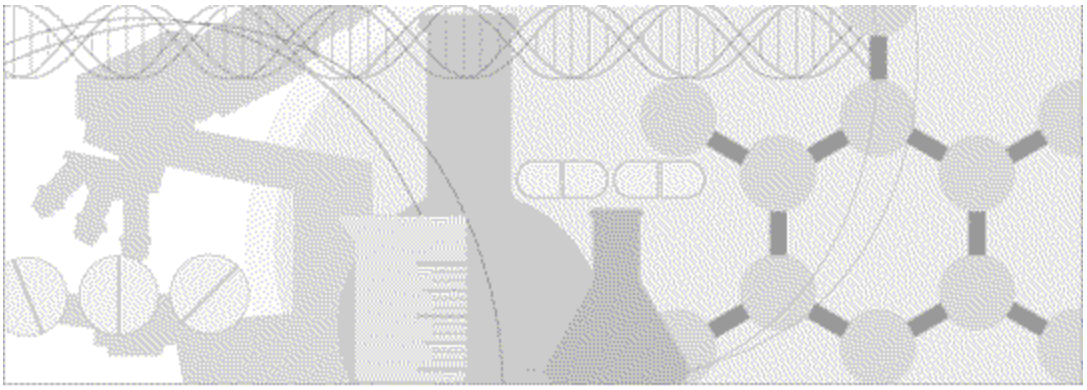
Installation Guide

Oracle® Health Sciences InForm 5.5.3



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About this guide

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Overview of this guide

The *Installation Guide* describes how to install the software and configure the environment for the InForm application and Cognos software.

After installing the software and configuring the environment, use the *Study and Reporting Setup Guide* for information about how to set up a study and the Reporting and Analysis module.

Audience

This guide is for database and system administrators who are responsible for installing and configuring the InForm software and the Cognos 10 BI Reporting software.

Documentation

The product documentation is available from the following locations:

- **Oracle Software Delivery Cloud** (https://edelivery.oracle.com)—The complete documentation set.
- **My Oracle Support** (https://support.oracle.com)—*Release Notes* and *Known Issues*.
- **Oracle Technology Network** (http://www.oracle.com/technetwork/documentation)—The most current documentation set, excluding the *Release Notes* and *Known Issues*.

All documents may not be updated for every InForm release. Therefore, the version numbers for the documents in a release may differ.

InForm documentation	
Document	Description
Release Notes	The *Release Notes* document describes enhancements introduced and problems fixed in the current release, upgrade considerations, release history, and other late-breaking information.
Known Issues	The *Known Issues* document provides detailed information about the known issues in this release, along with workarounds, if available.
Secure Configuration Guide	The *Secure Configuration Guide* provides an overview of the security features provided with the Oracle® Health Sciences InForm application, including details about the general principles of application security, and how to install, configure, and use the InForm application securely.
Upgrade and Migration Guide	The *Upgrade and Migration Guide* provides instructions for upgrading and migrating the InForm software and InForm Portal software to the current InForm release, and for upgrading the Cognos software for use with the Reporting and Analysis module.
Installation Guide	The *Installation Guide* describes how to install the software and configure the environment for the InForm application and Cognos software.
Study and Reporting Setup Guide	The *Study and Reporting Setup Guide* describes how to perform the tasks that are required to set up an InForm study and configure the Reporting and Analysis module for the study.
User Guide	The *User Guide* provides an overview of the InForm application including details on multilingual studies, how to navigate through the user interface, and how to use the application to accomplish typical tasks you perform while running a clinical study.
Reporting and Analysis Guide	The *Reporting and Analysis Guide* provides an overview of the Reporting and Analysis module. It includes a brief overview of the Reporting and Analysis interface, illustrates how to access the Ad Hoc Reporting feature, and describes the study management and clinical data packages available for Reporting and Analysis. It also provides detailed descriptions of each standard report that is included with your installation.

InForm documentation	
Document	Description
Reporting Database Schema Guide	The *Reporting Database Schema Guide* describes the Reporting and Analysis database schema.
Portal Administration Guide	The *Portal Administration Guide* provides step-by-step instructions for setting up the InForm Portal software, and configuring and managing the InForm Portal application.
Utilities Guide	The *Utilities Guide* provides information about and step-by-step instructions for using the following utilities: • PFConsole utility • MedML Installer utility • InForm Data Import utility • InForm Data Export utility • InForm Performance Monitor utility • InForm Report Folder Maintenance utility This guide also provides reference information for the MedML elements and scripting objects that are used to import and export data to and from the InForm application, as well as sample data import XML.
MedML Installer utility online Help	The MedML Installer utility online Help provides information about, and step-by-step instructions for using, the MedML Installer utility, which is used to load XML that defines study components into the InForm database. This guide also provides reference information for the MedML elements and scripting objects that are used to import and export data to and from the InForm application, as well as sample data import XML. This document is also available from the user interface.
InForm Data Export utility online Help	The InForm Data Export utility online Help provides information about and step-by-step instructions for using the InForm Data Export utility, which is used to export data from the InForm application to the following output formats: • Customer-defined database (CDD) • Name value pairs This document is also available from the user interface.
InForm Data Import utility online Help	The InForm Data Import utility online Help provides information about and step-by-step instructions for using the InForm Data Import utility, which is used to import data into the InForm application. This document is also available from the user interface.
Third Party Licenses and Notices	The *Third Party Licenses and Notices* document includes third party technology that may be included in or distributed with this product.

Documentation accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

If you need assistance

Oracle customers have access to support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info, or if you are hearing impaired, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs.

Finding InForm information and patches on My Oracle Support

The latest information about the InForm application is on the Oracle Support self-service website, My Oracle Support. Before you install and use the InForm application, check My Oracle Support for the latest information, including *Release Notes* and *Known Issues*, alerts, white papers, bulletins, and patches.

Creating a My Oracle Support account

You must register at My Oracle Support to obtain a user name and password before you can enter the site.

1 Open a browser to https://support.oracle.com.

2 Click the **Register** link.

3 Follow the instructions on the registration page.

Finding information and articles

1 Sign in to My Oracle Support at https://support.oracle.com.

2 If you know the ID number of the article you need, enter the number in the text box at the top right of any page, and then click the magnifying glass icon or press **Enter**.

3 To search the knowledge base, click the **Knowledge** tab, and then use the options on the page to search by:

- Product name or family.
- Keywords or exact terms.

Finding patches

You can search for patches by patch ID or number, product, or family.

1 Sign in to My Oracle Support at https://support.oracle.com.

2 Click the **Patches & Updates** tab.

3 Enter your search criteria and click **Search**.

4 Click the patch ID number.

The system displays details about the patch. You can view the Read Me file before downloading the patch.

5 Click **Download**, and then follow the instructions on the screen to download, save, and install the patch files.

Finding Oracle documentation

The Oracle website contains links to Oracle user and reference documentation. You can view or download a single document or an entire product library.

Finding Oracle Health Sciences documentation

For Oracle Health Sciences applications, go to the Oracle Health Sciences Documentation page at http://www.oracle.com/technetwork/documentation/hsgbu-clinical-407519.html.

Note: Always check the Oracle Health Sciences Documentation page to ensure you have the most up-to-date documentation.

Finding other Oracle documentation

1 Do one of the following:

- Go to http://www.oracle.com/technology/documentation/index.html.
- Go to http://www.oracle.com, point to the **Support** tab, and then click **Product Documentation**.

2 Scroll to the product you need, and click the link.

Finding prerequisite software for Oracle Health Sciences applications

Prerequisite software for Oracle Health Sciences applications is available from the following locations:

- Download the latest major or minor release from the Oracle Software Delivery Cloud (https://edelivery.oracle.com/).

  For information on the credentials that are required for authorized downloads, click **FAQs** on the main page of the Oracle Software Delivery Cloud portal.

- Download subsequent patch sets and patches from My Oracle Support (https://support.oracle.com).

  To find patch sets or patches, select the **Patches & Updates** tab.

If a previous version of prerequisite software is no longer available on the Oracle Software Delivery Cloud, log a software media request Service Request (SR). Previous versions of prerequisite software are archived and can usually be downloaded. After you open an SR, you can check its status:

- US customers: Call 1-800-223-1711.
- Outside the US: Check www.oracle.com/us/support/contact/index.html for your local Oracle Support phone number.

For more information on logging a media request SR, go to My Oracle Support for Document 1071023.1: Requesting Physical Shipment or Download URL for Software Media (https://support.oracle.com/epmos/faces/DocumentDisplay?id=1071023.1).

CHAPTER 1

InForm overview

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About the InForm software

The InForm software is a data collection and study management application that uses a secure web browser to provide access to clinical study data and management of the clinical study process. Your user profile and rights determine which InForm features you can access.

Use the InForm application to:

- Screen and enroll subjects.
- Enter and manage form, comment, and visit data.
- Issue, answer, and close queries.
- Source verify forms.
- Freeze and lock forms.
- Sign forms and case report books.
- View study specific documentation.
- Perform and view subject transfers.
- Perform administrative tasks.

About the Data Viewer

The Data Viewer is a standard feature in the InForm application that provides Clinical Data Managers (CDMs) and other InForm users with a real-time overview of clinical study data across visits and sites. You can use the Data Viewer to facilitate the cleaning of data, to look for patterns in data, and to identify items that may be anomalies.

Use the Data Viewer to:

- Compare items on the same type of forms.
- Compare two forms side-by-side.
- Perform InForm actions on one or more forms, such as freezing, locking, and source verifying.
- View and issue queries on clinical data.
- Review form and item comments.
- Export data and comments.
- Use review states for custom review workflows.

The Data Viewer is installed as part of the InForm software installation. To use the features in the Data Viewer, you must have access rights to the Data Viewer as well as rights to perform certain tasks. For details on the XML associated with the Data Viewer rights, see the *Utilities Guide*.

About the Reporting and Analysis module

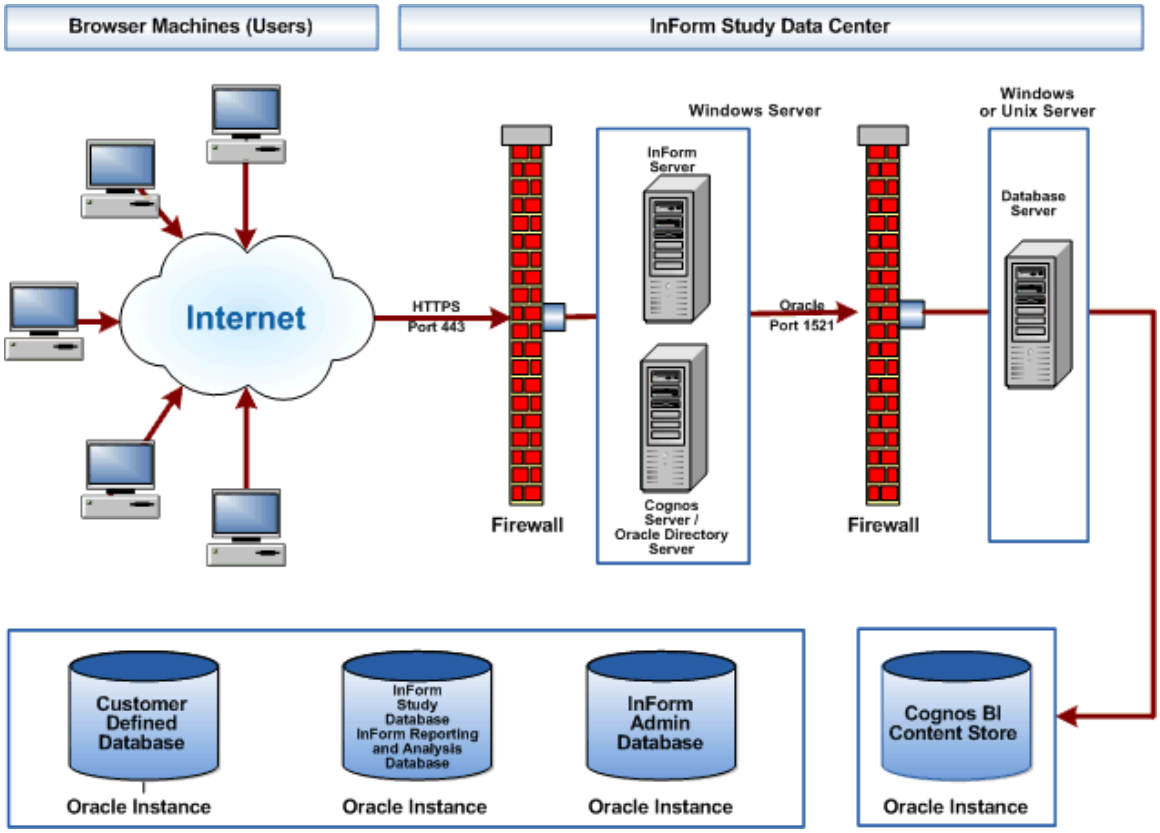
The Reporting and Analysis module is an optional part of the InForm application that provides a library of configurable reports, predefined reports, and ad hoc reporting and charting tools. Both clinical and operational data are available in real time. For more information, see the *Reporting and Analysis Guide*.

The Reporting and Analysis module is based on the Cognos 10 BI Reporting applications, which have been customized and integrated into the InForm application by Oracle, and embedded in the InForm user interface.

Note: You can install the InForm software without the Reporting and Analysis module if you want to use the data collection features of the InForm application without the reporting features.

InForm system configuration

The InForm system configuration consists of the browser computers, the application server, and the database server.



InForm 5.5 product image

The InForm product image includes folders that contain:

- Native installers
- Customization wizards

This native installer folder contains setup files that install the base products necessary for the InForm software and the InForm Portal software. The customization wizard folders contain setup files you use to apply necessary customizations for an installation of the Reporting and Analysis module. Use these folders only if you are installing the Reporting and Analysis module.

Folder	Description
InForm	Contains the InForm core and the InForm Portal installation software.
CRNConfig	Contains files used to run the Cognos 10 BI Reporting Customization for InForm wizard.
CRNGatewayConfig	Contains files used to run the Cognos 10 BI Reporting Gateway Customization for InForm wizard.

Available online Help

The InForm application provides extensive online Help from the user interface to give you easy access to procedural, conceptual, and detailed task-related information that you need while working with the application.

Note: The popup blocker in your browser may prevent the Help pages from opening. If this occurs, either turn off the popup blocker or press the Ctrl key before you click the Help icon.

Online Help	Description	How to access
InForm User Guide	The *User Guide* provides an overview of the InForm application including details on multilingual studies, how to navigate through the user interface, and how to use the application to accomplish typical tasks you perform while running a clinical study. This guide appears in a separate browser window that you can resize and move for easy viewing.	• In the upper-right corner of the main InForm application window, click the **Help** icon ( ) **> InForm User Guide**.
Cognos 10 BI Reporting documentation	The complete Cognos 10 BI Reporting documentation set, created by Cognos. This documentation is available only if using the Reporting and Analysis module. These guides appear in separate browser windows that you can resize and move for easy viewing.	• In the upper-right corner of the main InForm application window, click the **Help** icon ( ) **> Reporting User Guide**. An HTML page appears with links to the complete Cognos 10 BI Reporting documentation set.
Descriptions of InForm standard reports	Detailed descriptions for the fields in the report. This information Is available from within the Reporting and Analysis module, after you output any InForm standard report.	• After you output any InForm standard report in HTML format, click the **Report Help** link. An HTML page appears with detailed page-level Help for the report.
Cognos documentation for Query Studio	The Cognos Query Studio User Guide, created by Cognos. Query Studio is the Cognos tool that provides Ad Hoc Reporting capability. This guide is available from within the reporting user interface only if using the Reporting and Analysis module. This guide appears in a separate browser window that you can resize and move for easy viewing.	• In the Ad Hoc Reporting workspace, select **Ad Hoc Tools Help**.

Online Help	Description	How to access
Hover Help	Provides a brief description of the selected item, button, or icon.	• Hold your mouse pointer over the item and the hover Help text appears in a popup window. When you move your mouse pointer off the item, the hover Help disappears.

CHAPTER 2

Checklists for software installation

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Summary of installation tasks

The following table summarizes the steps for installing and configuring the software required for the InForm application and Cognos Reporting environment. All steps are performed one time to set up the environment and are required unless marked optional.

Note: If your installation includes only the InForm application without Cognos Reporting, only steps 1, 2, and 6 apply.

Step		Where to get more information
1	Create and configure Oracle database instances.	*Configuring Oracle* (on page 33).
2	Install the InForm core software.	*Installing the InForm core software* (on page 51).
3	Install the Cognos 10 BI Reporting core software.	*Installing the Cognos 10 BI Reporting core software* (on page 75).
4	Run a set of customization wizards to configure Cognos 10 BI for the Reporting and Analysis module.	*Configuring the Cognos 10 BI software for the InForm environment* (on page 89).
5	Create and configure the study and reporting databases.	*Configuring the InForm software for the Cognos Reporting environment* (on page 113).
6	Update browser settings on client computers.	*Configuring client computers* (on page 127).

Checklist—Installing and configuring the Oracle database

☑		Workflow step	Where to get more information
❑	1	Obtain Oracle database software and patches.	*Release Notes*.
❑	2	Install the Oracle database software on each server that hosts the InForm, Cognos 10 BI, and Reporting and Analysis database instances.	Oracle database documentation.
❑	3	Create the Oracle database instances for the InForm software, the Cognos 10 BI software, and Reporting and Analysis.	• *Create Oracle Database instances* (on page 38). • *Creating a database schema for the Cognos Authentication Provider (CAP)* (on page 43). • *Configuring the database for the Cognos Authentication Provider* (on page 43)
❑	4	Create the InForm database users.	*Required InForm database accounts* (on page 39).
❑	5	Create the InForm tablespaces.	• *Distributed InForm study tablespaces* (on page 41). • *Multiple study tablespaces* (on page 40) • *Creating the INFORM_LOB tablespace* (on page 42)
❑	6	Configure and validate a database connection.	• *Configuring a database connection* (on page 48). • *Validating the database connection* (on page 48).
❑	7	Create the Cognos 10 BI database and accounts.	• *Creating a database instance for the Cognos 10 BI content store* (on page 45) • *Configuring the Cognos 10 BI content store database* (on page 45)
❑	8	Set up initialization parameters.	• *Initialization parameters for database instances* (on page 35). • *Study database parameters—Different database instances* (on page 46) • *Archive log mode in a multiple database environment* (on page 47)

☑	Workflow step		Where to get more information
❑	9	Configure the Oracle database client.	• *Configuring the Oracle client* (on page 48). • *Configuring a database connection* (on page 48) • *Validating the database connection* (on page 48)
❑	10	Set up Oracle XA transaction support.	*Setting up Oracle XA Transaction Support* (on page 49).

