the source application server if the study is to be registered with Oracle InForm Publisher. Leave blank if the study is not to be registered with Oracle InForm Publisher.

Parameter file contents

When using a parameter file, the path to a text file is given. The format of the parameter file is parameter=value, with each value on a separate line, and no spaces between the parameter name, =, and value.

The parameter file *must* contain the following parameters:

Parameter	Description
InForm_trial_name	Oracle InForm study name to create.
InForm_server_name	Name of the Oracle InForm server to create the imported study in.
Trial_user	Trial Schema Owner User ID for the imported study.
Trial_user_pass	Password for the Trial Schema Owner User for the imported study. Must conform to local password requirements.
Pfdbapid	Oracle InForm Database Administrator Password.

Parameter	Description
Dump_file_dir_path	Location on the Database Server where the import dump file(s) are located.
UpgradeFromInFormVersion	The full version of Oracle InForm that the study was exported from (for example, 6.2.1.0). Only migrations from InForm 6.2.0.0 and up are supported.
Trial_type	• UAT • LIVE • TRN • DEV • QA
Trial_approval	TRUE or FALSE.
Deployment_backup_folder	Path on the Oracle InForm Database server that will be used for database recovery during study deployment.

The parameter file may contain the following additional parameters:

Parameter	Description
From_user	Study Owner User ID in source environment if different from trial_user. Not needed if the Schema Owner User ID is not being changed for the target Application Server.
Pfdbauid	Oracle InForm Database Administrator User ID. Defaults to pfdbadmin if not specified.
Dump_file_name	Trial Schema dump filename. If not specified, uses the default of **[trial_user].dmp**.
Deployment_service_port	HTTP port number for Oracle Central Designer to communicate with the Oracle InForm application server to transmit deployment packages. Recommended port is 14040. However, any port other than 80 or 443 can be used. Defaults to 14040 if not specified.
Auth_service_port	HTTP port number for Oracle InForm to authenticate users for the Reporting and Analysis module. Recommended port is 14041. However, any port other than 80 or 443 can be used. Defaults to 14041 if not specified.
Odm_service_port	HTTP port number for the Clinical Data API to exchange SOAP requests. Recommended port is 14042. However, any port other than 80 or 443 can be used.
Odm_service_port_https	HTTPS Port for the ODM service, no HTTPS access if not specified.
IgnoredImportErrorsFile	Path to file containing list of import errors to be ignored.
AdditionalParametersFile	Path to file containing additional import parameters.

Parameter	Description
AdditionalSchemas	Comma delimited list of additional schemas to be imported. Names are case sensitive and must match the base name of the schema dump file that was or will be copied to the database server.
Adapter_user	Oracle InForm Adapter Schema UID if study is to be registered with Oracle InForm Adapter.
Adapter_user_pass	Oracle InForm Adapter Schema PID if study is to be registered with Oracle InForm Adapter.
Adapter_Url	Oracle InForm Adapter URL if study is to be registered with Oracle InForm Adapter.
Publisher_trial_name	Study name as it appearsin the source Publisher Configuration. May be left blank if the study is not being renamed during import.
Publisher_configfile	Path to source Oracle InForm Publisher Configuration file if study is to be registered with Oracle InForm Publisher.
Publisher_keyfile	Path to source Oracle InForm Publisher Configuration Key file if study is to be registered with Oracle InForm Publisher.

Notes

Based on the parameters submitted when the command runs, the ImportMigrationFiles command imports the Oracle InForm study database dump file, and performs study configuration tasks, including:

- Creates the Oracle InForm server and study.
- Upgrades the study schema.
- Updates study statistics.
- Sets the MedML Installer server.
- Upgrades resources.
- Terminate obsolete users.
- Sets the deployment web service port.
- Sets the Authentication service port.
- Sets the ODM service port.
- Configures Oracle InForm Adapter for the study.
- Configures Oracle InForm Publisher for the study.

grant_dba_privs.sql

Purpose

Grants DBA privileges to the rptinstall user, which is used for install and uninstall operations.

Location

Folder where the reporting software is located, for example, <*Installation_Directory*>\InForm\bin\DBOra\Reporting.

Usage

@grant_dba_privs.sql rptinstall

Notes

Log on to the study database as SYSDBA.

The name of the DBA user must be **rptinstall**.

> **Note:**
>
> The Oracle InForm database installation and administration scripts are designed to be run using the Oracle InForm Application Server. The scripts can also be run from the Oracle database home on an Oracle InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

grant_user_privs.sql

Purpose

Grants database user privileges to the user that owns the study schema.

Location

Folder where the reporting software is located, for example, <*Installation_Directory*>\InForm\bin\DBOra\Reporting.

Usage

@grant_user_privs.sql <*study schema owner*>

<*study schema owner*>—Database user name that holds the study schema.

Example

@grant_user_privs.sql pfst62uid

Notes

Run from SQL*Plus with /nolog.

Connect to the study database as a user with the privilege to grant user database privileges.

The script produces a log called grant_user_privs.log.

> **Note:**
>
> The Oracle InForm database installation and administration scripts are designed to be run using the Oracle InForm Application Server. The scripts can also be run from the Oracle database home on an Oracle InForm Reporting Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

ImportUtility

Purpose

Securely import reporting content you export using Cognos commands to a new instance of the Oracle InForm Reporting server.

Location

The Oracle InForm application server folder on the Oracle InForm application server. For example, <*Installation_Directory*>\InForm\bin.

Usage

ImportUtility [-all | -import | -nopwd | -pfmtr]

Option	Parameter
-all	• Creates a secure staging folder on the Reporting server accessible to system administrators. The name of the staging folder is SecureImport_<*timestamp*>. • Creates the import specification object on the Reporting server accessible to system administrators. • Imports the content from a password-protected deployment package to the SecureImport_<*timestamp*> folder and makes it accessible only to system administrators. • Copies the imported content to the Public folders on the Reporting server. • Deletes the SecureImport_<*timestamp*> folder, all its content, and the import specification object.
-import	• Creates a secure staging folder on the Reporting server accessible to system administrators. • The name of the staging folder is SecureImport_<*timestamp*>. • Creates the import specification object on the Reporting server accessible to system administrators. • Imports the content from a password-protected deployment package to the SecureImport_<*timestamp*>. • Deletes the import specification object.

Option	Parameter
-nopwd	• Creates a secure staging folder on the Reporting server accessible to system administrators. The name of the staging folder is SecureImport_<*timestamp*>. • Creates the import specification object on the Reporting server accessible to system administrators. • Imports the deployment package content to the SecureImport_<*timestamp*> folder and makes it accessible only to system administrators. • Copies the imported content to the Public folders on the Reporting server. • Deletes the SecureImport_<timestamp> folder, all its content, and the import specification object.
-pfmtr	• Creates a secure staging folder on the Reporting server accessible to system administrators. The name of the staging folder is SecureImport_<*timestamp*>. • Creates the import specification object on the Reporting server accessible to system administrators. • Imports the content to the SecureImport_<*timestamp*> folder. • Deletes the import specification object.

Command line prompts

Depending on the option you specify with the ImportUtility, you are prompted for the following parameters:

- **sysadmin_namespace**—Cognos system administrator user namespace.
- **sysadmin_uid**—User name for the Cognos system administrator.
- **sysadmin_pass**—Cognos system administrator password.
- **dispatcher_url**—Internal URI that the Oracle InForm server uses to communicate with the Cognos Analytics server.
  This Cognos Analytics parameter is set in the Cognos Analytics Customization for Oracle InForm wizard. The parameter setting is stored in the cogstartup.xml file and corresponds to the Reporting internal URI value on the Admin > System Configuration page of the Oracle InForm application. For example, http://example.com:9300/p2pd/servlet/dispatch.
- **archive_name**—Name of the deployment package containing the reporting content you want to import into the Reporting server.
- **archive_pass**—Password for the deployment package.

> **Note:**
>
> The archive_pass parameter is not required for the -nopwd or the -pfmtr option.

- **cap_namespace**—informcap.
- **trial_uid**—Owner of the study database schema.

- **trialuser_pwd**—Password for the owner of the study database schema.
- **trial_name**—Name of the Oracle InForm study.
- **company_code**—The organization ID. Optional.
  This parameter is required only for Oracle-hosted studies in a single sign-on environment.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Notes

- The **-import** and **-pfmtr** command options should be used to stage custom reports before distributing them to multiple studies.
  To move the content from the staging folder to the study folders and set study-specific permissions, use the **pfmtrsetuputil** command.
- The **-nopwd** and **-pfmtr** command options are used when you are importing a deployment package that is not password protected.
  These options should be used only when there is no clinical data present in the deployment package.

Example

ImportUtility -all "E\scripts\import.txt"

informprepora

Purpose

Creates the pfdbadmin user if you did not set it up during the Oracle InForm core software installation by selecting the **Prep Oracle** checkbox.

Location

<*Installation_Directory*>\InForm\bin folder.

Usage

informprepora <*oracle_connection_string*>

Command line prompts

You are prompted for the following parameters:

- **dba user**—Oracle account created during the Oracle database installation process.
- **dba password**—Password for the Oracle account created during the Oracle database installation process.
- **pfdbauid**—Name of the Oracle InForm Admin database user.
- **pfdbapid**—Oracle InForm Admin database user password.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Example

informprepora trialdb

mtsora102

Purpose

Sets up Oracle XA transaction support.

The mtsora102 does the following:

1. Runs the XAVIEW.sql script as a user with SYSDBA credentials to create the V$XATRANS$ view:

   ```
   %ORACLE_HOME%\RDBMS\ADMIN\XAVIEW.SQL
   ```

2. Grants SELECT access to the public on these views:

   ```
   Grant Select on V$XATRANS$ to public

   Grant Select on sys.dba_pending_transactions to public
   ```

   > **Note:**
   >
   > This example grants SELECT access to public, however in your environment SELECT access should be granted to the profile associated with your database.

3. Modifies the following Registry keys in HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSDTC\Security

   ```
   "NetworkDtcAccess"=dword:00000001

   "NetworkDtcAccessAdmin"=dword:00000001

   "NetworkDtcAccessTransactions"=dword:00000001

   "XaTransactions"=dword:00000001

   "NetworkDtcAccessOutbound"=dword:00000001

   "NetworkDtcAccessInbound"=dword:00000001
   ```

4. Modifies the following Registry key in HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\MSDTC\XADLL

   ```
   "mtxoci.dll"="C:\\WINDOWS\\system32\\mtxoci.dll"
   ```

Location

<*Installation_Directory*>\InForm\bin folder.

Usage

MTSORA102.exe <*DBInstance*> <*SysUID*> <*SysPID*> *[Oracle Home Key]*

MTSORA102.exe <*DBInstance*> */accountparams:<filename> [Oracle Home Key]*

MTSORA102.exe <*DBInstance*> */prompt [Oracle Home Key]*

Where:

Parameter	Description
<Skip MTSORA102.SQL>	This parameter must be set to False to complete the setup of the database for the Oracle InForm installation process.
<DBInstance>	Database TNS Instance Name.
<SysUID>	Oracle Sys User ID.
<SysPID>	Oracle Sys User Password.
/accountparams:<filename>	Optionally enclosed in quotes, filename is the name of a file containing the required account credentials. See below for account parameter file format.
/prompt	Prompt for required account credentials.
[Oracle Home Key]	Optional name of the key in the registry under HKEY_LOCAL_MACHINE\Software\ORACLE for the Oracle instance associated with InForm. If not specified, will attempt to read the value from the InForm registry value OracleHome.

Account parameters file consists of the following key=value pair:

- **orasys_user**—<Oracle Sys User ID>
- **orasys_user_pass**—<Oracle Sys User Password>

Command line prompts

You are prompted for the following parameters:

- **orasys_user**—Oracle user account with SYSDBA privileges.
- **orasys_user_pass**—Password for the Oracle user account with SYSDBA privileges.