Checklist—Installing the InForm software

☑		Workflow step	Where to get more information
❑	1	Verify that all hardware and software requirements are met.	*Release Notes*.
❑	2	Install and configure the Oracle database software.	***Configuring the Oracle database*** (on page 33)
❑	3	Run the InForm installation wizard.	***Installing the InForm software*** (on page 53)
❑	4	Optionally, change the pfdbadmin password.	***Changing the pfdbadmin password*** (on page 59)
❑	5	Optionally, enable a secure socket layer.	***Enabling Secure Sockets Layer (SSL)*** (on page 60)
❑	6	Update the DomainSuffix entry for the AuthenticationFilter registry key	***Updating the DomainSuffix entry for the AuthenticationFilter registry key*** (on page 64)
❑	7	Update the ExternalLoginURL and ExternalLoginFailureURL entries on the InForm server	***Updating the ExternalLoginURL and ExternalLoginFailureURL entries on the InForm server*** (on page 64)
❑	8	Qualify the installation.	***Qualifying the installation*** (on page 66)

Worksheet—Database Configuration page of InForm installation wizard

The Database Configuration page of the installation wizard for the InForm core software requires the following values. You can use this worksheet when preparing to run the wizard.

Field in installation wizard	Description	Value to input
Database Connection String	String that the InForm server uses to connect to the Oracle instance for the study.	
Admin Database Username	User name that is required to access the Admin database. The default is **informadmin**.	
Admin Database Password	Password that is required to access the Admin database. The password is not case-sensitive. **Note:** If users can access your production servers using SQL*Plus, Oracle recommends that you change the default Admin Database Password during installation for security. If users cannot access production servers using SQL*Plus, normal firewall security should be sufficient. Unlike the InForm system user name and InForm system password, the Admin database user name and Admin database password can be changed only during the installation process.	
InForm System Username	User name for the pfdbadmin. The default is **pfdbadmin**. This account is used to create study database users in DBSETUP. If this is a new InForm installation or if you change the user name from the default during the installation, select the **Prep Oracle** checkbox. This instructs the InForm software installation to create the InForm account using the user name and password you specify.	
InForm System Password	Password for the pfdbadmin. The default is **pfdbadmin**. The password is not case-sensitive. **Note:** Oracle recommends that you change the InForm system password after installing the InForm software. For more information, see *Changing the pfdbadmin password* (on page 59).	
Oracle SYS Password	Password of the Oracle SYS account. This value is used only if you select the **Prep Oracle** checkbox to create the pfdbadmin account.	

Field in installation wizard	Description	Value to input
Install Admin DB	If selected, creates the: • informadmin user, using the Admin Database Username and Admin Database Password. • InForm Admin database for non-clinical data, such as a list of studies, with study database usernames and passwords.	
Prep Oracle	• If selected: ▪ Runs the **informprepora.vbs** script, that creates the study database user, using the InForm System Username and InForm System Password. ▪ Runs the **mtsora102.vbs** script, that sets up Oracle XA Transaction Support and sets the MTS Timeout to a minimum of 300 seconds. • 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.	

Checklist—Installing the Cognos 10 BI core software

☑	Workflow step		Where to get more information
❑	1	Verify that all hardware and software requirements are met.	*Release Notes*.
❑	2	Install and configure the Oracle database software.	***Configuring the Oracle database*** (on page 33).
❑	3	Install Oracle Directory Server.	***Install the Oracle Directory Server*** (on page 77).
❑	4	Install the Cognos 10 BI core software.	***Installing the Cognos 10 BI software*** (on page 79).
❑	5	Installing the Cognos 10 BI interim fix updates.	***Installing the Cognos 10 BI interim fix updates*** (on page 81).
❑	6	Upgrade to Cognos 10 BI Fix Pack 3	***Upgrading Cognos 10 BI software to Fix Pack*** (on page 83)3.
❑	7	Copy the Oracle JDBC driver to the server where the Cognos 10 BI Reporting Content Manager is installed.	***Setting up the Oracle JDBC driver*** (on page 84).
❑	8	Optionally, customize Cognos 10 BI email settings.	***Customizing Cognos 10 BI email settings*** (on page 86).
❑	9	Configure IIS 7.0 for Windows 2008.	***Creating, setting up and installing a key certificate for SSL in IIS 7.0*** (on page 61).
❑	10	Optionally, configure Cognos 10 BI to use SSL.	***Configuring for SSL in the Cognos Configuration utility*** (on page 99).
❑	11	Optionally, configure the Cognos gateway server to use SSL	***Configuring the Internet Information Services (IIS) for Windows on the Cognos Gateway server*** (on page 87).
❑	12	Start the Cognos 10 BI servers.	***Starting the Cognos 10 BI servers*** (on page 100).

Worksheet—Oracle Directory Server installation wizard

The installation wizard for installing Oracle Directory Server requires the following values. You can use this worksheet when preparing to run the wizard.

Field in installation wizard	Description	Value to input
Fully Qualified Computer Name		
Fully Qualified Computer Name	Fully Qualified Computer Name of the computer you are going to use for LDAP.	
Select Installation Directory		
Directory to install Directory Server components	Path and directory name for the installation of the Directory Server components.	
Directory Server Settings page		
Server Identifier	Physical name of the LDAP server.	
Server Port	Use the default port number **389** that is listed. **Note:** Using a specific port number could result in port conflicts with other applications. Using the default number eliminates port conflicts.	
Suffix	Network domain (for example, if the domain is north.pf.com, enter dc=north,dc=pf,dc=com). **Note:** Do not enter a space after the comma between the parts of the domain.	
Configuration Directory Server Administrator page		
Administrator ID	Name for registering the server with the Configuration Directory Server.	
Password	Password for the user name entered in the Administrator ID field.	
Password (again)	Confirmation of the password.	
Directory Manager Settings page		
Directory Manager DN	Distinguished Name for the Directory Manager user, in the format cn=<*user name*>.	
Password	Password of the admin user specified in the Directory Manager DN field.	
Password (again)	Confirmation of the password.	
Administration Server Port Selection page		
Administration Port	Port number for the Administration Server (keep the default).	

Checklist—Customizing Cognos 10 BI for Reporting and Analysis

Run the two Cognos 10 BI for InForm customization wizards to specify communication information needed by the Cognos 10 BI software and to load files needed by the Reporting and Analysis module.

☑		Workflow step	Where to get more information
❑	1	Run the Cognos 10 BI Customization for InForm (CRNConfig\setup.exe) wizard.	*Running the CRNConfig\setup.exe wizard* (on page 91)
❑	2	Optionally, change or create a new MotioCAP_informcap.properties file.	*Changing or creating a new MotioCAP_informcap.properties file* (on page 95)
❑	3	Run the Cognos 10 BI Gateway Customization for InForm (CRNGatewayConfig\setup.exe) wizard.	*Running the CRNGatewayConfig\setup.exe wizard* (on page 97)
❑	4	Configuring for SSL in the Cognos Configuration utility	*Configuring for SSL in the Cognos Configuration utility* (on page 99)
❑	5	Start the Cognos 10 BI servers.	*Starting the Cognos 10 BI servers* (on page 100)
❑	6	Configure the CSV settings for reports.	*Configuring settings for Comma Separated Values (CSV) report output* (on page 103)
❑	7	Update registry settings for the Cognos 10 BI software.	• *Updating the ExternalLoginURL and ExternalLoginFailureURL registry key entries on the Cognos 10 BI servers* (on page 105) • *Updating the AuthenticationFilter DomainSuffix registry key on the Cognos 10 BI server* (on page 106)
❑	8	Configure the Cognos 10 BI Gateway server to run the Cognos Application Firewall	*Configuring the Cognos 10 BI Gateway server to run the Cognos Application Firewall* (on page 109)
❑	9	Enable communication among distributed Cognos 10 BI components.	*Enabling communication among distributed Cognos 10 BI software components* (on page 108)
❑	10	Create the PFWD namespace and crnsysadmin user.	• *Create the PFWD organizational unit (OU) and crnsysadmin user on the Oracle Directory Server* (on page 77). • *Creating PFWD and crnsysadmin on the Cognos 10 BI server* (on page 110)

Checklists—Configuring the study and reporting schemas

The procedures for configuring the study and reporting schemas vary according to the way your environment is set up:

- Study and reporting schemas installed in the same database instance

  For the default configuration, Oracle recommends installing the InForm software and the Reporting and Analysis module in the same database instance, and installing in different database instances only in certain cases. For more information, see *Options for distributing software components* (on page 26).

- Study and reporting schemas installed in different database instances.

Note: Study and reporting schemas are set up by default when they are installed in the same database instance.

Reporting schema—Study and reporting in different database instances

Perform these steps in the database instance for the reporting schema in a production environment where the study and reporting schemas are in different database instances.

☑		Workflow step	Where to get more information
❑	1	Configure reporting database parameters.	*Required reporting database parameters—Different database instances* (on page 121).
❑	2	Create reporting tablespaces.	• *Required reporting tablespace—Different database instances* (on page 123). • *Optional reporting tablespace—Different database instances* (on page 123).
❑	3	Create the rptinstall user for reports.	*rptinstall user for reports—Different database instances* (on page 124).
❑	4	Set up communication between the study and reporting databases.	*Communication between the study and reporting databases—Different database instances* (on page 125).

Study schema—Study and reporting in different database instances

Perform these steps in the database instance for the study schema in a production environment where the study and reporting schemas are in different database instances.

☑		Workflow step	Where to get more information
❑	1	Configure additional database parameter settings.	*Study database parameters—Different database instances* (on page 115).
❑	2	Add tablespaces to the study database.	• *Required study tablespace—Different database instances* (on page 116). • *Optional study tablespace—Different database instances* (on page 117).
❑	3	Create the rptinstall user for studies.	*rptinstall user for studies—Different database instances* (on page 118).
❑	4	Verify archivelog mode is set in the study database.	*Archivelog mode verification in the study database—Different database instances* (on page 119).
❑	5	Configure reporting variables.	*Reporting variable configuration—Different database instances* (on page 119).

Checklists—Configuring client computers

Microsoft Internet Explorer

You can perform the following steps in any order. All steps are recommended but optional except for the following steps, which are required:

- Configuring pop-up blocking.
- Modifying security settings.

☑	Workflow step		Where to get more information
❑	1	Specify the preferred browser language.	*Specifying the preferred browser language* (on page 128).
❑	2	Enable prompting for downloads.	*Enabling prompting for downloads* (on page 128).
❑	3	Configure pop-up blocking. REQUIRED.	*Configuring pop-up blocking* (on page 129).
❑	4	Prevent automatic password completion.	*Preventing automatic password completion* (on page 129).
❑	5	Specify whether to save encrypted and temp files.	*Specifying whether to save encrypted and temp files* (on page 129).
❑	6	Optimize performance.	*Optimizing performance* (on page 130).
❑	7	Setting HTTP and SSL option for performance.	*Setting HTTP and SSL options for performance* (on page 130).
❑	8	Print background graphics.	*Printing background graphics* (on page 130).
❑	9	Modify security settings. REQUIRED.	*Modifying security settings* (on page 131).
❑	10	Set up tabbed browsing.	*Setting up tabbed browsing for Internet Explorer 7.0* (on page 131).

Apple Safari

You can perform the following steps in any order. All steps are recommended but optional except for the following steps, which are required:

- Configuring pop-up blocking.
- Modifying security settings.

☑		Workflow step	Where to get more information
❑	1	Specify the preferred browser language.	*Specifying the preferred browser language* (on page 133).
❑	2	Configure pop-up blocking REQUIRED.	*Configuring pop-up blocking* (on page 133).
❑	3	Prevent automatic password completion.	*Preventing automatic password completion* (on page 133).
❑	4	Modify security settings. REQUIRED.	*Modifying security settings* (on page 133).

Firefox 3.5

You can perform the following steps in any order. All steps are recommended but optional except for the following steps, which are required:

- Configuring pop-up blocking.
- Modifying security settings.

☑		Workflow step	Where to get more information
❑	1	Specify the preferred browser language.	*Specifying the preferred browser language* (on page 134)
❑	2	Configure pop-up blocking. REQUIRED.	*Configuring pop-up blocking* (on page 134)
❑	3	Prevent stored password use.	*Preventing stored password use* (on page 135)
❑	4	Setting the SSL option for performance.	*Setting the SSL option for performance* (on page 135)
❑	5	Modify security settings. REQUIRED.	*Modifying security settings* (on page 135)

CHAPTER 3

InForm software components

In this chapter

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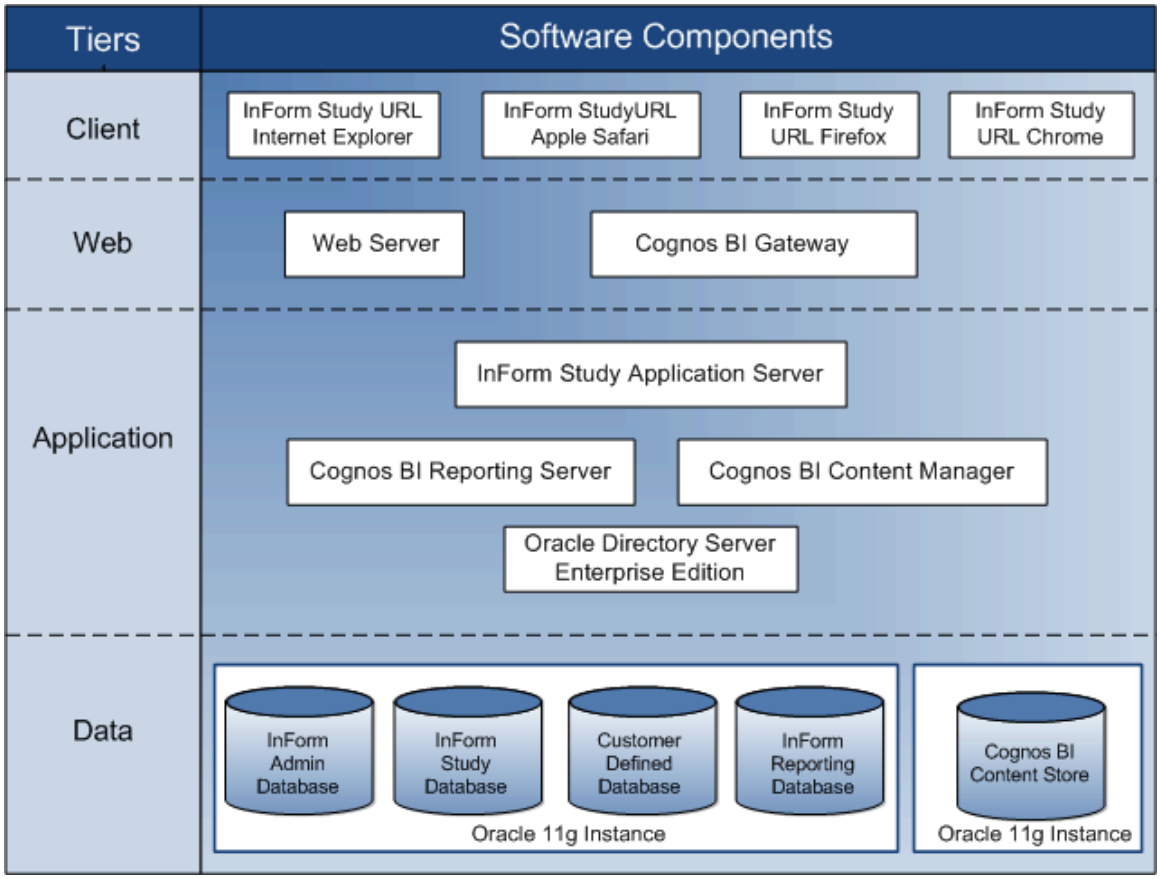
Overview of the InForm system architecture

The 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. **Notes:** • You cannot use the Apple Safari browser with Cognos Reporting. • You might be able to use the Cognos Reporting features with version 8.0 of Microsoft Internet Explorer, but that version is not officially supported either by Oracle or by Cognos.
Web	Web server and gateway software (MS-IIS)	Services requests to and from the web browser.
	Cognos 10 BI Gateway services	Provides secure access to the Cognos 10 BI Reporting (Cognos 10 BI) Server.

Tier	Software component hosted on the tier	Description
Application	InForm Service	Handles study-related requests for operating system services. There is one InForm Service per physical server machine.
	InForm study application server	Logical server that acts as a transaction manager for InForm studies under the InForm Service. The InForm Server handles caching and Microsoft Transaction Server (MTS) packages. Each study is associated with an InForm study application server.
	Cognos 10 BI Service	Handles reporting-related requests for operating system services. There is one Cognos 10 BI Service per physical server machine.
	Cognos 10 BI Content Manager	Logical server that acts as a transaction manager for the Reporting and Analysis module under the Cognos 10 BI Service. There is one Cognos 10 BI Server per physical server machine.
	Oracle Directory Server	Provides secure access to the InForm Reporting database.
Data	Oracle database instances for:	
	InForm study database	Stores the study components and the clinical data. Studies typically share an instance of Oracle with the InForm Admin database.
	InForm Admin database	Used by the InForm Service to manage all the studies on a physical machine. There is one InForm Admin database per InForm Service.
	InForm Reporting database	Stores views for Cognos Reporting through the Reporting and Analysis module. The InForm Reporting database can share an instance of Oracle with the InForm Admin and study databases or can reside in a separate Oracle instance. In an installation in which Cognos Reporting is enabled, each InForm study database has a corresponding InForm Reporting database.
	Cognos 10 BI Content Store	Stores user-created reporting objects such as folders, saved reports, and saved views. The Content Store usually occurs in a separate Oracle instance.