For legacy purposes, you can also pass the parameters by using the ***/ accountparams:****"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Example

mtsora102 dev1 KEY_OraClient11g_CLIENT1 /accountparams:"E:\scripts\mtsora.txt"

Notes

When setting up Oracle XA transaction support manually, run both the mtsora102 and the oramtsadmin.sql script. For more information, see oramtsadmin.sql.

For a more complete description, refer to one of the following articles:

- **Microsoft Knowledge Base**—Q193893 – Info: Using Oracle with Microsoft Transaction Server and COM+.
- **MSDN Online Library**—Setting up MTS to Access Oracle.
- Microsoft KB Article 899191.
- Microsoft KB Article 817066 and 891801.

oramtsadmin.sql

Purpose

Creates the MTS administrative user and schedules automatic transaction recovery. Run oramtsadmin.sql after you run the mtsora102 command.

Location

%ORACLE_CLIENT_HOME%\oramts\admin folder

Usage

@oramtsadmin.sql

Notes

Run as a user with SYSDBA credentials.

Run the script against all Oracle instances connected to the InForm application server.

> **Note:**
>
> The Oracle InForm database installation and administration scripts are designed to be run using the Oracle InForm Application Server. Running them from a different Windows Oracle client or from a non-Windows Oracle client or database home may work, but is not supported.

pfadmin

Purpose

Sets up the Oracle InForm server environment. The parameters are stored in the registry. Therefore, you need local administrator privileges to run the utility.

Location

<*Installation_Directory*>\InForm\bin folder.

Usage

pfadmin [CHECKREG | CONFIG | CREATEREPORTINGMODEL | HELP | KILLSERVER | PING | PUBLISHREVIEWSCHEMA | RECREATEREVIEWSCHEMA | REMOVE | RECREATEREPORTINGSCHEMA | RULESCANPROCESS | RULESCANVIEW | SETSERVER | SETUP | SETLANGUAGE | START | STOP | UNINSTALL | UPDATEWORKFLOW| VIEW]

Option	Purpose and Syntax
CHECKREG [/Del] [/DelAll]	Displays the current Oracle InForm Server COM and MTS components in the NT registry. **WARNING:** Be careful to remove the server(s) or uninstall the service before using either of the delete options: • [/Del]—Removes obsolete settings. • [/DelAll]—Removes the settings of all servers.

Option	Purpose and Syntax
CONFIG Service [/AdminDB *DBServer*] | [/AdminDSN *DsnName*] | [/*AdminDN*] | [/EmailSender *valid_email_address*] | [/PfUser] | [/SysDBA] [/HelpUrl *URL of internal help site index.html page*] [/SearchUrl “https://docs.oracle.com/apps/search/search.jsp?category=industries&product=*product_id*&q=”]	Configures an existing service. • [/AdminDB *DBServer* [SQL]]—Sets the ODBC DSN for the InformAdmin database. Make sure that *DBServer*, *UID*, and *PID* are the same ones that were used to create the InformAdmin database. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/AdminDSN *DsnName*]—Creates the ODBC DSN Oracle InForm software with the default database server, using the specified user name and password. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/EmailSender *valid_email_address*]—Creates the PFMngrExecutionPlan registry key and populates the EmailSender subkey with an email address to use during autodeployment notifications. • [/PfUser]—Creates the PfUser_*computername* account during the Oracle InForm installation. The account is for Microsoft MTS packages used by Oracle InForm servers. In general, you do not need to configure the account. If you change the password through NT User Manager, you must reconfigure the InForm Service with the new password. • [/SysDBA]—Sets the Oracle InForm Service DBA user name and password. You can use this command to change the pfdbadmin password as needed. If you want to change the Oracle InForm Service DBA name, modify the provided SQL script InFormPrepORA.sql with the new user name and password, then run the script as a user with SYSDBA credentials. After running the script, use this command option to configure the Oracle InForm Service to use the new Oracle InForm Service DBA. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters . • [/HelpUrl *URL of internal help site index.html page*]—Changes the help link in the Oracle InForm user interface so that it points to a local URL instead of the default location on the Oracle Help Center (OHC). • [/SearchUrl “https://docs.oracle.com/search/?q=*search_term*&category=industries&product=en%2Findustries%2Fhealth-sciences%2Finform%2F*release*—Changes the OHC documentation library where searches are performed from the search field in the upper-right corner Help menu of the Oracle InForm user interface.

Option	Purpose and Syntax
	To update the Help location, refer to the *User Guide for Administrators* .
CONFIG Server *ServerName* [Automatic|Manual]	Configures the startup mode for an existing server as either Automatic or Manual.
CONFIG Trial *TrialName* [Automatic | Manual] | [/TriDSN *DSN* | [/RndDSN *DSN*] | [/Rnd [*TNS_Service_Name*]] | [/Host *ServerName*] | [/TrialType [UAT | LIVE | TRN | DEV | QA]] | [/TrialApproval [TRUE | FALSE]] | [/TrialMaintenance [ON | OFF]] | [/DeployBackupFolder <"path_to_a_database_server_folder">]	Configures an existing study. • [Automatic | Manual]—Configures the study startup mode. • [/TriDSN *DSN*]—Configures the study ODBC DSN. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/RndDSN *DSN*]—Configures the study to use the randomization source dataset name. • [/Rnd [*TNS_Service_Name*]—Creates a study randomization source dataset name. • [/Host *ServerName*]—Moves the study from current host server to another server in the Oracle InForm Service. • [/TrialType [UAT | LIVE | TRN | DEV | QA]]—Specify the type of study. Live studies are for production environments, UAT studies are for user acceptance testing, Training, Dev, and QA are for internal use. • [/TrialApproval [TRUE | FALSE]]—Specify whether a deployment package needs approval before it can be deployed to the Oracle InForm application. By default, Live and UAT studies are set to TRUE. Training, Dev, and QA studies are set to false. • [/TrialMaintenance [ON | OFF]]—Specify that a study is in Maintenance mode and is unavailable to users. This is set during study deployment. • [/DeployBackupFolder <"path_to_a_database_server_folder">]—Specify the path to an existing folder on the database server. This folder is the location used to store copies of the study database during deployment package processing.
CONFIG CDD *TrialName* [Enable | Disable] | [*DSN* [Active | Inactive]] | [*DSN StudyLocale*]	Configures an existing CDD: • [Enable | Disable]—Enables or disables the CDD for a particular study. • [*DSN* [Active | Inactive]]—Makes a CDD DSN active or inactive for a particular study. • [*DSN StudyLocale*]—Specifies the study locale used for the unit symbol translation that is stored in the CDD column for the unit symbol. • *path_to_dsn_password_file*—Configures an existing CDD DSN with the User ID and password specified. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.

Option	Purpose and Syntax
CONFIG WEBSERVICE *TrialName* [AuthService | DeploymentService | ODMSubmitService] [Add [HTTP:*port* | HTTPS:*port* cert:*thumbprint*] | Remove]	Associates a web service with a study and specifies the port number each service should use. • [AuthService | DeploymentService | ODMSubmitService]—The type of service • [Add [HTTP:*port* | HTTPS:*port* cert:*thumbprint*] | Remove]—Creates or removes an association between a study and a web service
CREATEREPORTINGMODEL *TrialName*	Creates the Reporting model from scratch.
HELP	Lists all the options of the pfdamin command.
KILLSERVER *ServerName*	Stops server MTS packages without stopping studies on the server.
PING *MachineName* 1 | 2 | 3:*ServerName* | *4:ServerName* | 5:*ServerName* [Port#]	Pings the Oracle InForm Service or a particular server. The ping levels are: • 1—Ping the Oracle InForm Service. • 2—Ping the Oracle InForm Service and all Oracle InForm server(s). • 3—Ping the specified server. • 4—Ping and get information about the specified server. • 5—Ping the specified server and dump the user session to a server-side file. • [Port#]—Allows you to specify the port number the echo server is listening on, if you changed it.
PUBLISHREVIEWSCHEMA *TrialName* [/FORCE]	Applies all study version changes to the review schema clinical tables. If you use the /FORCE option, the Oracle InForm application does not check to see if there are study version changes that are not applied, and makes sure all study version changes are applied. **Note:** The /FORCE option does not drop and re-create the clinical tables. It makes the clinical tables match the study version. The /FORCE option should only be used if recommended by Oracle. This operation is synchronous. The study is unavailable during the operation.

Option	Purpose and Syntax
RECREATEREVIEWSCHEMA [*TrialName StudyLocale_ISO_name*]	Recreates the review schema database tables from the Oracle InForm schema. Depending on the size of the study, this can take a long time to run. The Review schema study locale is chosen automatically when a study is first installed, but can be changed using this command.
REMOVE [Server *ServerName*] | [Trial *TrialName* [/DSN]] | [CDD *TrialName* [/All | *DSN*]	Removes an existing server, study, or CDD. • [Server *ServerName*]—Removes an Oracle InForm server from the Oracle InForm Service. Studies should be either reconfigured to other servers or removed before this command is run. • [Trial *TrialName* [/DSN]]—Deletes the named study from the Oracle InForm Service. The Web virtual directories and folders for the study are physically removed. Use the /DSN option to remove the study-related DSNs. • [CDD *TrialName* [/All | *DSN*]—Removes either all CDD DSNs in the specified study or the given CDD by DSN. **Note:** Before using the PFADMIN REMOVE command, verify that IIS is running.
RULESCANPROCESS *StudyName*	Scans existing rules and execution plans, and outputs a list of rules that violate the allowed rule objects list and marks the rules as valid or invalid.
RULESCANVIEW *StudyName*	Scans existing rules and execution plans, and outputs a list of rules that violate the allowed rule objects list. This is an informational scan only; it does not mark rules as valid or invalid.

Option	Purpose and Syntax
SETSERVER [Site *TrialName MachineName*] | [MedMLInstaller *TrialName MachineName*] | [Reporting *TrialName ReportingUrl*] | [ReportingAN *TrialName AuthenticationNamespace*] | [ReportingUR *TrialName UserRoot*] | [ReportingInt *TrialName ReportingInternalURI]* | [pfreportinguserpw *TrialName*] | [systempw *TrialName*] | [TrialURL *TrialName TrialURL*	Changes the MedML and Site servers and sets the Reporting configuration settings. • [Site *TrialName MachineName*]—Not supported. • [MedMLInstaller *TrialName MachineName*]—Not supported. • [Reporting *TrialName ReportingUrl*]—Set Cognos URL for study. • [ReportingAN *TrialName AuthenticationNamespace*]—Set Cognos AuthenticationNamespace for study. • [ReportingUR *TrialName UserRoot*]—Set Cognos UserRoot for study. • [ReportingInt TrialName ReportingInternalURI]—Set the internal URI that the Oracle InForm server uses to communicate with the Cognos server. • [pfreportinguserpw *TrialName*]—Run this pfadmin command after the password for the pfreportinguser is changed in the Oracle InForm user interface to set a property used by Reporting when it needs the credentials of the pfreportinguser user for building the model. pfreportinguser is the preferred studyuser to run pfrinit to configure Cognos for each study. • [systempw *TrialName*]—Set the password for the system user for the specified study. The command also activates the system user. • TrialURL *TrialName TrialURL*]—Set the vanity URL for the specified study. Enter the URL that you use to access the study, including the tenant name. **Note:** The SETSERVER command requires that you set the Default Authentication Level property of the Oracle InForm server to Connect. To set this property: 1. Select Administrative **Tools** > **Component Services** > **My Computer - Properties.** 2. Set the **Default Properties - Default**

Option	Purpose and Syntax
	distributed communication properties - Default Authentication Level value to Connect.
SETUP Server *ServerName* [Automatic]	Creates a new Oracle InForm server in the InForm Service. • [Automatic]—The server is automatically started with the Oracle InForm Service. Manual startup is the default.
SETUP Trial *TrialName ServerName* [/DB *OracleConnStr]* | [/DSN *TriDSN* [Automatic]	Creates a study on the given Oracle InForm server with the option to either create a new ODBC DSN or use an existing one. The server has to be created. The study startup mode is Manual by default. Use the Automatic option to automatically start the study when the Oracle InForm server that hosts the study is started. • [/DB *OracleConnStr UID PID*]—Creates an ODBC DSN *TrialName* with the given *ServerName*, *UID*, and *PID*. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/DSN *TriDSN UID PID* [Automatic]]—Configures the created study *TrialName* to use the given study dataset name *TriDSN*, *UID*, and *PID*. The study must be present in the ODBC DSN. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. **Note:** Before using the /DSN command, verify that IIS is running.