Options for distributing software components

Single server

In a single-server deployment, the InForm Server, the Cognos 10 BI Server, and all the study and reporting databases are on a single server machine that conforms to the InForm hardware and software requirements.

Single database instance for InForm and Cognos reporting software

For the default configuration, Oracle recommends installing the InForm software and the Reporting and Analysis module in the same database instance, and installing in different database instances only in certain cases.

- You can install in the same database instance if your study has up to 70 concurrent users and 8 concurrent reporting connections. The 8 reporting connections can be any combination of running an ad hoc query, a standard or custom report, or a report job.
- If your study requires more than 70 concurrent users and 8 concurrent reporting connections, installing in the same database instance may still be acceptable. However, you may want to consider installing the InForm software and the Reporting and Analysis module in different database instances.
- If your study requires 16 or more concurrent reporting connections, Oracle recommends installing in different database instances.

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

- Only one reporting environment is allowed per study schema.
- A single database can hold multiple reporting schemas.
- The InForm study and reporting database is not required to run in archive log mode.

Multiple servers

In a multi-server deployment, the InForm Server, the Cognos 10 BI Reporting Server, and the study and reporting databases are on at least three separate server machines that conform to InForm hardware and software requirements. The following example shows a physical representation of several server machines configured as follows:

- One Cognos Gateway server machine.
- One Cognos 10 BI server machine.
- One InForm server machine.
- One Oracle Directory Server machine.
- Three dedicated Oracle database server machines:
  - Customer-defined database (CDD), InForm Study, and InForm Admin.
  - InForm Reporting.
  - Cognos 10 BI Content Store.

Note: The InForm application server(s) and the Cognos 10 BI application server(s) must be in the same domain.

Separate database instances for InForm and Cognos reporting software

If your study requires 16 or more concurrent reporting connections, you should install the InForm and Cognos reporting software in separate database instances for performance reasons. You could use separate database instances for each of the following:

- Each InForm server, which contains one InForm Admin schema and multiple InForm study schemas.
- InForm Reporting schema.
- Cognos 10 BI Content Store schema.
- PFCap Admin Schema

Observe the following architecture rules:

- You must install the Reporting and Analysis environment (InForm Reporting database) in a different database instance than the instance for the study.
- The InForm application server(s) and the Cognos 10 BI application server(s) must be in the same domain.
- The Oracle user name for the reporting schema in the reporting database instance must be the same as the Oracle user name for the study schema in the study database instance. Because the users are in different database instances, the user names may have different passwords.
- Only one reporting environment is allowed per study schema.
- A single reporting database can hold multiple reporting schemas. The study schemas that are associated with these reporting schemas might exist in one or in multiple study databases.
- The study schema must be created with archive log mode enabled.

  For more information, see *Archive log mode in a multiple database environment* (on page 47).

Externally hosted trials

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

- The InForm application server(s) and the Cognos 10 BI application server(s) must be in the same domain.
- You must use the fully qualified domain name to access the site.

CHAPTER 4

Preparing to install

In this chapter

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Determining resources for multiple studies

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

- The number of InForm application servers on each physical server machine.
- The number of studies on each InForm application server.

  Note: Oracle recommends installing only one study per InForm application server in a production environment.

- The size of the intended 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

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 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 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
- Data items
- Users

For each study, consider the following:

- 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.

CHAPTER 5

Configuring the Oracle database

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Before configuring the Oracle database

Before you begin to configure the Oracle database, install the required Oracle software and patches. For more information, see the *Release Notes*.

For a checklist of Oracle installation and configuration steps, see ***Checklist—Installing and configuring Oracle*** (on page 11).

Initialization parameters for database instances

Depending on your environment, you might need one, two, or three database instances (the study, the Reporting and Analysis module, and Cognos 10 BI each need an instance).

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

Note: Additional parameter settings are required if your installation includes Cognos 10 BI and the Reporting and Analysis module and your study and reporting databases are in separate database instances. For more information, see ***Study database parameters—Different database instances*** (on page 46).

Parameter	Production server values		Development server values	
compatible	11.2.0 or 10.2.0		11.2.0 or 10.2.0	
cursor_sharing	Study database instance without reporting	exact	Study database instance without reporting	exact
	Reporting database instance	exact	Reporting database instance	exact
	Study and reporting in same database instance	exact	Study and reporting in same database instance	exact
db_block_size	Study database instance without reporting	16384	Study database instance without reporting	16384
	Reporting database instance	16384	Reporting database instance	16384
	Study and reporting in same database instance	16384	Study and reporting in same database instance	16384
db_file_multiblock_read_count	16		16	
db_cache_size See **Note 2**	0		0	
db_files	Database dependent.		Database dependent.	
open_cursors See **Note 2**	150		150	
optimizer_features_enable	11.2.0.1 or 10.2.0.3		11.2.0.1 or 10.2.0.3	
pga_aggregate_target	500M (dependent on how much memory is available for the Oracle database)		500M (dependent on how much memory is available for the Oracle database)	

Parameter	Production server values	Development server values
processes See **Note 2**	150 (or maximum number of concurrent processes)	50
session_cached_cursors	150	150
sga_target x See **Note 3**	1000M (dependent on how much memory is available for the Oracle database)	1000M (dependent on how much memory is available for the Oracle database)
shared_pool_reserved_size	5M	3.5M
	Reporting database instance True	Reporting database instance True
	Study and reporting in same database instance True	Study and reporting in same database instance True
streams_pool_size See **Note 1**	200M	200M
job_queue_processes	5 minimum: 1 job for each trial (the job to update PF_HEARTBEAT table every minute in each trial 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 trial (the job to update PF_HEARTBEAT table every minute in each trial schema) and 1 job for each propagation, plus streams' minimum requirement of 2 and Oracle MTS's requirement of 1)
statistics_levelx	Typical	Typical
workarea_size_policy	auto	auto
_optimizer_cost_based_transformation See **Note 4**	Off	Off
sec_case_sensitive_logon (11g only)	False	False

Parameter	Production server values	Development server values
_push_join_predicate (11g only)	False	False
deferred_segment_creation (11g only)	False	False
skip_unusable_indexes	No requirement for the trial database.	No requirement for the trial database.
undo_retention	900	900
parallel_max_servers	3	3

Note 1: These parameters can be changed if desired. Specifying a value other than zero in for these parameters enforces a minimum amount of memory that sga_target uses. The minimum is deducted from the total memory that sga_target can dynamically allocate across the five memory settings it manages.

Note 2: These parameters might need to be adjusted depending on the demands on the database that are created by the InForm application and Streams.

Note 3: Java_pool_size and large_pool_size are also managed by sga_target. They are not specified in a parameter list because they are not needed for the InForm application.

Note 4: Workaround provided by Oracle for database issue 5382842.

Create Oracle Database instances

If you are installing the InForm and Cognos reporting software in separate database instances for performance reasons. You could use separate database instances for each of the following:

- Each InForm server, which contains one InForm Admin schema and multiple InForm study schemas.
- InForm Reporting schema.
- Cognos 10 BI Content Store schema.
- PFCap Admin Schema

If you are installing the InForm and Cognos reporting software in the same database instance, you could use separate database instances for each of the following:

- Each InForm server, which contains one InForm Admin schema and multiple InForm study schemas and the Reporting schema.
- Cognos 10 BI Content Store schema.
- PFCap Admin Schema

Use the Oracle tools to create the instances you require for your configuration. If you plan to use the InForm application without the Reporting and Analysis module, create only a single instance for each InForm server.

Use the following character set specifications for both the InForm and the Cognos 10 BI Content Store instances:

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

To verify the character set settings:

1 Log into SQL*Plus. Type:

```
sqlplus system/<system_password>@<connection_string>
```

2 Run the following command:

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

Required InForm database accounts

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

- A DBA user for the InForm software. The default name of this user is pfdbadmin.
- A user that can connect to the 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 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 *Installing the InForm software* (on page 53).	*informprepora.vbs* (on page 158) For more information, see the *Study and Reporting Setup Guide*.
informadmin	Install Admin DB For more information, see *Installing the InForm software* (on page 53).	*admindb* (on page 148) For more information, see the *Study and Reporting Setup Guide*.

In a multi-tier installation of the InForm software, you create the pfdbadmin and the informadmin accounts on each server where you install the InForm software. Oracle recommends that you include the server name in the user ID of the pfdbadmin and informadmin accounts.

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

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.

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:

```
AUTOEXTEND ON NEXT 50M
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 disk to five disks.

Distributed InForm study tablespaces

In a production environment, Oracle recommends distributing tablespaces across multiple disks. This table presents a suggested model. 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.

Note: For production systems, Oracle does *not* recommend using a single server for both the InForm core software and the study database.

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

Physical disks	0		1	2	3	4
Logical disks	C:	D:	E:	F:	G:	H:
1 disk	Windows 2008 or 2003	Oracle INFORM SYSTEM Study Tables Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs				
2 disks	Windows 2008 or 2003	Oracle INFORM SYSTEM Study Tables Redo logs	Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs			
3 disks	Windows 2008 or 2003	Oracle INFORM SYSTEM Redo logs	Study Indexes TEMPBIG Redo logs UNDOTBS Archive logs	Study Tables		
4 disks	Windows 2008 or 2003	Oracle INFORM SYSTEM Redo logs	TEMPBIG Redo logs UNDOTBS Archive logs	Study Tables	Study Indexes	
5 disks	Windows 2008 or 2003	Oracle SYSTEM Redo logs	INFORM Redo logs UNDOTBS	Study Tables	Study Indexes	TEMPBIG Archive logs

Creating the INFORM_LOB tablespace

The INFORM_LOB tablespace is optional for InForm installation. To create the INFORM_LOB tablespace, use the following syntax:

```
CREATE TABLESPACE INFORM_LOB
DATAFILE '<path_to_reporting_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.	Use of this tablespace is optional, but, if used, the name INFORM_LOB is required for this tablespace. This tablespace can be used to hold large objects.

Creating a database schema for the Cognos Authentication Provider (CAP)

If you plan to install Cognos Reporting, you must create a database schema for the Cognos Authentication Provider (CAP). The purpose of this database schema is to store trial-to-authentication URL information. This schema can reside in the content store database instance or a separate database instance.

1 Set up an Oracle database schema.

2 Create a table to store the URL information for CAP.

3 Ensure that the database schema will be available from the study server and the Cognos 10 BI server.

4 Update the tnsnames.ora file located on the application server to contain an alias establishing a connection to the database server.

Configuring the database for the Cognos Authentication Provider

1 Create the user PFCapAdmin and grant the user these roles:

- Roles
  - CONNECT
  - RESOURCE
- Privileges
  - ALTER SESSION
  - CREATE DATABASE LINK
  - CREATE SEQUENCE
  - CREATE SESSION
  - CREATE SYNONYM
  - CREATE TABLE
  - CREATE VIEW
  - UNLIMITED TABLESPACE

2 Run the create_cap_table.sql script (located in the <Installation_Directory>\InForm\bin\DBOra folder) to create a table called TRIAL_URLS within this user/schema.

For more information, see *create_cap_table.sql* (on page 151).

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

3 Validate the database connection from the Cognos 10 BI server by typing:

```
sqlplus <contentuser_userid>/<contentuser_password>@<tnsnames_alias>
```

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.

Creating a database instance for the Cognos 10 BI content store

If you plan to install Cognos Reporting, you must create a database instance for the Cognos 10 BI content store.

1 Set up an Oracle database instance.

2 Create a database to store the content for Cognos 10 BI. Consult your Cognos documentation for details.

3 Update the tnsnames.ora file located on the content store server to contain an alias establishing a connection to the database server.

4 Specify the Unicode character set recommended by Cognos.

Note: The Unicode character set cannot be changed after the database is created.

Configuring the Cognos 10 BI 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 privileges:

- Roles
  - CONNECT
  - RESOURCE
- Privileges
  - CREATE ANY TABLE
  - CREATE TABLE
  - CREATE ANY VIEW
  - UNLIMITED TABLESPACE

3 Validate the database connection from the Cognos 10 BI server by typing:

```
sqlplus <contentuser_userid>/<contentuser_password>@<tnsnames_alias>
```

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.

Study database parameters—Different database instances

The Reporting and Analysis module requires you to add or modify several study database parameters. The following table shows the adjustments that must be made to these parameters when the Reporting and Analysis module is installed. All settings are necessary for both production and development servers.

Additionally, it is recommended that you review the **processes** and **sessions** parameters, which are not mandatory for the Reporting and Analysis installation.

For more information, see the Oracle database document, *Oracle Streams Recommendations*.

Parameter	Value	Comments
compatible	11.2.0 or 10.2.0	
global_names	TRUE	
job_queue_processes	5 minimum	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)
log_archive_dest	Destination where the archive logs will be written	You must enter at least one destination.
log_archive_dest_state_1	ENABLE	This enables the archive log destination (log_archive_dest_1). You must enter a state for every destination.
open_links	Four minimum	Four minimum is recommended by Oracle for Streams. Add one for each reporting schema.
parallel_max_servers	10	Minimum: 3 dependent on the number of parallel apply and/or capture processes.
timed_statistics	TRUE	Recommended by Oracle for collecting elapsed time information for Streams.
undo_retention	900 (minimum value)	
_job_queue_interval	One	Recommended by Oracle for Streams.
deferred_segment_creation (11g only)	False	

Archive log mode in a multiple database environment

You must create the study database with archive log mode enabled. You can create the database with scripts or with the Oracle Database Configuration Assistant utility.

- **Scripts**—Specify **archivelog** as part of the **create database** statement.
- **Oracle Database Configuration Assistant**—On the Archive tab, select the **Archive Log Mode** checkbox during the Initialization Parameters step.

Note: For more information about the Oracle Database Configuration Assistance utility, see the Oracle database document, *Oracle Administrators Guide* for your platform.

Configuring the Oracle client

The following registry settings are required for the Oracle client home on the InForm application server and the Cognos 10 BI 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

Configuring a database connection

To configure the Oracle Client on the application 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 InForm software, you enter the alias specified in the tnsnames.ora file as the database connect string.

Validating the database connection

To validate the database connection from the application server:

- Type the following statement at the Windows command prompt:

  sqlplus *pfdbadmin_userID/pfdbadmin_password@tnsnames_alias*

  pfdbadmin is the default user name and password for the pfdbadmin database account.

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.

Setting up Oracle XA Transaction Support

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

1 Select the **Prep Oracle** checkbox during the InForm installation. For more information, see *Installing the InForm core software* (on page 51).

or

Run the **mtsora102.vbs** script during or after the Oracle installation.

You must run the mtsora102.vbs script only if you are manually setting up XA Transaction Support. For more information, see the *Study and Reporting Setup Guide*.

Note: In a multi-tier environment, select the Prep Oracle checkbox during the InForm installation on each InForm application server, and run mtsora102.vbs script on each InForm database server. Restart the server if the script changes any of the MSDTC\Security or MSDTC\XADLL registry keys.

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 the SYS user with the SYSDBA role. Run the script against all Oracle instances connected to the InForm Application Server.

For more information, see the *Study and Reporting Setup Guide*.

CHAPTER 6

Installing the InForm core software

In this chapter

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About the InForm core software installation

The InForm core software installation process installs:

- The InForm Service.
- The InForm study and Admin databases.

Before you begin the InForm core software installation, make sure that the required preparation steps have been completed, and review the core installation tasks.

For a checklist of InForm installation steps, see *Checklist—Installing the InForm software* (on page 13).

Installing the InForm software

Installation	InForm core software
Purpose	The InForm software installation process installs: • The InForm core software. • The InForm documentation. • The InForm Portal. • The InForm sample trials.
File to extract	(Example: InForm_55_SP0.iso)
Where to install	InForm server.

1 Download the InForm software from the Oracle Download Center, and extract the ISO image.

2 Navigate to the location of the installation files on the downloaded ISO image, and double-click **setup.exe**.

The Choose Setup Language page appears.

3 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.

4 Click **Next**.

The Preparing Setup progress page appears. When setup is complete, the Welcome page appears.

5 Click **Next**.

The Customer Information page appears.

6 Type your **User Name** and **Company Name**.

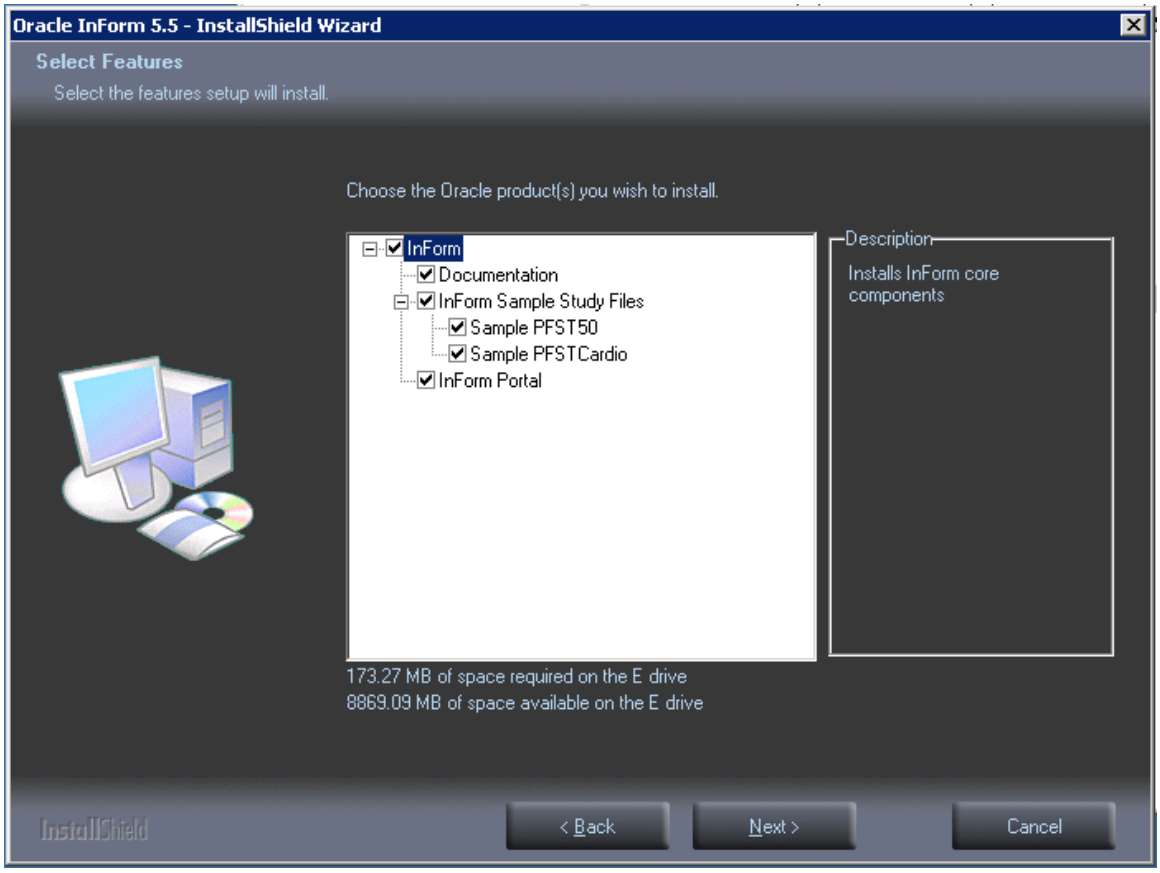
7 Click **Next**

The Choose Destination Location page appears.