Option	Purpose and Syntax
SETUP CDD *RefName TrialName* /DB *OracleConnStr DSN* [/TBSP *OraTBSP*] [Active] [NoSchema]	Sets up a new CDD DSN associated with the given CDD refname. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/TBSP *OraTBSP*]—Defines the Oracle tablespace for the CDD schema. • [Active]—Specifies that the DSN is transactional. • [NoSchema]—Indicates that no new CDD schema should be created during setup. The existing database is not touched. By default, the user is dropped and the Oracle database destroyed. Then, a new schema is created and populated based on the RefName that defines the schema. **Note:** To execute this command successfully, the study must be started.
SETUP CDD *RefName TrialName* /DSN *DSN* [/TBSP *OraTBSP*] [Active] [NoSchema]	Sets up an existing DSN associated with the given CDD RefName. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.[/TBSP OraTBSP]—Defines the Oracle tablespace for the CDD schema. • [Active]—Makes the DSN transactional. • [NoSchema]—Indicates that no new CDD schema should be created during setup. The existing database is not touched. By default, the user is dropped and the Oracle database destroyed. Then, a new schema is created and populated based on the RefName that defines the schema. **Note:** To execute this command successfully, the study must be started.
SETLANGUAGE *[IsoLanguageName]* | en-US | ja-JP |	Sets the Oracle InForm product locale language. en-US and ja-JP are currently supported.

Option	Purpose and Syntax
START [Server *ServerName*] | [Trial *TrialName*]	Starts an existing Oracle InForm server or study. • [Server *ServerName*]—Starts an existing Oracle InForm server by server name. • [Trial *TrialName*]—Starts an existing study by study name.
START [Trial *TrialName* [/Design]]	Starts the study in design mode. This means you can install study components that are not completely designed (strict checking is not in force). By default, the study starts in production mode.
STOP [Server *ServerName* [/Trials]] | [Trial *TrialName* [/Anyway]]	Stops an existing Oracle InForm server or study. • [Server *ServerName* [/Trials]]—Stops an existing Oracle InForm server by server name. By default, a running server can be stopped if there is no study running and no other application connected to it. The Trials keyword stops all running studies, and then stops the server. • [Trial *TrialName* [/Anyway]]—Stops the named study. The Anyway keyword stops a study regardless of any connections or HTTP requests.
UNINSTALL	Removes all Oracle InForm servers and studies, and then removes the Oracle InForm service settings PfUser_computername and the MTS library package. **Note:** The Oracle InForm service must be running for the command to work.

Option	Purpose and Syntax
UPDATEWORKFLOW [*StudyName* ["siteMnemonic"] [-UpgradeStudyVersion]] | [SetWFThreadsNumber *StudyName NumberOfThreads*] | [GetWFThreadsNumber *StudyName*]	Configures and performs the update workflow process. • [*StudyName* [*siteMnemonic*] [-UpgradeStudyVersion]]—Triggers the update workflow process. If a *siteMnemonic* is specified, the process is executed only at that site, otherwise it is executed at all sites. The *siteMnemonic* must be enclosed in double quotes if it contains a space. If the flag -UpgradeStudyVersion is used, the site is updated to the latest study version before update workflow runs. • [GetWFThreadsNumber *StudyName*]—Returns the current setting for the number of threads used for update workflow for the study. The default is 2. • [SetWFThreadsNumber *StudyName NumberOfThreads*] —Sets the number of threads processing the workflow update for the study. The value can be set between 1 and 32. **Caution:** You should not adjust this setting without input from Oracle Global Support. If the performance of your study deployment or study migration is too slow (for example, timeouts happen), contact Oracle Global Support for assistance.

Option	Purpose and Syntax
VIEW [Languages] | [Service] | [Server *ServerName*] | [Trial *TrialName*] | [CDD *TrialName*] | [Reporting *TrialName*]	Displays a monitoring list of all servers in the InForm service, all studies in servers, or all RefNames for CDD DSNs configured for a study. • [Languages]—Lists installed languages without starting the Oracle InForm Service. • [Service] – Lists all the servers and studies in the Oracle InForm service. – Lists installed product languages as well as the actual installed product language. • [Server *ServerName*]—Lists each server by server name and studies hosted on that server. • [Trial *TrialName*]—Lists a study by its name. • [CDD *TrialName*]—Lists the RefNames for each CDD DSN configured for the specified study. • [Reporting *TrialName*]—Lists the current status of Reporting. – States whether the study is configured for Reporting. – Specifies the type of reporting setup, for example samedb. – Specifies the reporting username. – Gives the date of the last Cognos model update. – Reports if the Reporting database is up-to-date. – States whether Oracle streams are working properly (if applicable).

Command line prompts

Depending on the options you specify, you are prompted for the following parameters:

For **pfadmin setup** or **pfadmin config** commands:

- **uid**—Oracle InForm study database user.
- **pid**—Oracle InForm study database user password.

For **pfadmin setserver** commands:

- **pid**—Oracle InForm study database user password.

Examples

Check the status of InForm Reporting:

```
pfadmin view reporting pfst63
```

Check the status of InForm servers and studies on an InForm Service:

```
pfadmin view service
```

Start the demo InForm server:

```
pfadmin start server demo
```

Start the sample study:

```
pfadmin start study sample
```

Stop all studies running on the demo InForm server, and then stop the demo server:

```
pfadmin stop server demo /Trials
```

Set the password and activate the system user account:

```
pfadmin setserver systempw pfst63
```

Notes

Any arguments containing commas, equal signs, or spaces must be enclosed within double quotes.

pfcognosconfig

Purpose

Configures an Oracle InForm study to work with Cognos Analytics. The PFCognosConfig utility is a command-line alternative to the **Oracle InForm Reporting Configuration Wizard**.

PFCognosConfig can be run multiple times to change reporting parameters. If the reporting study user password changes, PFCognosConfig.exe must be run to tell Oracle InForm about the new password.

When PFCognosConfig is run multiple times for a study, each run after the first does not need to specify all of the parameters; only the changed parameters need to be specified.

Location

<*Installation_Directory*>\InForm\bin folder.

Usage

```
pfcognosconfig ["path_to_password_file"]
```

Option	Parameter
path_to_password_file	When specified, includes the path to a text file that contains the user name and passwords required to run the command. If the parameter file is not specified, the command prompts for the required user names and passwords. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Command line prompts

You are prompted for the following parameters:

- **trialname**—Name of the Oracle InForm study.
- **log_file**—Name of output log.
- **namespace**—informcap
- **gateway_uri**—External public URI that communicates with the Cognos Analytics Gateway Services from an end user's browser.
- **dispatcher_uri**—Internal URI that the InForm server uses to communicate with the Cognos Analytics server.
- **root_folder**—The top-level reporting folder for the company.
- **reporting_samedb**—True if the study and the Reporting database are on the same server.
- **trial_web_service**—Oracle InForm authentication web service URL.
- **register_db_server**—Study database user registered with Cognos.
- **register_db_user**—Password for the database user registered with Cognos.
- **remove**—When set to **true**, reporting is turned off for the specified study and clears all reporting settings for the study.

Parameter file contents

The following parameters are required for the pfcognosconfig command password file:

Option	Description
trialname=<*studyname*>	Name of the Oracle InForm study.
log_file=<*outputlog*>	Name of output log. **Example:** nocreatorgcap.log. (Optional).

> **Note:**
>
> Use the same case as when the study was created by the Oracle Central Designer deployment package.

Option	Description
namespace=<*cap_namespace*>	Custom Authentication Provider (CAP) namespace. Enter informcap.
gateway_uri=<*gateway_uri*>	External public URI that communicates with the Cognos Analytics Gateway Services from an end user's browser. This Cognos parameter is set in the Cognos Analytics Gateway Customization for Oracle InForm wizard. The parameter setting is stored in the cogstartup.xml file. **Example:** http://www.example.com:80(443)/cognos/bi
dispatcher_uri=<*dispatcher_uri*>	Internal URI that the Oracle InForm server uses to communicate with the Cognos Analytics server. This Cognos parameter is set in the Cognos Analytics Customization for Oracle InForm wizard. The parameter setting is stored in the cogstartup.xml file and corresponds to the Reporting internal URI value on the Admin > System Configuration page of the InForm application. Used when running command line utilities that perform SDK operations, such as pfrinit and DecomTrial. **Example:** http://www.example.com:9300/p2pd/servlet/dispatch
root_folder=/<*content*>/<*folder*>[@name='<*studyname*>']	The top-level reporting folder for the company. Default: /content/folder[@name='<*studyname*>']
reporting_samedb=<true | false>	True if the study and the Reporting database are on the same server.
trial_web_service=<*URL*>	Oracle InForm authentication web service URL. This is a required parameter.
register_db_server=<*ServerName*>	Name of the server in which the study is registered with Cognos.
register_db_user=<*UserName*>	Study database user registered with Cognos.
register_db_pass<*UserPassword*>	Password for the database user registered with Cognos.
remove=<*true*>	When specified, turns off reporting for the study and removes all reporting-related settings for the study. When you use the remove parameter, you must also specify the following: • study_name • register_db_server • register_db_user • register_db_pass

Example

Example command-line with a complete set of parameters to set up reporting:

```
pfcognosconfig "E:\scripts\pfconfigparams.txt"
```

pfrinit

Purpose

Performs the following tasks:

- Modifies the default Cognos Analytics capabilities to fit the Oracle InForm reporting environment.
- Creates new Cognos Analytics groups that match Oracle InForm reporting requirements.
- Sets Public folders permissions so that only Publishers can write to this public area. Maps study-specific reporting groups to the Cognos Analytics groups and roles.
- Creates study-specific data connection and set permissions so that it is restricted for the use of study members only.
- Copies the Oracle InForm Trial Management package present in the InForm folder and renames it as a study-specific package.
- Creates a study folder that contains all the standard folders and reports that point to the study-specific package. Relative paths within reports will be modified to reflect the new location.
- Validates all copied reports so that all successfully validated reports are syntactically correct and able to run against the study-specific packages.

Location

The Oracle InForm Application Server folder of the server where the Cognos Application Tier components are installed. For example, <*Installation_Directory*>\InForm\bin.

Usage

pfrinit [setupinform]

Option	Parameter
setupinform	When specified, configures the reporting environment without a study. When migrating the reporting environment to a new machine, run the command with this parameter before you import export packages.

Command line prompts

You are prompted for the following parameters:

- **sysadmin_namespace**—Oracle Directory Server admin namespace.
- **sysadmin_uid**—User name for the Oracle Directory Server admin namespace.
- **sysadmin_pass**—Password you chose when creating the crnsysadmin user.
- **publisher_namespace**—Custom Authentication Provider (CAP) namespace. Enter informcap.
- **publisher_uid**—Oracle InForm study user who is a member of the following Reporting groups:
  - Publishers.

  - Either Sponsor Users or Site Users.
- **publisher_pass**—Password of the Oracle InForm study user.
- **dispatcher_url**—Internal URI that the Oracle InForm server uses to communicate with the Cognos Analytics server.
- **trial_name**—Name of the Oracle InForm study.
- **reportdb_pass**—Study PID.
- **in_place_upgrade**—Y/N. Indicate if the PFRInit command is being run as part of an in-place upgrade (required for an in-place upgrade). For more information, see the *Upgrade and Migration Guide*.