8 Accept the default location, or click **Change** and browse to the desired location.

9 Click **Next**.

The Select Features page appears.



10 Expand the InForm node to see the list of products available for installation. The default core InForm software installation includes:

- InForm and Cognos product documentation.
- Sample studies.
- InForm Portal

The checkbox for the InForm Portal files is selected by default to enable the configuration of the InForm Portal application.

11 If you do not want to include the InForm Portal application in your installation, deselect **InForm Portal**.

> **Note:** For information about configuring the InForm Portal application, see the ***Portal Administration Guide***.

12 Click **Next**.

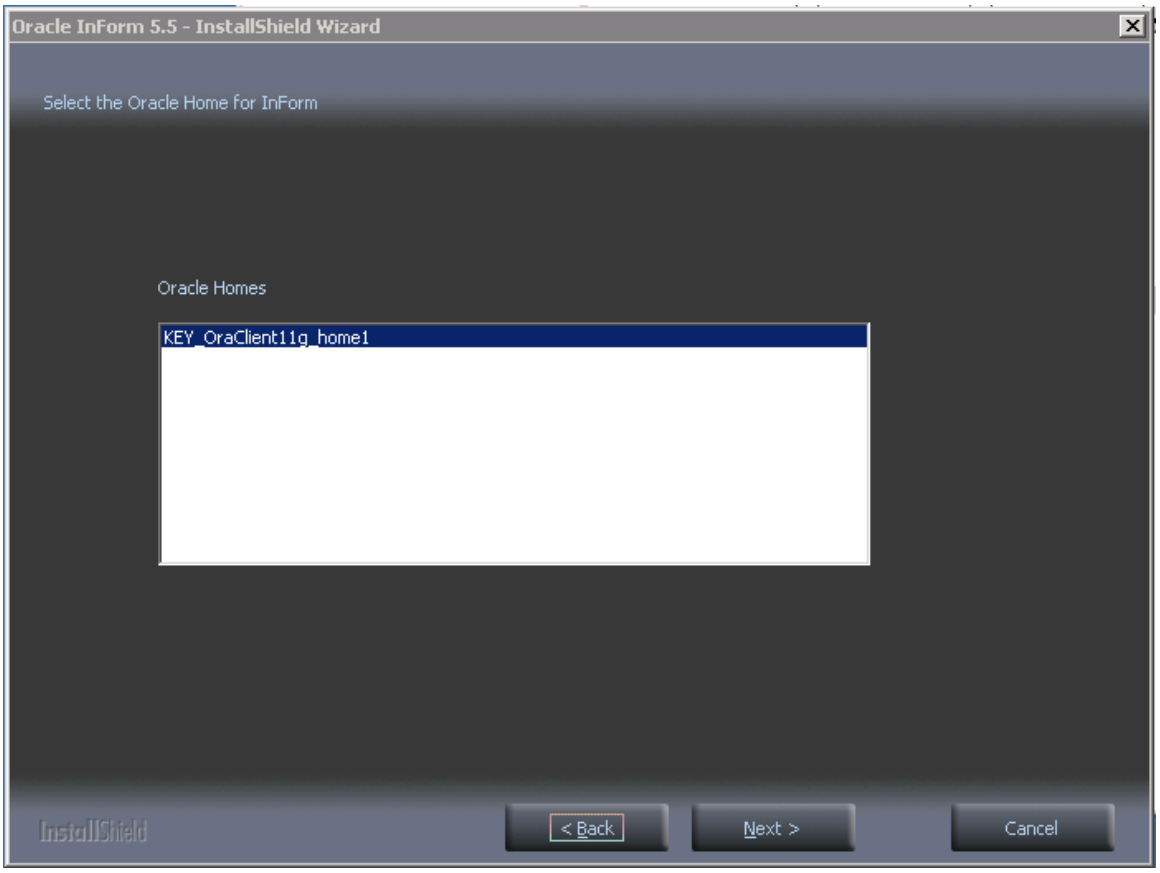
The Select Product Locale page appears.

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

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

14 Click **Next**.

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

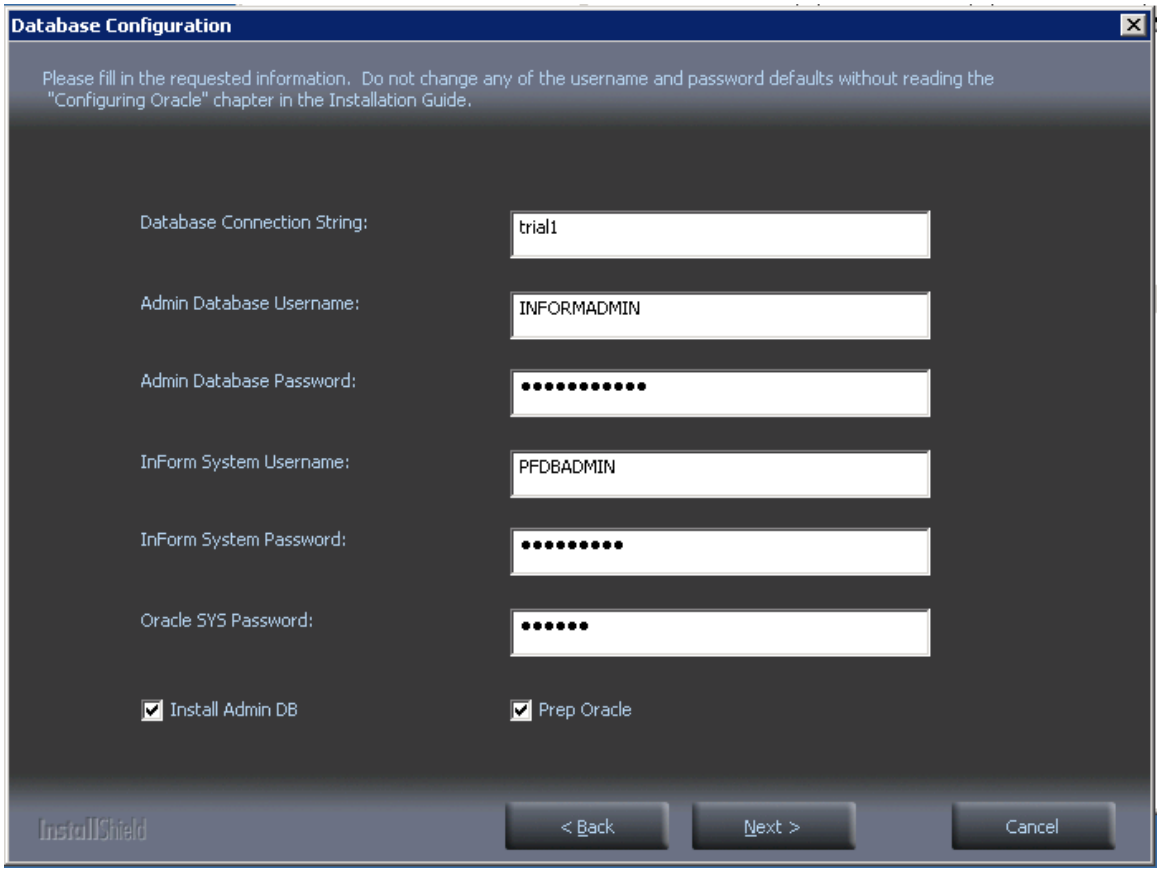


15 Select the entry for the Client Oracle Home registry key.

16 Click **Next**.

The Database Configuration page appears.

Note: The defaults on this page were set when you configured the Oracle database. The values for your installation might be different. When installing onto a production server, Oracle recommends that you change the pfdbadmin password after running this wizard. For more information, see ***Changing the pfdbadmin password*** (on page 59).



Enter values or accept the defaults for the configuration fields. Click **Next**.

Field	Description
Database Connection String	String that the InForm server uses to connect to the Oracle instance for the study.
Admin Database Username	User name that is required to access the Admin database. The default is **informadmin**.
Admin Database Password	Password that is required to access the Admin database. The password is not case-sensitive. **Note:** If users can access your production servers using SQL*Plus, Oracle recommends that you change the default Admin Database Password during installation for security. If users cannot access production servers using SQL*Plus, normal firewall security should be sufficient. Unlike the InForm system user name and InForm system password, the Admin database user name and Admin database password can be changed only during the installation process.
InForm System Username	User name for the study database. If this is a new InForm installation or if you change the user name from the default during the installation, select the **Prep Oracle** checkbox. This instructs the InForm software installation to create the InForm account using the user name and password you specify.

Field	Description
InForm System Password	Password for the study database. The default is **pfdbadmin**. The password is not case-sensitive. **Note:** Oracle recommends that you change the InForm system password after installing the InForm software. For more information, see the *Secure Configuration Guide*.
Oracle SYS Password	Password of the Oracle SYS account. This value is used only if you select the **Prep Oracle** checkbox to create the pfdbadmin account.
Install Admin DB	If selected, creates the: • informadmin user, using the Admin Database Username and Admin Database Password. • 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.vbs** script, which creates the study database user, using the InForm System Username and InForm System Password. • Runs the **mtsora102.vbs** script, which sets up Oracle XA Transaction Support and sets the MTS Timeout to a minimum of 300 seconds. 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 or InForm Username is wrong), a Database Configuration Error window appears. For more information, see *Oracle MTS configuration is invalid* (on page 142).

17 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.

18 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.

19 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.

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

23 When the setup is finished, the Oracle InForm 5.5 Reboot page appears.

24 You must reboot the system if any of the following is true:

- ODAC was upgraded during the installation process.
- The PATH environment variable was modified.
- The installation tried to access a locked file.

25 Select **Yes** or **No** to indicate whether you want to reboot at this time, and click **Finish**.

After rebooting, the final configuration process continues.

When the system is finished, the InstallShield Wizard Complete page appears.

26 Click **Finish**.

Changing the pfdbadmin password

When you install the InForm software on a production server, Oracle recommends that you change the default password for the pfdbadmin user on the InForm application server. You can change this password on this window during the installation, or manually either before or after installing.

To change and register the password of the pfdbadmin user, run the informprepora.vbs script:

1 Open a Command Prompt window.

2 Execute the following command from the InForm\Bin\DBOra folder of the InForm installation:

```
cscript informprepora.vbs oracle_connection_string password_for_SYS_user
[pfdbadmin_userid new_pfdbadmin_password]
```

3 Enter the following command to put the new password in the Registry:

```
pfadmin config service /sysdba pfdbadmin_userid new_pfdbadmin_password
```

For more information, ***informprepora.vbs*** (on page 158).

Enabling Secure Sockets Layer (SSL)

Purpose	Enables secure communications between servers.
Where to perform	All servers.

Oracle recommends that you enable Secure Sockets Layer (SSL) for production server installations. If you are not using Cognos Reporting, enable SSL on all the servers at this time. If you are using Cognos Reporting, you can enable SSL on the InForm servers at this time and the Reporting servers after you install them, or wait until after the Cognos installations are complete, and enable SSL on all of the servers.

To enable SSL:

- Create, set up, and install and import key certificates.
- Verify that the key certificates are installed correctly.
- If you are installing Cognos Reporting, on the InForm application server update the following entries for the AuthenticationFilter key in the Windows Registry:
  - ExternalLoginURL
  - ExternalLoginFailureURL

  Note: If you are installing an InForm-only environment without Cognos Reporting, updating the ExternalLoginURL and ExternalLoginFailureURL registry key entries is not necessary.
- Enable the InForm SSL system configuration option for each study through the InForm user interface or the MedML Installer utility. For more information, see the *Study and Reporting Setup Guide*.

Creating, setting up and installing a key certificate for SSL in IIS 7.0

These procedures are for Windows server 2008, with Internet Information Services (IIS) 7.0.

Creating and setting up a key certificate for SSL in IIS 7.0

1 Open **Internet Information Services (IIS) Manager**.

2 Open the **<***machine_name***>** node.

3 Go to the **IIS Group > Feature View** and select **Server Certificate**.

4 From the **Actions** view, click **Open Features**.

5 From the resulting **Actions** view, select **Create Certificate Request**.

6 Request Certificate Wizard opens.

7 Complete the **Request Certificate** page. Specify the name of the study server in the **Common name** field, including the FQDN (for example: <*machine_name*>.north.pf.com).

8 Click **Next**.

9 Leave all default values in **Cryptographic Service Provider Properties** and click **Next**.

10 Click the **Browse**.

11 Specify the certificate request name and folder details.

12 Click **Save**.

13 Click **Open**. The file name appears in the text box.

14 Click **Finish**.

Installing a key certificate on the server machine in IIS 7.0

1 Open your browser and go to the security certificate server URL: http://<*Windows_2008_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 Go to **Start > Run**, and type **mmc**.

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 Certificate Authorities**.

9 Right-click **Certificates** and select **Import**.

10 Browse to the certificate you created, select it, and complete the wizard, using all defaults.

11 Repeat Step 8 through 10 for **Certificates > Local Computer**.

> **Note:** Make sure **<Windows_2008_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**.

Verifying that the certificate is installed correctly

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.

Updating the DomainSuffix entry for the AuthenticationFilter registry key

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 InForm study machine and the Cognos 10 BI Gateway Services machine.

- You use proxy servers for the Cognos 10 BI Gateway Services machine and the InForm study 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 InForm server and the Cognos 10 BI Gateway Services software. If the FQDN for both installations ends in a common domain suffix such as **.net**, **.com**, **.org**, **.edu,** or **.gov** (with or without country name like **.uk** or **.au**), you do not need to update the DomainSuffix entry unless you use proxy servers.
- If the FQDN has just two levels. (For example: <*servername*>.com.)

Perform the DomainSuffix configuration on both the Cognos 10 BI Gateway Services machine and the InForm study server. Both machines *must* have identical AuthenticationFilter entries for DomainSuffix.

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

`MyComputer\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. Edit the entry:

- If you use proxy servers, or if the fully qualified domain name 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 <s*ervername*>.<*companyname*>.co.uk, after the edit, the entry would be <*companyname*>.co.uk.
- If the InForm software and Cognos 10 BI 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 InForm server, restart the InForm Service.

Updating the ExternalLoginURL and ExternalLoginFailureURL entries on the InForm server

If you are implementing SSL, perform these steps.

On each server that hosts an InForm study, update the ExternalLoginURL and ExternalLoginFailureURL entries for the Oracle AuthenticationFilter registry key.

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

MyComputer\HKEY_LOCAL_MACHINE\SOFTWARE\PHASEFORWARD\AuthenticationFilter

2 Update the entries for **ExternalLoginURL**, **ExternalLoginFailureURL**. For each entry:

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

The Edit String dialog box appears.

b Enter the new value in the **Value Data** field and click **OK**. For more information, see the table that follows this procedure.

3 Exit the **Windows Registry Editor**.

4 Restart IIS.

Entry	What to specify in the Value Data field

ExternalLoginURL	Specify the URL to configure for HTTPS, and make sure that the <*portnumber*> value reflects the port number for HTTPS.
	`https://<servername>.<domainname>:<portnumber>/PFExternalLogin/ExternalLoginFrameset.html`
	Example:
	`https://www.sample.com:443/PFExternalLogin/ExternalLoginFrameset.html`

ExternalLoginFailure URL	Specify the URL to configure for HTTPS, and make sure that the <*portnumber*> value reflects the port number for HTTPS.
	`https://<servername>.<domainname>:<portnumber>/PFExternalLogin/ExternalLoginEscape.html`
	Example:
	`https://www.sample.com:443/PFExternalLogin/ExternalLoginEscape.html`

Qualifying 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 InForm application. The tests are divided into Admin and CRC/CRA tests.

Qualification prerequisites

☑ Prerequisite	Where to get more information
❑ InForm software is installed.	Installing the InForm software
❑ Sample study PFST55 is installed, and the server and study are running.	*Study and Reporting Setup Guide*, *Setting up an InForm study* > *Installing a sample study* *Study and Reporting Setup Guide*, *Setting up an InForm study* > *Starting an InForm server and study*
❑ Passwords for **dobrien** and **lhill** users have been changed to **InForm**.	*Changing the passwords of the sample study users* (on page 66)

Changing the passwords of the sample study users

1 Log in to the PFST55 study as **system/manager**.

2 Click **Admin**.

3 For the **dobrien** and **lhill** users:

a Click the user **Account Name**.

b On the Users page, deselect the **User Active** checkbox.

c Click **Submit**, and click **OK** in the message box.

d Click **Change Password**.

e On the Change Password page, type **InForm** in the **New password** and **Confirm new password** fields.

f Click **Submit**, and click **OK** in the message box.

g Click **Return**.

h On the Basic Info for User page, select the **User Active** checkbox.

i Click **Submit**, and click **OK** in the message box.

4 Log out.

Admin—Users test

Pass/Fail	Step	Description
	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	Click **Users**, and verify that the following users are active: • lhill • dobrien • mcarlson
	5	On the **Users** page, click **Add User**.
	6	Enter X in the **User Name** field. In the **User must change password at next login** field, select **No**. Select values in the **Product Locale** and **Preferred Study Locale** fields. Click **Submit**, and click **OK** in the message box.
	7	Click **Return**. Verify that user X is shown in the list.
	8	Click the **Account Name** and the **Group** tab for user X. Assign a rights group and two user site associations. Click **Submit**, and click **OK** in the message box.
	9	Click **Return**. Click any link for user X.
	10	Click **Change Password**. Give user X a password with eight characters or more. Click **Submit**, and click **OK** in the message box.
	11	Click **Return**. Select **User Active**. Click **Submit**, and click **OK** in the message box. Log out.
	12	Log in as user X, using the password assigned in Step 10. Click **Subjects**. Verify that the **Site** drop-down list contains only the sites selected in Step 8.
	13	Log out.

Admin—Rights test

Pass/Fail	Step	Description
	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

Pass/Fail	Step	Description
	1	Select **Sites**. Click **Add Site**. Enter the new site information. **Site Name**, **Site Mnemonic**, and **Study Locale** are required. Click **Submit**, and click **OK** in the message box.
	2	Click **Return**. Verify that the site that you just created is in the list.

Admin—Groups test

Pass/Fail	Step	Description
	1	Select **Groups**. Click **Add Group**. Select **Signature** from the **Group Type** drop-down list, and type the group information. Click **Submit**, and click **OK** in the message box.
	2	Click **Return**. Verify that the signature group you just created is in the list.

Pass/Fail	Step	Description
	3	Click **Add Group**. Select **Query** from the **Group Type** drop-down list, and enter group information. Click **Submit**, and click **OK** in the message box.
	4	Click **Return**. Verify that the query group you just created is in the list.

Admin—Users and Groups test

Pass/Fail	Step	Description
	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* (on page 68).
	2	Select user X in the **Available users** list. Click **Add**.
	3	Verify that user X is in the **Users in** (signature group) list. Click **Submit**, and click **OK** in the message box.
	4	Click **Return**. 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* (on page 68).
	6	Select user X in the **Available users** list. Click **Add**.
	7	Verify that user X is in the **Users in** (query group) list. Click **Submit**, and click **OK** in the message box.
	8	Click **Return**. 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, using the following URL:

```
http://machine_name/pfst55
```

2 Log in to one session as **dobrien** (a CRC) and the other as **lhill** (a CRA).

3 Perform the CRC/CRA tests.

As dobrien (CRC)

Pass/Fail	Step	Description
	1	Click **Enroll**. Click **Add Candidate**. A question window appears.
	2	Enter subject information. Click **Submit**.
	3	Click the **Screening Number** for the subject who was just entered. Edit one of the fields, and provide a reason for change. Click **Submit**, and verify that the field you edited is changed.
	4	Click **Return**.
	5	In the **Enrolled** column, click the **Enroll** link.
	6	Enter the subject number (site ID followed by a hyphen and a 3-digit number). Click **Submit**. The System Enrollment page displays the heading Candidate Meets All Criteria for Enrollment in Study.
	7	At the bottom of the page, click **Enroll**. Verify that a Subject Schedule (Visit Calculator) page appears for the subject with a default baseline date of the current date.
	8	Change the **Start Date**. Verify that the associated dates are updated correctly.
	9	Click **Go To First Visit**.
	10	Complete the DOV form. Click **OK**. The list of forms for the first visit appears. Navigate to each form in the first visit.
	11	Click the Time and Events arrow at the left end of the visit ruler. View the Time and Events Schedule to check all visits for the new subject.

Pass/Fail	Step	Description
	12	Click the status icon for the Base visit. Click the status icon for the Demographics form. Enter data in the form, and click **Submit**.
	13	Click **Return**. Click the status icon for the Vital Signs form. Enter a value of 200.5 degrees Fahrenheit in the Temperature item. Click **Submit**, and verify that an autoquery is generated. (The background for the question becomes pink and an error message is shown in red.)
	14	Click the comment icon in the right column for an item, and add a comment in the **Comment** field. Click **Submit**, and click **OK** in the message box.
	15	Click **Return**. Click the query text. On the Queries detail page, click **Update Data and Answer**. Change the Temperature value to 98.6 and add a reason for change. Click **Submit**, and click **OK** in the message box.
	16	Verify that the auto-query is answered. The background for the question changes from pink to gray.
	17	Click the status icon for any form that has data. Select **Mark SV Ready** from the **Select Action** list, and click **Apply**.
	18	Click the status icon for the Demographics form. Select **Print Preview** from the **Select Action** list, and click **Apply**. Verify that the preview of the form appears. Click **Print**.
	19	Verify that the report prints with the correct information.
	20	Click the **Help** icon, and select **InForm User Guide**. Verify that the *User Guide* is installed and functioning.

As dobrien (CRC) and lhill (CRA)

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

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

Pass/Fail	Step	Description
	4	As **dobrien**: Refresh the Demographics form: click the **CRF history** icon ( ), and select the Demographics form. Re-answer the query. Click **Submit**, and verify that the query disappears from the form.
	5	As **lhill**: Refresh the Demographics form: click the **CRF history** icon ( ), and select the Demographics form. Close the query: Click the query icon, and in the Current Value section, click **Close Query**. In the Query section, select a reason. Click **Submit**, and verify that the query disappears from the form.
	6	Log out of both browser sessions.

CHAPTER 7

Installing the Cognos 10 BI core software and Oracle Directory Server

In this chapter

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About the Cognos 10 BI core software installation

The Cognos 10 BI software installation process installs:

- Cognos 10 BI Application Tier Components.
- Cognos 10 BI Gateway services.
- Cognos 10 BI Content Manager.

You can install the components on separate servers or on the same server, or you can distribute each component across multiple servers. For more information, see the *Cognos Installation and Configuration Guide*, which is included in the InForm product download.

For more information, see ***Checklist—Installing the Cognos 10 BI core software*** (on page 16).

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.

Create the PFWD organizational unit (OU) and crnsysadmin user on the Oracle Directory Server

If you are using Reporting, you must create an PFWD namespace and crnsysadmin user on the Cognos Content Manager Server and the Cognos Report Server. For more information, see *Creating PFWD and LDAP namespaces on the Cognos 10 BI server* (on page 110)

1 On the server where the Oracle Directory Server is installed, use the Cognos Configuration utility to ensure that the Cognos 10 BI Reporting 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. In the Directory Servers list, click the server name.

The Server Operations tab opens.

4 Select the Entry Management tab.

5 Select the DN from the Browse Data list, and click **New Entry**.

The New Entry wizard page displays the Specify Entry Location page.

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

The Choose Object Class page appears.

7 Select **Organizational Unit - (organizationalUnit)** from the Entry Type drop-down list, and click **wizard button next**.

The Configure Attributes page appears.

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

The Summary page appears.

9 Review the information. If it is correct, click **wizard button finish**.

The ORACLEHS node is added to the Browse Data list.

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

The New Entry wizard displays the Specify Entry Location page.

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

The Choose Object Class page appears.

12 Select **User - (inetOrgPerson)** from the Entry Type drop-down list, and click **wizard button next**.

The Configure Attributes page appears.

13 Create a new user for the PFWD namespace as follows:

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

14 Click **wizard button next**.

The Summary page appears.

15 Review the information. If it is correct, click **wizard button finish**.

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

Installing the Cognos 10 BI software

Installation	Cognos 10 BI core software
Purpose	The Cognos 10 BI software installation process installs: • Cognos 10 BI Application Tier Components. • Cognos 10 BI Gateway services. • Cognos 10 BI Content Manager.
File to extract	**bi_svr_32b_10.2.1_win_ml.tar.gz**
Location of issetup.exe	\\Win32 folder.
Where to install	Cognos 10 BI server or servers. You can install the components on separate servers or on the same server, or you can distribute each component across multiple servers. For more information, see the *Cognos Installation and Configuration Guide*, which is included in the InForm product download.

1 Download the **bi_svr_32b_10.2.1_win_ml.tar.gz** file from the Oracle Download Center, extract the archive file, and navigate to the issetup.exe file in the \Win32 folder.

2 Double-click **issetup.exe**.

The Welcome page of the installation wizard appears.

3 Select the language to use for the installation, and click **Next**.

The License Agreement page appears.

4 Read the license agreement, select **I accept**, and click **Next**.

The Installation Location page appears.

5 In the **Installation Directory** field, browse to or type the drive and destination folder for Cognos 10 BI Reporting (for example E:\cognos\c10), and click **Next**.

If the **Folder does not exist** message appears, click **Yes** to create the folder.

The Component Selection page appears.

6 Make sure that all components except Cognos Content Database are selected, and click **Next**.

The Shortcut Folder page appears.

7 Accept the default Program folder, and click **Next**.

The Installation Summary page appears.

8 Review the installation summary, and click **Next**.

The installation program installs the components that you selected. This takes several minutes. When the component installation is complete, the Finish page appears.

9 On the Finish page:

- To view the transfer log or the summary-error log, click the appropriate **View** button.
- To view the readme file, select **View Cognos Readme**.
- Verify that **Start Cognos Configuration** is *not* selected.

10 Click **Finish**.

Installing the Cognos 10 BI interim fix updates

Installation	Cognos 10 BI interim fix updates.
Purpose	Upgrades the Cognos 10 BI software to required patch levels.
File to extract	• **up_bisrvr_win32_10.2.5000.1030_ml.tar.gz** • **up_bisrvr_win32_10.2.5000.1079_ml.tar.gz** • **up_bisrvr_win32_10.2.5000.1125_ml.tar.gz** • **up_bisrvr_win32_10.2.5000.1129_ml.tar.gz** • **up_bisrvr_win32_10.2.5000.1137_ml.tar.gz**
Location of issetup.exe	\\Win32 folder.
Where to install	Server where the Cognos 10 BI core software is installed.

In addition to the Cognos 10 BI software, you must install the following interim fix updates:

1 Download each interim fix file from the Oracle Download Center and install the interim fix updates in the following order:

   a up_bisrvr_win32_10.2.5000.1030_ml.tar.gz

   b up_bisrvr_win32_10.2.5000.1079_ml.tar.gz

   c up_bisrvr_win32_10.2.5000.1125_ml.tar.gz

   d up_bisrvr_win32_10.2.5000.1129_ml.tar.gz

   e up_bisrvr_win32_10.2.5000.1137_ml.tar.gz

2 Extract each archive file into a different folder from the folder where you originally downloaded the Cognos 10 BI version software, and navigate to the issetup.exe file in the \Win32 folder.

3 Double-click **issetup.exe**.

   The Welcome page of the upgrade wizard appears.

4 Select the language to use for the installation, and click **Next**. English is the default language.

   The License Agreement page appears.

5 Read the license agreement, select **I accept**, and click **Next**.

   The Installation Location page appears.

6 In the Installation Directory field, browse to or type the same drive and destination folder that you specified for the initial installation of the Cognos 10 BI Reporting software (for example C:\cognos\c10), and click **Next**.

   The following message appears:

```
The installation will replace existing files.
Select 'Yes' to automatically create a backup of all files that are replaced.
```

7 Click **Yes**.

   The Shortcut Folder page appears.

8 Accept the default Program folder, and click **Next**.

The Installation Summary page appears.

9 Review the installation summary, and click **Next**.

When the installation is complete, the Finish page appears.

10 To review the transfer log or summary error log, click the appropriate **View** button.

11 Click **Finish**.

Upgrading Cognos 10 BI software to Fix Pack 3

Installation	Cognos 10 BI core software to Fix Pack 3 upgrade.
Purpose	Upgrades the Cognos 10.2.1 core software to Fix Pack 5.
File to extract	**up_bisrvr_win32_10.2.5003.113_ml.tar.gz**
Location of issetup.exe	\\Win32 folder.
Where to install	Server where the Cognos 10 BI core software is installed.

1 Download the **up_bisrvr_win32_10.2.5003.113_ml.tar.gz** file from the Oracle Download Center, extract the archive file into a different folder from the folder where you originally downloaded the Cognos 10 BI version SP0 software, and navigate to the issetup.exe file in the \Win32 folder.

2 Double-click **issetup.exe**.

The Welcome page of the upgrade wizard appears.

3 Select the language to use for the installation. English is the default. Click **Next**.

The License Agreement page appears.

4 Read the license agreement, select **I accept**, and click **Next**.

The Installation Location page appears.

5 In the Installation Directory field, browse to or type the same drive and destination folder that you specified for the initial installation of Cognos 10 BI Reporting (for example C:\cognos\c10), and click **Next**.

The following warning appears:

```
The installation will replace existing files.
Select 'Yes' to automatically create a backup of all files that are
replaced.
```

6 Click **Yes**.

The Shortcut Folder page appears.

7 Accept the default Program folder, and click **Next**.

The Installation Summary page appears.

8 Review the installation summary, and click **Next**.

When the installation is complete, the Finish page appears.

9 To review the transfer log or summary error log, click the appropriate **View** button.

10 Click **Finish**.

Setting up the Oracle JDBC driver

Purpose	Makes the Oracle JDBC driver available on the server or servers where the Cognos 10 BI Content Manager is installed.
Location of file	ojdbc6.jar—Download from the Oracle support website.
Where to perform	Every server where the Cognos 10 BI Content Manager is installed.

Before running the wizards that customize the Cognos 10 BI software for the InForm environment, you must set up the Oracle JDBC driver on any computer that has a Cognos 10 BI Reporting Content Manager installed.

1 Download the ojdbc6.jar file from the Oracle support website.

2 Copy the **ojdbc6.jar** file to the <Cognos_Installation_Directory>\webapps\p2pd\WEB-INF\lib folder.

Enabling Secure Sockets Layer (SSL)

Purpose	Enables secure communications between servers.
Where to perform	All servers.

If you have not already done so in *Enabling Secure Sockets Layer (SSL)* (on page 60), Oracle recommends that you enable Secure Sockets Layer (SSL) for all Cognos servers in production server installations.

To enable SSL:

- Create, set up and install and import key certificates. For more information, see *Enabling Secure Sockets Layer (SSL)* (on page 60).
- Verify that the key certificates are installed correctly. For more information, see *Verifying that the certificate is installed correctly* (on page 63).
- If you are installing Cognos Reporting, on the InForm application server update the following entries for the AuthenticationFilter key in the Windows Registry:
  - ExternalLoginURL
  - ExternalLoginFailureURL

    For more information, see *Updating the ExternalLoginURL and ExternalLoginFailureURL registry key entries on the Cognos 10 BI servers* (on page 105).

  Note: If you are installing an InForm-only environment without Cognos Reporting, it is not necessary to update the ExternalLoginURL and ExternalLoginFailureURL registry key entries.
- Enable the InForm SSL system configuration option for each study through the InForm user interface or the MedML Installer utility.

Customizing Cognos 10 BI email settings

Purpose	Configures the SMTP mail server so that email can send links to report output.
Where to perform	Any Cognos 10 BI server.

You can set up a feature that you can use to send links to report output using email. By default, the report links point to the server where the Cognos 10 BI Gateway services are installed (the Gateway server).

If your environment is configured with an F5 switch, and you must use the generic URL to the switch, and instead of pointing to the Gateway server, you must configure the SMTP mail server, using the Cognos Configuration utility.

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

For more information, see the *Cognos 10 BI Reporting Quick Start Installation and Configuration Guide*.

2 Select **File > Save**.

The Cognos Configuration utility validates the settings and saves the configuration.

3 When the checks are complete (all items are marked with a green check mark), click **Close**.

4 Select **Actions > Start**.

The Cognos Configuration utility registers and starts the Cognos 10 BI Service.

5 Click **Close**, and close the Cognos Configuration utility window.

Configuring the Internet Information Services (IIS) for Windows on the Cognos Gateway server

Purpose	Enables Web Service Extensions so that IIS works with Windows 2008.
Where to perform	Server where the Cognos 10 BI Gateway services are installed.

If you install Cognos 10 BI on its own dedicated server, you must configure IIS to work with Windows 2008. On the server where the Cognos 10 BI Reporting Gateway services are installed:

1 Navigate to **Control Panel > Administrative Tools > Internet Information Services (IIS) Manager**, and expand the node for the local computer.

2 Select **Web Service Extensions**.

3 Make sure that the following options are set to **Allowed**:

- All Unknown CGI Extensions.
- All Unknown ISAPI Extensions.
- ASP.NET v1.1.4322.
- ASP.NET v2.0.50727.
- WebDAV.
- Active Server Pages.

CHAPTER 8

Customizing the Cognos 10 BI software for the InForm environment

In this chapter

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About customizing the Cognos 10 BI software for the InForm environment

To customize the Cognos 10 BI software for the InForm environment, you run installation and configuration wizards, you create the PFWD namespace, update registry settings, and crnsysadmin user.

For a checklist of configuration steps, see *Checklist—Customizing Cognos 10 BI for Reporting and Analysis* (on page 18).

Running the CRNConfig\setup.exe wizard

Wizard	Cognos 10 BI Customization for InForm (CRNConfig\setup.exe).
Purpose	Copies customization files and modifies files needed to customize the Cognos 10 BI software for the InForm application.
Location of setup.exe	CRNConfig folder of the InForm installation image.
Where to install	Server where the Cognos 10 BI Content Manager is installed and each Cognos 10 BI report server.

1 Copy the CRNConfig folder from the InForm installation image to a location that you can access from the server where the Cognos 10 BI Content Manager is installed and each Cognos 10 BI report server.

2 On the server where the Cognos 10 BI Content Manager is installed and each Cognos 10 BI report server, run the **CRNConfig\setup.exe** program file.