For legacy purposes, you can also pass the parameters by using the **/accountparams:***"path_to_parameter_file"* command option.

When specified, this option includes the path to a text file that contains the values required to run the command. The format of the parameter file is parameter=value. There is a new line for each parameter, and there are no spaces on a line.

Note

The recommended Oracle InForm study user for running pfrinit is **pfreportinguser**. You can change the password for this user using the Oracle InForm user interface as with any other user. After you change the password, however, you must run the PFADMIN command, using this syntax:

PFADMIN SETSERVER PFREPORTINGUSERPW <*studyname***>**

When prompted, enter the pfreportinguser password.

This command sets a property used by Reporting when it needs the credentials of the **pfreportinguser**.

For more information, see pfadmin.

Example

pfrinit "E:\scripts\init.txt"

PostDeployWorkaround.cmd

Purpose

Applies a workaround after a study deployment. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

PostDeployWorkaround <*Study_Name*> <*TNS_Service_Name*> <*Deployment_ID*>

Option	Parameter
Study_Name	Name of the study requesting deployment.
TNS_Service_Name	Local Net Service Name for the remote database service.
Deployment_ID	Unique identifier for the deployment request.

> **Note:**
>
> Workarounds should be used as a last resort during automated deployments, in order to keep human intervention to a minimum.

PreDeployWorkaround.cmd

Purpose

Applies a workaround before a study deployment. If the operation is successful, the command returns 0. Otherwise, it returns 1 to signal the error.

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

PreDeployWorkaround <*Study_Name*> <*TNS_Service_Name*> <*Deployment_ID*>

Option	Parameter
Study_Name	Name of the study requesting deployment.
TNS_Service_Name	Local Net Service Name for the remote database service.
Deployment_ID	Unique identifier for the deployment request.

> **Note:**
>
> Workarounds should be used as a last resort during automated deployments, in order to keep human intervention to a minimum.

RequestTime.cmd

Purpose

Indicates if a future study deployment time conflicts with any conditions on the production environment. If the system is not available or if resource intensive tasks are scheduled on the production environment during the requested timeframe, the requested time is rejected (the command returns 1). Otherwise, it is accepted (the command returns 0).

Location

Deployment root folder, as defined in the DeployRoot registry value under HKEY_LOCAL_MACHINE\SOFTWARE\OracleHS\InForm. By default, it is the InFormDeploy folder on the drive where the InForm application is installed. For example: E:\InFormDeploy.

Usage

RequestTime <*Study_Name*> <*Requested_Time*> <*Study_Type*>

Option	Parameter
Study_Name	Name of the study to be deployed.
Requested_Time	Local time on the Oracle InForm server when the deployment is requested, in the format MM/DD/YYYY HH:MM. For example: 05/18/2017 15:30.
Study_Type	Type of the study to be deployed. Options are: • LIVE • UAT • TRAINING • QA • DEV

Note:

The RequestTime command helps planning deployments that do not conflict with scheduled maintenance windows or expected peak system usage periods. However, it cannot prevent conflicts caused by conditions that were unexpected or unscheduled at the time the request was made, such as emergency maintenance operations.

12

Troubleshooting

In this appendix:

- Install issues

Install issues

In this seection:

- XA Views: INVALID
- Database connectivity
- Password error on Oracle InForm service start up
- ORA-01792 error during reporting setup
- Could not register the COM object InFormRuleEngine

XA Views: INVALID

If you have tried the solution that is recommended in Oracle MTS configuration is invalid and still get this error, or if you run mtsora102 from the command line and get a warning, the xaview.sql file may not be installed.

> **Note:**
>
> This can happen for some Oracle client-only installations (multi-tier setup).

Possible solution:

1. Copy the xaview.sql file from another machine (running the same Oracle version) to your Oracle rdbms\admin directory.
2. Log in as a user with SYSDBA credentials on a machine with xaview.sql.
3. Run xaview.sql against your Oracle InForm core instance.
4. Run mtsora102 from the command line.

Database connectivity

If you get a warning about database connectivity, make sure that:

- The connect string value is correct.
- The pfdbadmin password is valid.

If you get a message that the pfdbadmin user does not exist, create the user by doing one of the following:

- Select the **Prep Oracle** checkbox in the Oracle InForm installation wizard.

- Run the **informprepora** command located in the InstallSupport folder of the Oracle InForm installation image.

Password error on Oracle InForm service start up

The Oracle InForm installation wizard cannot ensure that the password entered on the Account Configuration Window for the Local Machine User (pfUSR) meets the password requirements set for the machine. If you enter a password that does not conform to the Windows password requirements, an error will prevent the Oracle InForm service from starting.

1. To change the pfUser password enter the following command at a DOS prompt:

```
pfadmin install
```

2. When prompted for the pfUSR password, enter a password that meets the password requirements.
3. Run the following command to start the InForm service:

```
new start pfservice
```

Use the pfadmin view service command to verify that the Oracle InForm service has started.

ORA-01792 error during reporting setup

Possible cause

Your study design includes a large form that requires more than 1000 columns to be created in a table or view in the database.

Possible solution

Modify your study design to use forms with 20 or fewer items on each form. Limiting the size of your forms can also prevent downstream issues in Oracle InForm, RDEs, and other integrated applications.

Could not register the COM object InFormRuleEngine

When trying to deploy the study, if you run into this error open a command line, go into the **DesignerVersion** folder in OracleHS\InForm\Bin and run registerruleengine.bat to fix it.

13

Running the Cognos Customization wizards in silent mode

In this appendix:

- Run the Cognos Analytics Customization for Oracle InForm wizard in record mode
- Run the Cognos Analytics Customization for Oracle InForm wizard in silent mode
- Run the Cognos Analytics Gateway Customization for Oracle InForm wizard in record mode
- Run the Cognos Analytics Gateway Customization for Oracle InForm wizard in silent mode

Run the Cognos Analytics Customization for Oracle InForm wizard in record mode

1. Run the Cognos Analytics Customization for Oracle InForm wizard to install the customizations for the Cognos Content Manager Server or the Cognos Report Server.