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**.

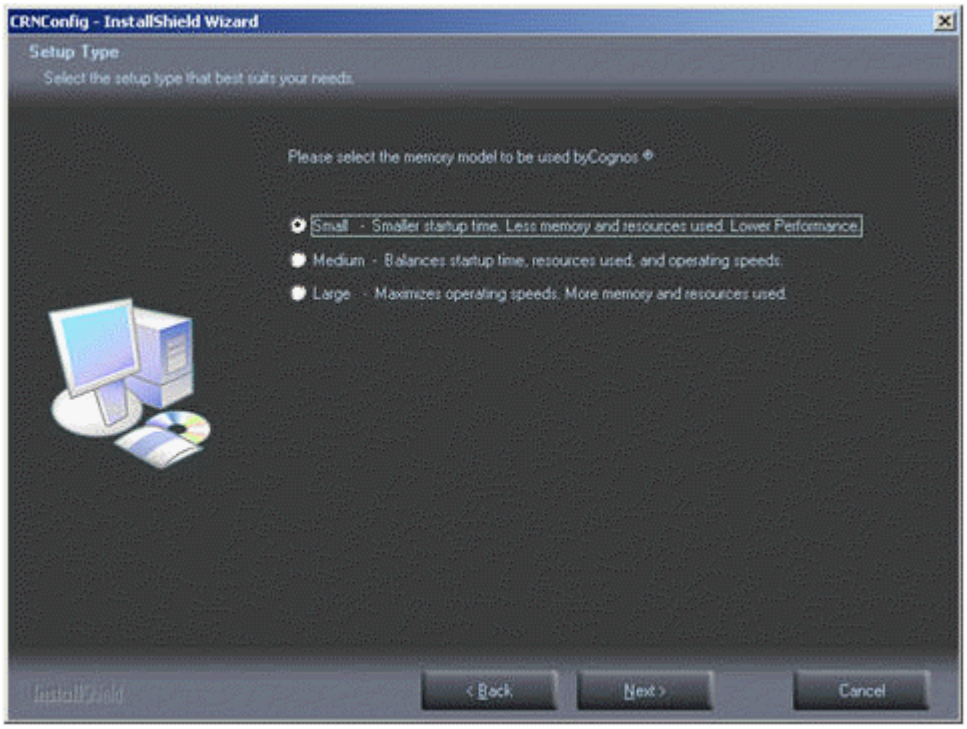
The Welcome page appears.

4 Click **Next**.

The Cognos 10 BI Installation Location page appears.

5 Specify the folder in which the Cognos 10 BI Content Manager is installed, and click **Next**.

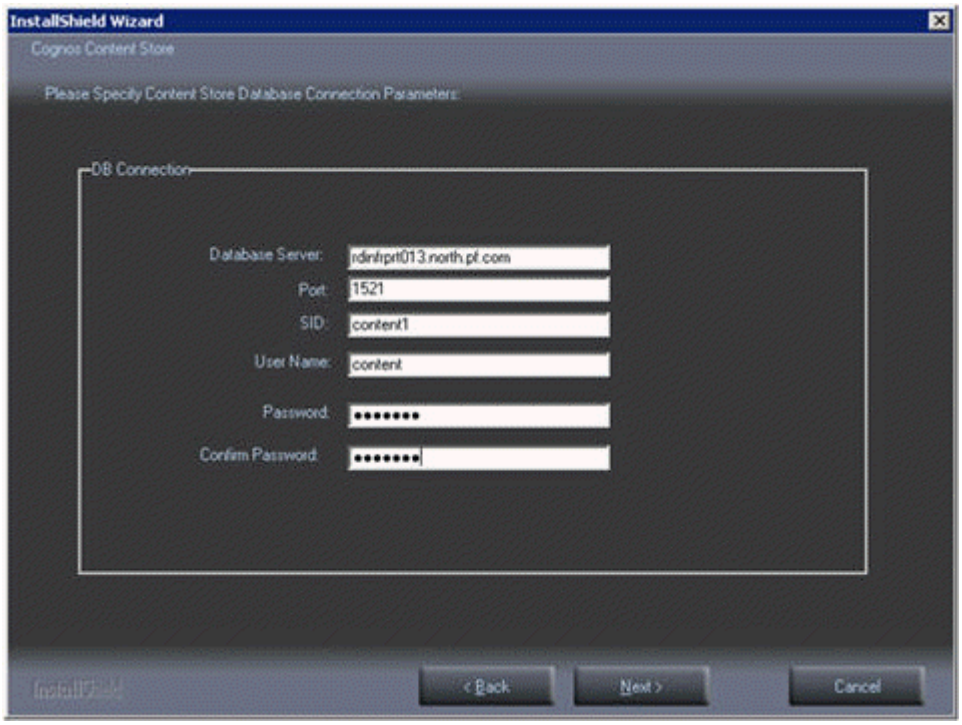
The Setup Type page appears.



6 Select the memory model (Small, Medium, or Large) that is most appropriate for your business, and click **Next**.

Note: You can change this later if you select the wrong size.

The Content Store page appears.

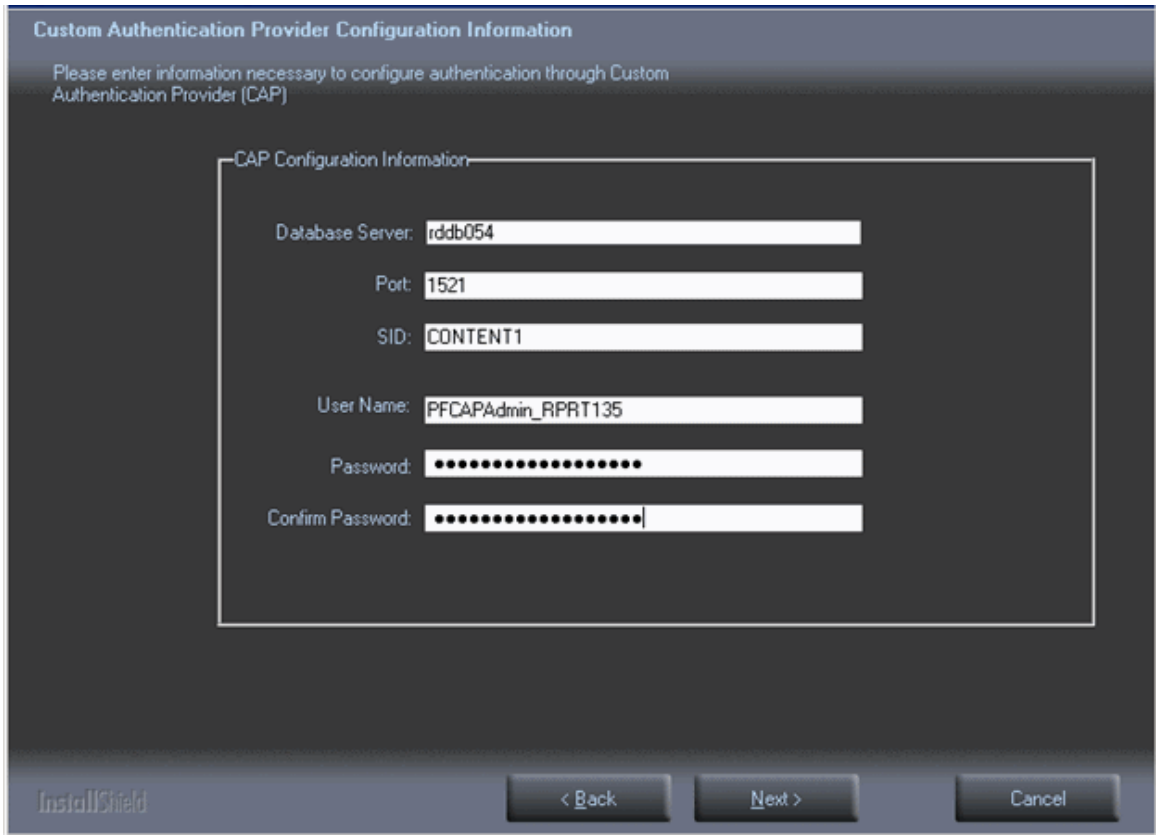


7 Enter the following values.

Field	Description
Database server	Fully qualified domain name of the database server where the Cognos 10 BI Content Store schema is installed.
Port	Port number for communicating with the database server.
SID	SID for communicating with the database server.
User Name	User name of the Oracle user in the Cognos 10 BI content store database. You created this user when you configured the Cognos 10 BI content store database.
Password, Confirm Password	Password of the CBI user in the Cognos 10 BI content store database.

8 Click **Next**.

The Custom Authentication Provider Configuration Information page appears.

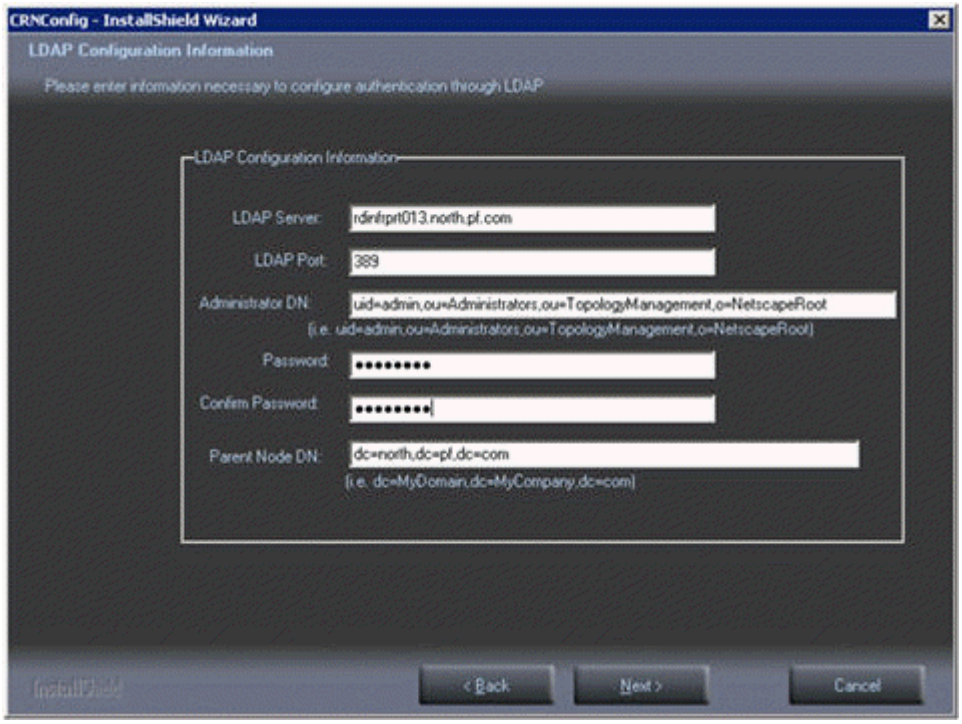


9 Enter the following values.

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 CBI user in the Cognos 10 BI content store database.

10 Click **Next**.

The LDAP Configuration Information page appears.



11 Enter the following values.

Field	Description
LDAP Server	Fully qualified domain name of the server where 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 (Base Distinguished Name)	Distinguished name of the Parent Node. Use the format shown beneath the field. Do not enter a space between after the comma 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	Location of the Cognos Admin organizational unit.

12 Click **Next**.

The CRN Web Server (gateway or IIS server) page appears.

13 Type the fully qualified domain name of the Cognos 10 BI Gateway server, or click **Browse** to select it from the dialog box.

14 Click **Next**.

If the server has not yet been installed, the installation script asks if it should continue using the server name provided. If so, click **OK**.

The Ready to Install the Program page appears.

15 Click **Install**.

The Setup Status page appears.

The program copies the necessary files and creates the CRNSetup.xml file in an InForm subfolder under the Cognos installation (...\InForm\Config). The name and location of the file appear in a message window. You need the CRNSetup.xml file to run the Cognos 10 BI Gateway Customization for InForm wizard.

16 The Wizard Complete page appears.

17 Click **Finish**.

Changing or creating a new MotioCAP_informcap.properties file

The Cognos 10 BI Customization for InForm wizard also creates the **MotioCAP_informcap.properties** file. The information in the file is used to configure the custom authentication provider's connection to Oracle Directory Server (LDAP).

Note: In most cases you do not need to change the MotioCAP_informcap.properties file.

Circumstances that require changes to file	Required action
LDAP configuration changes after installation.	LDAP properties used for authenticating the admin OU: Enter the URL of the server where LDAP is installed. Change the number of the LDAP port if necessary. **Example: ldap.url=ldap://appsru02.north.pf.com:389** Enter the **Parent Node Distinguished Name**. **Example: ldap.base.dn=dc=north,dc=pf,dc=com** Enter the **Administrator Distinguished Name**. This user name is used by the Custom Security Provider (CSP) to log on to LDAP. **Example: ldap.bind.username=uid=admin,ou=Administrators, ou=TopologyManagement,o=NetscapeRoot** Change **encrypted** to **unencrypted** and set the password in plain text. The password is encrypted when Cognos Reporting starts up. **Example: ldap.bind.password=unencrypted:password**

Circumstances that require changes to file	Required action
New namespace is added after the Cognos 10 BI Reporting configuration.	Duplicate and edit the file for each namespace: Copy the MotioCAP_informcap.properties file and save it to the same directory as the original. Name the new copy MotioCAP_<new_namespace_name>.properties. Edit the following properties as necessary: • ldap.url • ldap.base.dn • ldap.bind.username • ldap.bind.password
The database user and/or database user password changes after installation.	**Note:** These will be encrypted after the first run. db.user=encrypted:<db_username> db.password=encrypted:<db_user_password>

Running the CRNGatewayConfig\setup.exe wizard

Wizard	Cognos 10 BI Gateway Customization for InForm (CRNGatewayConfig\setup.exe).
Purpose	Configures the Cognos 10 BI Gateway services component to work with the InForm application.
Location of setup.exe	CRNGatewayConfig folder of the InForm installation image.
Where to install	Server where the Cognos 10 BI Gateway services component is installed.

1 Copy the CRNGatewayConfig folder from the InForm installation image to a location that you can access from the server where the Cognos Gateway software is installed.

2 On the server where the Cognos Gateway software is installed, run the CRNGatewayConfig\setup.exe program file.

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**.

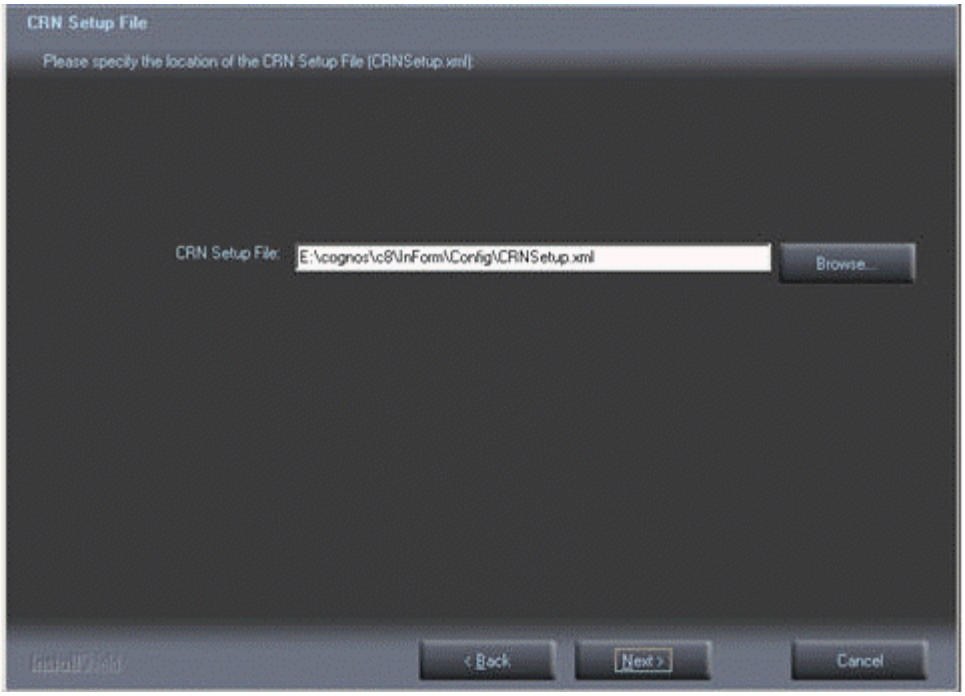
The Cognos 10 BI Welcome Screen appears.

4 Click **Next**.

The Cognos 10 BI Installation Location page appears.

5 Specify the path to the location of the Cognos 10 BI software.

The CRN Setup File page appears.



6 Browse to the CRNSetup.xml file that was created by the Cognos 10 BI Customization for InForm wizard, and click **Next**.

The Ready to Install the Program page appears.

7 Click **Install**.

The Setup Status page appears.

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

The Wizard Complete page appears.

8 Click **Finish**.

Configuring for SSL in the Cognos Configuration utility

Purpose	Updates Web Content URL and Gateway URI entries to configure for SSL.
Where to perform	Server where the Cognos 10 BI Gateway services are installed.

1 On the Cognos Gateway server, click **Start > All Programs > IBM Cognos 10 > 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*>/COGNOS10

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

For example:

https://www.sample.com:443/cognos10

3 Select **Environment** and update the **Gateway URI** entry:

https://<*servername*>.<*domainname*>:<*portnumber*>/cognos10/cgi-bin/cognosisapi.dll

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

For example:

https://www.sample.com:443/cognos10/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 Select **Actions > Start**.

The Cognos Configuration utility registers and starts the Cognos 10 BI Service.

7 Click **Close**, and close the Cognos Configuration utility window.

Starting the Cognos 10 BI servers

Purpose	Starts the Cognos 10 BI servers.
Where to perform	Server where the Cognos 10 BI service is installed.

After completing the Cognos 10 BI installation and configuration steps, you can start the Cognos 10 BI servers. If you have distributed Cognos 10 BI 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 10 BI service is installed, select **Start > All Programs > IBM Cognos 10 > 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 10 BI application tier components across multiple servers, perform this procedure on each presentation server.