   For more information, see Run the Cognos Analytics Customization for InForm wizard—Cognos Content Manager / Cognos Report Server.

2. Open a Command Prompt window, and use the following command to run the Cognos Analytics Customization for Oracle InForm wizard in record mode.

   This step records the installation options, and creates the setup.iss response file that you can use to run the wizard again in silent mode, on other machines

   ```
   Cognos_Analytics_Customization_for_InForm\setup.exe -r

   -f1<path_to_configuration_files>\Cognos_Analytics_Customization_for_InForm\
   setup.iss
   ```

Parameter	Description
-r	Runs the wizard in record mode. The options you select when the wizard runs are saved in the response file (setup.iss) identified by the -f1 parameter.
-f1	Identifies the location of the response file. There is no space between the -f1 flag and the response file location. For example: `-f1E:\Cognos_Analytics_Customization_for_InForm\setup.iss.`

Run the Cognos Analytics Customization for Oracle InForm wizard in silent mode

1. Extract the Cognos_Analytics_Customization_for_InForm archive from the product archive to a location that is accessible to the machines where you will run the wizard.
2. Populate the setup.iss file in the folder with the options you want to specify for the Cognos Analytics Customization for Oracle InForm wizard.

   You can edit the setup.iss files manually, or you can run the customization wizard in record mode. For more information, see Run the Cognos Analytics Customization for Oracle InForm wizard in record mode.
3. Open a Command Prompt window, and run the following command:

```
Cognos_Analytics_Customization_for_InForm\setup.exe -s

-f1<path_to_configuration_files>\Cognos_Analytics_Customization_for_InForm\
setup.iss

-f2<path_to_configuration_files>\Cognos_Analytics_Customization_for_InForm\
setup.log
```

Parameter	Description
-s	Runs the wizard in silent mode.
-f1	Identifies the location of the response file that contains the options for the wizard. There is no space between the -f1 flag and the response file location. For example: `-f1E:\Cognos_Analytics_Customization_for_InForm\setup.iss`
-f2	Identifies the location of the log file for the wizard. There is no space between the -f1 flag and the log file location. For example: `-f1E:\Cognos_Analytics_Customization_for_InForm\setup.log`

Run the Cognos Analytics Gateway Customization for Oracle InForm wizard in record mode

1. Run the Cognos Analytics Gateway Customization for Oracle InForm wizard to install the customizations for the Cognos Gateway Server.

   For more information, see Step 1: Run the Cognos Analytics Gateway Customization for Oracle InForm wizard on the Cognos Gateway Server.

2. Open a Command Prompt window, and use the following command to run the Cognos Analytics Gateway Customization for Oracle InForm wizard in record mode.

   This step records the installation options, and creates the setup.iss response file that you can use to run the wizard again in silent mode, on other machines

   ```
   Cognos_Analytics_Gateway_Customization_for_InForm\setup.exe -r
   -f1<path_to_configuration_files>\Cognos_Analytics_Gateway_Customization_for
   _InForm\setup.iss
   ```

Parameter	Description
-r	Runs the wizard in record mode. The options you select when the wizard runs are saved in the response file (setup.iss) identified by the -f1 parameter.
-f1	Identifies the location of the response file. There is no space between the -f1 flag and the response file location. For example: `-f1E:\Cognos_Analytics_Customization_for_InForm\setup.iss.`

Run the Cognos Analytics Gateway Customization for Oracle InForm wizard in silent mode

1. Extract the Cognos Analytics Gateway Customization for Oracle InForm archive from the product archive to a location that is accessible to the machine where you will run the wizard.
2. Populate the setup.iss file in the folder with the options you want to specify for the Cognos Analytics Gateway Customization for Oracle InForm wizard.

   You can edit the setup.iss file manually, or you can run the customization wizard in record mode. For more information, see Run the Cognos Analytics Gateway Customization for Oracle InForm wizard in record mode.
3. Open a Command Prompt window, and run the following command:

   ```
   Cognos_Analytics_Gateway_Customization_for_InForm\setup.exe -s

   -f1<path_to_configuration_files>Cognos_Analytics_Gateway_Customization_for_
   InForm\setup.iss

   -f2<path_to_configuration_files>\Cognos_Analytics_Gateway_Customization_for
   _InForm\setup.log
   ```

Parameter	Description
-s	Runs the wizard in silent mode.

Parameter	Description
-f1	Identifies the location of the response file that contains the options for the wizard. There is no space between the -f1 flag and the response file location. For example: `-f1E:\Cognos_Analytics_Customization_for_InForm\setup.iss`
-f2	Identifies the location of the log file for the wizard. There is no space between the -f1 flag and the log file location. For example: `-f1E:\Cognos_Analytics_Customization_for_InForm\setup.log`

14

Typical rights for CRA and CRC rights groups

In this appendix:

- CRA rights groups
- CRC rights groups

CRA rights groups

These are the typical rights associated with the CRA rights group:

- Print
- Monitor
- Canned Reports
- View CRF
- View Signature History for CRF
- View Signature History for CRB
- Data Export Listings
- Freeze a CRF
- Unfreeze a CRF
- Mark and Unmark a CRF as SVed
- Change Site SV Settings
- Freeze a CRB
- Unfreeze a CRB
- Change Query State from Candidate to Open
- Change Query State from Candidate to Deleted
- Change Query State from Answered to Closed
- Change Query State from Open to Closed
- Change Query State from Reissued Candidate to Closed
- Enter Query in Candidate State
- Enter Query in Open State
- Re-issue Query in Candidate State
- Re-issue Query in Open State
- Reordering of Patients

CRC rights groups

These are the typical rights associated with the CRC rights group:

- Print
- Enroll Patients
- View CRF
- View Signature History for CRF
- View Signature History for CRB
- Enter Data into a CRF
- Edit Data on a CRF
- Enter Comments into a CRF
- Mark a CRF as Ready for SV
- Mark and unmark a CRB as Ready for SV
- Answer Query
- Reordering of Patients