1 Select **Launch** > **Reporting Administration**.

The Administration page appears.

2 Click the **Configuration** tab.

3 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** icon ( ).

6 Click the **Settings** tab

7 Select the **Environment entry (Advanced settings),** and click **Edit**.

8 Select **Override the settings acquired from the parent entry**, and do the following:

- Enter **portal.disableindexsearch** in the Parameter column**.**
- Enter **true** in the Value column.

9 Click **OK**.

10 Restart the Cognos service.

Enabling Authors group permissions

By default, the Authors group is restricted from including HTML items and user-defined SQL in reports. If you are licensed to develop Report Studio reports in a self-hosted environment, you can modify these restrictions in the Cognos Administration module:

- Enable the **Execute** and **Traverse** permissions for the Authors group for the following Report Studio capabilities:
  - User Defined SQL
  - HTML Items in Report

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.

Configuring 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.

Configuring the CSV settings for reports

1 Go to the Reporting and Analysis home page.

2 Click **Launch > Reporting Administration**.

The Administration page appears.

By default, the **Status** tab is selected.

3 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	,	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**.

Updating registry settings

Updating the ExternalLoginURL and ExternalLoginFailureURL registry key entries on the Cognos 10 BI servers

Purpose	Updates entries for the AuthenticationFilter registry key to enable Cognos 10 BI to use SSL.
Where to perform	Each server where a Cognos 10 BI component is installed.

On each Cognos 10 BI server, update the ExternalLoginURL and ExternalLoginFailureURL entries for the Oracle AuthenticationFilter registry key.

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

MyComputer\HKEY_LOCAL_MACHINE\SOFTWARE\PHASEFORWARD\AuthenticationFilter

2 Update the entries for **ExternalLoginURL**, **ExternalLoginFailureURL**. For each entry:

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

The Edit String dialog box appears.

b Enter the new value in the **Value Data** field and click **OK**. For more information, see the table that follows this procedure.

3 Exit the **Windows Registry Editor**.

4 Restart IIS.

Entry	What to specify in the Value Data field

ExternalLoginURL	Specify the URL to configure for HTTPS, and make sure that the <*portnumber*> value reflects the port number for HTTPS.
	`https://<servername>.<domainname>:<portnumber>/PFExternalLogin/ExternalLoginFrameset.html`
	Example:
	`https://www.sample.com:443/PFExternalLogin/ExternalLoginFrameset.html`

ExternalLoginFailure URL	Specify the URL to configure for HTTPS, and make sure that the <*portnumber*> value reflects the port number for HTTPS.
	`https://<servername>.<domainname>:<portnumber>/PFExternalLogin/ExternalLoginEscape.html`
	Example:
	`https://www.sample.com:443/PFExternalLogin/ExternalLoginEscape.html`

Updating the AuthenticationFilter DomainSuffix registry key on the Cognos 10 BI server

Purpose	Updates the AuthenticationFilter DomainSuffix registry key.
Where to perform	• Server where Cognos 10 BI Gateway services are installed. • Server for the InForm study.

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 InForm study machine and the Cognos 10 BI Gateway Services machine.

- You use proxy servers for the Cognos 10 BI Gateway Services machine and the InForm study 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 InForm server and the Cognos 10 BI Gateway Services software. If the FQDN for both installations ends in a common domain suffix such as **.net**, **.com**, **.org**, **.edu,** or **.gov** (with or without country name like **.uk** or **.au**), you do not need to update the DomainSuffix entry unless you use proxy servers.
- If the FQDN has just two levels. (For example: <*servername*>.com.)

Perform the DomainSuffix configuration on both the Cognos 10 BI Gateway Services machine and the InForm study server. Both machines *must* have identical AuthenticationFilter entries for DomainSuffix.

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

`MyComputer\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. Edit the entry:

- If you use proxy servers, or if the fully qualified domain name 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 InForm software and Cognos 10 BI 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 InForm server, restart the InForm Service.

Enabling communication among distributed Cognos 10 BI software components

If you install one or more Application Tier Components on a separate server, to insure that they can communicate with other Cognos 10 BI reporting components:

- Configure cryptographic properties.
- Specify all Content Manager URIs.
- Specify the Dispatcher URIs.
- Specify the Dispatcher URI for external applications.
- In a multiserver environment, on a server where Application Tier Components are installed but the Content Manager component is not installed, configure that server's Notification Store property to point to the Content Store database. This is described in the online Help notes in the Cognos Configuration utility.

For more information, see the Cognos 10 BI documentation.

Configuring the Cognos 10 BI Gateway server to run the Cognos Application Firewall

If all of your Cognos 10 BI servers are not on the same network or behind a system firewall, you should enable the Cognos Application Firewall (CAF) on the Cognos Gateway server.

To enable the Cognos Gateway server to use the CAF:

1 Connect to Cognos Gateway server.

2 Navigate to the Windows Start menu.

3 Select **All Programs > IBM Cognos 10 > Cognos Configuration**.

4 After the configuration is completely loaded, select **Local Configuration\Security\IBM Cognos Application Firewall** from the Explorer pane.

The Component Properties pane appears.

5 Set the property **Enable CAF validation?** to **True**.

6 For the property **Valid domains or hosts**, click on the pencil icon to the right of the Value cell.

The Valid domains or hosts page appears.

7 Click **Add**.

8 Fill in the hostnames or domain names that are valid for your environment.

The CAF will validate hostnames and domain names used or passed in a request, and not allow requests to pass unless the name is listed on this page. You can add as many hostnames or domain names as needed for your configuration or system topology.

9 Click **OK** when you have finished adding names.

10 Save the Cognos configuration.

11 Restart the Cognos service.

Creating PFWD and LDAP namespaces on the Cognos 10 BI server

Purpose	Creates the PFWD namespace and crnsysadmin user.
Where to perform	Server where the Cognos 10 BI core software is installed.

Run this procedure each time you run the InForm CRN wizard.

1 On the server where Cognos 10 BI is installed, select **Start > All Programs > Cognos 10 BI > Cognos Configuration**.

The Cognos Configuration window appears.

2 In the Security tree, right-click **Authentication**, and select **New resource > Namespace**.

The New Resource - Namespace dialog box appears.

3 Enter the following values:

- **Name**—PFWD (all uppercase)
- **Type**—LDAP

4 Click **OK**.

5 Complete the parameters as follows:

- **Namespace ID**—PFWD
- **Host and Port**—<*fullyqualifiedmachinename*>: <*LDAPServerPort*>

  (example port number: 389)
- **Base distinguished name**—Domain name for your environment. **Example:** If the network domain is pf.com, ou=PFWD,dc=pf,dc=com

  Note: Do not enter spaces after the commas between the parts of the domain.
- **User lookup**—(uid=${userID})

6 Select **File > Save**.

The Cognos Configuration utility validates the settings and saves the configuration.

7 When the checks are complete (all items are marked with a green check mark), click **Close**.

8 Click **Close**, and close the Cognos Configuration utility window.

Update the domain settings for Cognos-generated cookies

1 On the server where Cognos 10 BI is installed, select **Start > All Programs > IBM Cognos 10 > Cognos Configuration**.

The Cognos Configuration window appears.

2 Select Actions > Edit Global Configuration.

The Global Configuration window appears.

3 Select the General Tab.

4 Edit the **Cookie Settings > Domain** value to match the value in the **DomainSuffix** value in the **HHKEY_LOCAL_MACHINE\Software\OracleHS\AuthenticationFilter DomainSuffix** registry key.

For example, if the DomainSuffix value is **mycompany.com,** enter **.mycomany.com f**or the Domain value.

Note: You must change the Domain settings in the Cognos Configuration utility whenever the AuthenticationFilter DomainSuffix registry setting is changed.

CHAPTER 9

Configuring the study and reporting schemas

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Comparison of configuration scenarios

Characteristic	Different database instances	Single database instance
Oracle Streams	Oracle Streams is required. When you install the Reporting and Analysis module into a different database from the study, data is replicated using Oracle Streams. For more information about streams, streams operations, and monitoring, see the Oracle database documentation about streams.	Oracle Streams is not required, because there is no need to replicate study data.
Schema ownership	Different schema owners own study or reporting objects (and each schema is in a separate instance). For more information, see *Separate database instances for InForm and Cognos reporting software* (on page 28).	The study schema owner owns all study and reporting objects. Multiple reporting and study combinations may be put in the same study and reporting database instance.
Archive log mode	Running in archive log mode is required. For more information, see *Archive log mode in a multiple database environment* (on page 47).	Running in archive log mode is not required.

Study and reporting schemas in different database instances

Study schema—Different database instances

Study database parameters—Different database instances

The Reporting and Analysis module requires you to add or modify study database parameters. The following table shows the adjustments that must be made to these parameters when the Reporting and Analysis module is installed. All settings are necessary for both production and development servers.

Additionally, Oracle recommends that you review the **processes** and **sessions** parameters, which are not mandatory for the Reporting and Analysis installation.

For more information, see the Oracle database document, *Oracle Streams Recommendations*.

Parameter	Value	Comments
job_queue_processes	5 minimum	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)
log_archive_dest	Destination where the archive logs will be written	You must enter at least one destination. For more information, see the Oracle database document, *Oracle Reference Manual*.
log_archive_dest_state_1	ENABLE	This enables the archive log destination (log_archive_dest_1). You must enter a state for every destination. For more information, see the Oracle database document, *Oracle Reference Manual*.

Required study tablespace—Different database instances

The STRMADMIN_TS tablespace is required for Reporting and Analysis installation. To create the STRMADMIN_TS tablespace, use the following syntax:

```
CREATE TABLESPACE STRMADMIN_TS
DATAFILE '<path_to_reporting_data_file>' SIZE <initial_size>
AUTOEXTEND ON NEXT
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

Tablespace name	Initial size/ autoextend size needed	File extent size/file maximum size	Comments
STRMADMIN_TS	25M	Make the initial size 25 megabytes, set AUTOEXTEND on and set MAXSIZE to UNLIMITED.	The name STRMADMIN_TS is required for this tablespace. This tablespace is used to hold spillover from streams queues into streams_queue_tables. Streams queue tables reside in this tablespace.

Optional study tablespaces—Different database instances

The following table also lists optional tablespaces that you can create. The optional tablespaces allow for the separation of reporting objects, logs, and indexes. Oracle recommends that you create these tablespaces. If you do not create the optional tablespaces, space must be available in existing tablespaces.

Additionally, consider the following optional tablespaces.

- The SYSAUX tablespace is used to store LOGMNR objects by default in Oracle. Therefore, you do not need to create a tablespace for Logminer objects.

  The SYSAUX tablespace size and growth are influenced by a number of Oracle tools. The Streams capture process writes checkpoint information, among other things, to this tablespace. The checkpoint information can grow quickly depending on the settings that affect checkpoint retention and frequency. These settings can be adjusted as necessary.

  The checkpoint retention time is an attribute of the capture process and can be changed with the DBMS_CAPTURE_ADM.ALTER_CAPTURE Oracle-supplied procedure. The default value provided by Oracle for the capture_ckpnt_ret_time variable is 60 days. The checkpoint frequency is a capture process parameter and is called _CHECKPOINT_FREQUENCY. This can be changed with the DBMS_CAPTURE_ADM.SET_PARAMETER procedure. See the Oracle *PLSQL Packages and Types Reference* and *Oracle Concepts and Administration* manuals for more information.

- The UNDO tablespace size and growth are influenced by the UNDO_RETENTION database parameter setting and Streams needs in addition to normal InForm reporting operations. Oracle requires that UNDO_RETENTION be set to at least 900.

  For information about the UNDO_RETENTION parameter and UNDO tablespace, see the Oracle database document, *Oracle Administrators Guide*.

Note: The names of tablespaces in the study and reporting databases must be identical.

Tablespace name	Initial size/ Autoextend size needed	File extent size/ file maximum size	Comments
Chosen by customer **Example:** <*studyname*>_table_ts	Calculate initial size at: (2 * pf_comment table size) + (2 * pf_controldata table size) + (1 * pf_resourcedata table size) + (1 * pf_rules table size).	Chosen by customer. The size of these tables grows as the study size grows.	Holds study tables used for reporting. Corresponds to the variable trial_table_ts variable in the configdiffdb.sql file.

Tablespace name	Initial size/ Autoextend size needed	File extent size/ file maximum size	Comments
Chosen by customer **Example:** <*studyname*>_index_ts	Calculate initial size at: (2 * pf_comment primary key index size) + (2 * pf_controldata primary key index size) + (1 * pf_resourcedata primary key index size) + (1 * pf_rules primary key index size).	Chosen by customer. The size of these tables grows as the study size grows.	Holds study table indexes that are used for reporting. Corresponds to the variable trial_index_ts variable in the configdiffdb.sql file.

rptinstall user for studies—Different database instances

Purpose	Creates the **rptinstall** user for the study schema. The rptinstall user has DBA privileges in the study database and is used for install and uninstall operations. This account is not used for study operations and can be locked when not in use. You can drop the rptinstall user after installation is finished. However, you must re-create it before attempting any further installation or uninstallation activities.
Where to perform	Folder for the Reporting and Analysis module files, for example, e:\PF\InForm Reporting

1 Open a Command Prompt window.

2 Change to the directory where the Reporting and Analysis files were installed by the Reporting DB wizard.

3 Log on to the study database with a user that has **sysdba** privileges. Make sure that the connection is made with the **as sysdba** clause.

4 Run this command:

```
create user rptinstall identified by <dbauser_study_password> default
tablespace <tablespace_name> temporary tablespace <tablespace_name>
```

<*dbauser_study_password*>—The password for rptinstall, the dbauser for the study. This password is case-sensitive.

<*tablespace_name*>—A valid tablespace name in the database. Oracle recommends that you do not use the SYSTEM tablespace for the default tablespace.

Note: The default tablespace does not require additional room for objects, because the rptinstall user does not own objects.

5 Type the following at the SQL*Plus prompt:

```
@grant_dba_privs rptinstall
```

Archive log mode verification in the study database—Different database instances

Purpose	Verifies that the database log mode is Archive for an environment where the study and reporting schemas are in different database instances.
Where to perform	Database instance for the study schema.

You must run the InForm study database in archivelog mode. This is a requirement for Oracle Streams. To determine if the InForm database is being run in archivelog mode:

1 Log on to a privileged Oracle account, for example, **sys**, using SQL*Plus.

2 Run the following command:

```
archive log list
```

You should see the following values:

- **database log mode—Archive**.
- **automatic archival—Enabled**.

Reporting variable configuration—Different database instances

To configure reporting variables, you edit the **configdiffdb.sql** script. The installation and uninstallation scripts use the configdiffdb.sql file for user name, password, tablespace, and connection information. This file is located in the folder where the reporting software is located, for example, PF\InForm Reporting\DBOra.

The **configdiffdb.sql** script includes predefined and user-defined variables. You should:

- *Never* change predefined variables.
- Evaluate each user-defined variable, and change the values as needed to reflect your environment. For more information, see the table below.

Note: When you are first configuring the InForm environment to work with the Cognos 10 BI software, you configure all of the reporting variables described in this section. When you set up the Reporting and Analysis module for each study, you reconfigure the study-specific variables for that study. When you set up the file for a specific study, rename the file **ConfigDiffDB-<studyname>.sql**. For information about configuring study-specific reporting variables, see the *Study and Reporting Setup Guide*.

Reporting variables in configdiffdb.sql

I/S	Variable	Value	Comments
I=Set once for the database instance; S=Set for each study; P= Do not change.			
I	trialdb_tnsnames_alias	Tnsnames alias for the study database.	Used for connection to the study database. Also used as a part of the PUBLIC database link.
P	trialdbstring	@&&trialdb_tnsnames_alias	Preset variable. Do not change. Used for connection to the study database.
S	trial_schema_owner	InForm study schema owner.	Oracle user name of the study schema owner in the study database.
S	rep_proxy_user	New user. Prepend RP to the InForm study schema owner.	Oracle user name in the study database that serves as a proxy user for reporting database connections.
I	trial_to_rep_dblink _name	Global name of the reporting database.	Name of all database links in the study database. Connect to the reporting database and run the command: **Select global_name from global_name;** Use the value returned from this command for this variable.
P	trial_dblink_name_select	@&&trial_to_rep_dblink _name	Preset variable. Do not change. Used for connection to remote objects in the reporting database.
I	repdb_tnsnames_alias	Tnsnames alias for the reporting database.	Used for connection to the reporting database. Also used as a part of the PUBLIC database link.
P	repdbstring	@&&repdb_tnsnames_alias	Preset variable. Do not change. Used for connection to the reporting database.
P	rep_schema_owner	&&trial_schema_ow	Preset variable. Do not change.
I	rep_to_trial_dblink _name	Global name of study database.	Name of all database links in the reporting database. Connect to the study database and run the command: **Select global_name from global_name**; Use the value returned from this command for this variable.

I/S	Variable	Value	Comments
I=Set once for the database instance; S=Set for each study; P= Do not change.			
P	rep_dblink_name_select	@&&rep_to_trial_dblink_name	Preset variable. Do not change. Used for connection to remote objects in the study database.

Reporting schema—Different database instances

You can install the reporting schema in a separate database instance from the InForm study schema to support a study production (multi-user) environment.

Note: When the study and reporting schemas are in separate database instances/schemas, it is necessary to replicate study data in reporting with Oracle Streams.

Required reporting database parameters—Different database instances

The database parameters listed below are required for the Reporting and Analysis installation.

Additionally, Oracle recommends that you review the **processes** and **sessions** parameters, which are not mandatory for the Reporting and Analysis installation.

For more information, see the Oracle database document, *Oracle Streams Recommendations*.

Parameter	Value	Comments
compatible	11.2.0 or 10.2.0	
cursor_sharing	Exact	
db_block_size	16384	After the instance is created, this cannot be changed.
db_file_multiblock_read_count	16	
db_cache_size See **Note 1**	0	This is automatically managed by Oracle when it is set to zero and sga_target is specified.
db_files	Database dependent.	
global_names	TRUE	
job_queue_processes	2 minimum	Two minimum recommended by Oracle for Streams.
open_cursors	150	
open_links	Four minimum	
optimizer_features_enable	11.2.0.1 or 10.2.0.1	

Parameter	Value	Comments
parallel_max_servers	Two for each apply.	Two are required for each apply process.
pga_aggregate_target	300M (dependent on how much memory is available for Oracle)	
processes	150	
remote_login_password_file	exclusive	
session_cached_cursors	150	
sga_target See **Note 2**	1000M	This parameter manages memory for Shared_pool_size, db_cache_size, streams_pool_size, large_pool_size, and java_pool_size. This parameter enables Automatic Shared Memory.
shared_pool_reserved_size	5M	
shared_pool_size See **Note 1**	0	This is automatically managed by Oracle when it is set to zero and sga_target is specified.
skip_unusable_indexes	true	Required to run refresh jobs.
statistics_level	typical	This is necessary for Automatic Shared Memory Management (ASMM) to function.
streams_pool_size See **Note 1**	200M	This is necessary for Automatic Shared Memory Management (ASMM) to function.
timed_statistics	TRUE	Recommended by Oracle for collecting elapsed time information for Streams.
undo_retention	900 (minimum value)	For more information, see the Oracle *Streams Recommended Configuration* document on Metalink (reference below).
workarea_size_policy	auto	
_job_queue_interval	1	Not required, but recommended by Oracle for Streams (Note 418755.1).
_optimizer_cost_based_transformation	Off	
sec_case_sensitive_logon	False	Oracle 11g only.
_push_join_predicate	False	Oracle 11g only.
deferred_segment_creation	False	Oracle 11g only.
parallel_max_servers	3	

Note 1: These parameters can be changed if desired. Specifying a value other than zero in for these parameters enforces a minimum amount of memory that sga_target uses. The minimum is deducted from the total memory that sga_target can dynamically allocate across the five memory settings it manages.

Note 2: Java_pool_size and large_pool_size are also managed by sga_target. They are not specified in a parameter list because they are not needed for the InForm application.

Required reporting tablespace—Different database instances

The STRMADMIN_TS tablespace is required for Reporting and Analysis installation. To create the STRMADMIN_TS tablespace, use the following syntax:

```
CREATE TABLESPACE STRMADMIN_TS
DATAFILE '<path_to_reporting_data_file>' SIZE <initial_size>
AUTOEXTEND ON NEXT
EXTENT MANAGEMENT LOCAL AUTOALLOCATE;
```

Tablespace name	Initial size/ autoextend size needed	File extent size/file maximum size	Comments
STRMADMIN_TS	25M	Make the initial size 25 megabytes, set AUTOEXTEND on and set MAXSIZE to UNLIMITED.	The name STRMADMIN_TS is required for this tablespace. This tablespace is used to hold spillover from streams queues into streams_queue_tables. Streams queue tables reside in this tablespace.

Optional reporting tablespaces—Different database instances

The following table lists optional tablespaces that you can create. The optional tablespaces allow for the separation of reporting objects, logs, and indexes. Oracle recommends that you create these tablespaces. If you do not create the optional tablespaces, space must be available in existing tablespaces.

Additionally, consider the following optional tablespaces.

- The SYSAUX tablespace is used to store LOGMNR objects by default in Oracle. Therefore, you do not need to create a tablespace for Logminer objects.
- The UNDO tablespace size and growth are influenced by the UNDO_RETENTION database parameter setting and Streams needs in addition to normal InForm reporting operations. Oracle requires that UNDO_RETENTION be set to at least 900. For more information, see the Oracle database document, *Oracle Streams Recommendations*.

  For information about the UNDO_RETENTION parameter and UNDO tablespace, see the Oracle database document, *Oracle Administrators Guide*.

Note: The names of tablespaces in the study and reporting databases must be identical.

Tablespace name	Initial size/ autoextend size needed	File extent size/file maximum size	Comments
User-defined **Example:** <*studyname*>_index_ts	One-half the size of the study	User-defined. The size of the indexes grows as the study indexes grow.	Used to store indexes that are created on reporting tables. Corresponds to the rep_index_ts variable in the configdiffdb.sql file.
User-defined **Example:** <*studyname*>_table_ts	Size of the study	User-defined. The size of the reporting base tables grows as the study tables grow.	Used to store reporting tables Corresponds to the rep_table_ts variable in the configdiffdb.sql file.

rptinstall user for reports—Different database instances

Purpose	Creates the **rptinstall** user for the reporting schema. The rptinstall user has DBA privileges in the reporting database and is used for install and uninstall operations. This account is not used for reporting operations and may be locked when not in use. You can drop the rptinstall user after installation is finished. However, you must re-create it before attempting any further installation or uninstallation activities.
Where to perform	Folder for the Reporting and Analysis module files, for example, e:\PF\InForm Reporting

1 Open a Command Prompt window.

2 Change to the directory where the Reporting and Analysis files were installed by the Reporting DB wizard.

3 Log on to the reporting database with a user that has **sysdba** privileges. Make sure that the connection is made with the **as sysdba** clause.

4 Run this command:

create user rptinstall identified by <*dbauser_rep_password***> default tablespace <***tablespace_name***> temporary tablespace <***tablespace_name***>**

<*dbauser_rep_password*>—The password for rptinstall, the dbauser for the reporting schema. This password is case-sensitive.

<*tablespace_name*>—A valid tablespace name in the database. Oracle recommends that you do not use the SYSTEM tablespace for the default tablespace.

Note: The default tablespace does not require additional room for objects, because the rptinstall user does not own objects.

5 Type the following at the SQL*Plus prompt:

```
@grant_dba_privs rptinstall
```

Communication between the study and reporting databases—Different database instances

The InForm study database and reporting database communicate through database links. Entries in the tnsnames.ora files on the study database and reporting database servers are required. Create tnsnames aliases:

- On the reporting database server to connect to the study instance on the study server.
- On the study database server to connect to the reporting instance on the reporting server.

CHAPTER 10

Configuring client computers

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Required and recommended browser settings for Internet Explorer

Specifying the preferred browser language

1 In Internet Explorer, select **Tools > Internet Options > Languages**.

The Language Preference dialog box appears.

2 To add another language, click **Add**.

The Add Language dialog box appears.

3 Select a language, and click **OK**.

4 Move the language to the top of the list by clicking **Move Up**, and click **OK**.

5 Click **OK**.

Enabling viewing reports and data listings in Microsoft Excel format

Enabling Automatic prompting for downloads

1 In Internet Explorer, select **Tools > Internet Options > Security > Custom Level**.

The Security Settings dialog box appears.

2 In the **Downloads** section, under **Automatic prompting for file downloads**, click **Enable**.

3 In the Security Settings dialog box, click **OK**.

4 In the Internet Options dialog box, click **OK**.

Configuring trusted sites

1 In Internet Explorer, select **Tools > Internet Options > Security > Trusted Sites > Sites**.

The Security Settings dialog box appears.

2 In the **Add this web site to the zone** field, type **https://*.webcrf.net**, and click **Add**.

3 Click **OK**.

Setting the ForceShellExecute registry entry

To ensure that HTTP links are handled correctly from Microsoft Excel, add a DWORD entry called ForceShellExecute to the registry in the following key:

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Office\9.0\Common\Internet
"ForceShellExecute"=dword:00000001

If the ForceShellExecute entry already exists, change its value from 0 to 1.

Configuring pop-up blocking

You must configure the pop-up blocking functionality to allow pop-ups from the InForm application. This configuration applies whether pop-ups are enabled or disabled.

1 In Internet Explorer, select **Tools > Pop-up Blocker**.

2 If the Pop-up Blocker command is disabled, click **Turn On pop-up Blocker**.

3 Click **Tools > Pop-up Blocker > Pop-up Blocker Settings**.

The Pop-up Blocker Settings dialog box appears.

4 In the **Address of Web site to allow** field, type the name of the domain used for accessing the study. Use the format *.<*domain_name*>, for example, *.pf.com.

5 Click **Add**.

6 Click **Close**.

Preventing automatic password completion

To comply with federal regulations that govern electronic data capture in a clinical study, your browser cannot be set to complete user names and passwords on forms.

1 In Internet Explorer, select **Tools > Internet Options > Content**.

2 In the Personal information section, click **AutoComplete**.

The AutoComplete Settings dialog box appears.

3 In the **Use AutoComplete for** section, deselect the **User names and passwords on forms** checkbox.

4 In the **Clear AutoComplete history** section, click **Clear Passwords**.

5 Click **OK** in the AutoComplete Settings and Internet Options dialog boxes.

Specifying whether to save encrypted and temp files

1 In Internet Explorer, select **Tools > Internet Options > Advanced**.

2 Scroll to the **Security** section.

3 Specify the following options:

- **Do Not Save Encrypted Pages to Disk**—Not selected. This option allows the system to save encrypted pages to disk. Unless the option is deselected, you cannot open reports in Microsoft Excel format. Required by Oracle.
- **Empty Temporary Internet File Folder When Browser is Closed**—Selected. This option tells the system to delete temporary files when the browser is closed. Recommended by Oracle.

4 Click **OK**.

Optimizing performance

1 In Internet Explorer, select **Tools > Internet Options**.

2 In the Temporary Internet files group, click **Settings**.

3 In the **Check for newer versions of stored pages** group, click **Automatically**.

4 In the **Amount of disk space to use** field, select 6 MB.

5 Click **OK**.

Setting HTTP and SSL options for performance

If a browser machine is not configured to take advantage of HTTP 1.1 or SSL caching, the InForm login window displays messages that alert users to either or both conditions. For example:

```
Your browser or infrastructure does not support the following optimal
settings for InForm:
Configure your browser to support the HTTP 1.1 protocol.
```

If you receive a performance setting alert:

1 In Internet Explorer, select **Tools > Internet Options > Advanced**.

2 Scroll to the **HTTP 1.1** section, and select **Use HTTP 1.1**.

3 Scroll to the **Security** section, and select **Use SSL 2.0** and **Use SSL 3.0**.

4 Click **OK**.

Printing background graphics

1 In Internet Explorer, select **Tools > Internet Options > Advanced**.

2 Scroll to the **Printing** section.

3 Select **Background Colors and Images**.

4 Click **OK**.

Modifying security settings

1 In Internet Explorer, select **Tools > Internet Options > Security**.

2 Select the **Internet** type of connection.

3 Click **Custom Level**.

4 Set the following options to **Enable**:

- **Miscellaneous** section—**Allow META REFRESH.**
- **Scripting** section—**Active scripting.**

5 Click **OK**.

6 In the Internet Options dialog box, select the **Privacy** tab.

7 Move the slider to the bottom to select **Accept All Cookies**.

8 Click **OK**.

Setting up tabbed browsing for Internet Explorer 7.0

If you are using Internet Explorer 7.0, to make sure that the emailing of Cognos 10 BI reports works as it does with Internet Explorer 6.0 Service Pack 1, you must set up tabbed browsing by selecting or deselecting the **Enable Tabbed Browsing** option.

Selecting the Enable Tabbed Browsing option

1 In Internet Explorer, select **Tools > Internet Explorer Options**.

2 In the **Tabs** section, select **Settings**.

3 Select **Enable Tabbed Browsing**.

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

Deselecting the Enable Tabbed Browsing option

1 Select **Tools > Internet Explorer Options > Advanced**, and deselect **Reuse windows for launching shortcuts**.

2 Click **Apply**.

3 Select the **General** tab.

4 In the **Tabs** section, select **Settings**.

5 Deselect **Enable Tabbed Browsing**.

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

Other Internet Explorer behaviors to consider

Using large fonts

The InForm application does not provide special support for displaying large fonts. If you run the InForm application with the Windows display configured to use large fonts, some of the text and buttons might overlap.

Authentication and browser sessions

According to standard Internet Explorer behavior, multiple windows are considered to be part of the same session. Although this may vary slightly according to the versions of Internet Explorer, windows may be part of the same session if they are created or launched in the following ways:

- Pop-ups are launched from another window in the session.
- The **File > New > Window** command or **Ctrl+N** is used to create new windows.

An InForm session includes all Internet Explorer windows from the same session. To prevent someone from logging in to an unauthorized session, users must exit InForm sessions in one of the following ways:

- Explicitly log out of the InForm application.
- Close all browser windows within the session.

If a user does not log out of the InForm application or does not close all browser windows in the session, the user (or another user at the same computer) is not asked to re-authenticate when launching the InForm application again, and security could be compromised.

Required and recommended browser settings for Apple Safari

Specifying the preferred browser language

1 Select the **Apple menu > System Preferences**.

2 Click **International**.

3 Drag your preferred language to the top of the **Languages** list.

4 If Safari is open, quit, and restart it.

Configuring pop-up blocking

You must configure the pop-up blocking functionality to allow pop-ups from the InForm application.

1 In the Safari browser, select **Safari > Preferences**.

2 Click **Security**.

3 In the Web content section, deselect the Block pop-up windows checkbox.

Preventing automatic password completion

1 In the Safari browser, select **Safari > Preferences**.

2 Click **AutoFill**.

3 Deselect the User names and passwords check box.

Modifying security settings

1 In the Safari browser, select **Safari > Preferences**.

2 Click **Security**.

3 In the Accept Cookies section, select Always.

Required and recommended browser settings for Firefox

Specifying the preferred browser language

1 In Firefox, select **Tools > Options.**

The Options dialog box appears.

2 Select the Content tab.

3 In the Language section, click **Choose**.

4 If the language you want is not in the list, click Add.

The Add Language dialog box appears.

5 Select a language, from the drop-down list and click **Add**.

6 Move the language to the top of the list by clicking **Move Up**, and click **OK**.

7 Click **OK**.

Configuring pop-up blocking

You must configure the pop-up blocking functionality to allow pop-ups from the InForm application. This configuration applies whether pop-ups are enabled or disabled.

1 In Firefox, select **Tools > Options.**

The Options dialog box appears.

2 Select the Content tab.

3 If the Pop-up Blocker command is disabled, click the checkbox to enable it..

4 Click the Exceptions button.

5 The Allowed sites - Pop-ups dialog box appears.

6 In the **Address of Web site** field, type the name of the domain used for accessing the study. Use the format *.<*domain_name*>, for example, *.pf.com.

7 Click **Allow**.

8 Click **Close**.

Preventing stored password use

To comply with federal regulations that govern electronic data capture in a clinical study, your browser cannot be set to Remember passwords for sites and Use a master password.

1 In Firefox, select **Tools > Options.**

The Options dialog box appears.

2 Select the Security tab.

3 In the Passwords section, deselect

- Remember passwords for sites.
- Use a master password.

4 Click **OK**.

Setting the SSL option for performance

If a browser machine is not configured to take advantage of SSL caching, the InForm login window displays a message that alert you. For example:

```
Your browser or infrastructure does not support the following optimal
settings for InForm:
Configure your browser to support the SSL caching.
```

If you receive this performance setting alert:

1 In Firefox, select **Tools > Options.**

2 The Options dialog box appears.

3 Select the Advanced tab.

4 In the Protocols section, select Use SSL 3.0.

5 Click **OK**.

Modifying security settings

1 In Firefox, select **Tools > Options.**

2 The Options dialog box appears.

3 Select the Privacy tab.

4 In the History section, select:

- Accept cookies from sites.
- Accept third-party cookies.

5 Click **OK**.

CHAPTER 11

Uninstalling software components

In this chapter

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About uninstalling software components

Uninstall the InForm and Cognos 10 BI software in the following order:

1 Cognos 10 BI software.

2 Oracle Directory Server.

3 InForm software.

For an uninstalling checklist, see Checklist—Uninstalling software components.

Note: This section describes how to uninstall the core InForm and Cognos 10 BI software and the customizations for Cognos Reporting. For information about removing a study and removing the Reporting and Analysis module for a study, see the ***Study and Reporting Setup Guide***

Uninstalling the Cognos 10 BI software

The Cognos Uninstall Wizard enables you to uninstall the Cognos 10 BI core.

1 On the server that hosts the Cognos 10 BI software, select **Start > All Programs > Cognos 10 BI > Uninstall Cognos 10 BI Uninstall Cognos 10 BI**.

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 uninstall is complete, click **Finish**.

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

Uninstalling the InForm software

1 Stop all InForm servers and studies.

2 Stop the InForm Service and the InForm Sync Service.

3 Select **Start > Control Panel > Add or Remove Programs**.

4 Select **Oracle InForm 5.5**, and click **Remove**.

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.

APPENDIX A

Troubleshooting

In this appendix

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Troubleshooting software installation

Insufficient software installed

If you get a warning about missing software during the InForm software installation, install all the software that is listed in the Requirements Not Met window, and restart the installation.

InForm login page not in expected language

Setting the preferred browser language is an optional client configuration step. However, if you do not set the preferred browser language, and the language is not English or Japanese, the InForm login page appears in the language of the product locale.

To change the locale in which the login page appears, set the preferred browser language. For more information, see the *Installation Guide*.

Unable to return to previous page after reauthenticating

If a user's inactivity or reauthentication period expires, the InForm application returns the user to the last-used page in the session after reauthenticating.

However, if the client computer is not configured to allow pop-ups, the InForm application does not return the user to the last-used page in the session, and the user must restart the session from the default Home page.

To correct this, configure the client computer to allow pop-ups. For more information, see the *Installation Guide*.

Oracle MTS configuration is invalid

If the Oracle registry settings are not correct, you may get the following InForm core installer errors during the installation process:

- Oracle MTS configuration is invalid.
- Registry Settings: INVALID.
- XA Views: INVALID.

Possible solutions:

- If the installation wizard is still open:
  1. Click **Back** to display the **Database Configuration** window.
  2. Select the **Prep Oracle** checkbox.
  3. Click **Next** to proceed.

  This runs the informprepora.vbs and mtsora102.vbs scripts.
- If the installation window has been closed, run mtsora102.vbs from the command line. The mtsora102.vbs file is in the InstallSupport folder of the InForm installation image.

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.vbs 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 SYS on a machine with xaview.sql.

3 Run xaview.sql against your InForm core instance.

4 Run mtsora102.vbs 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 InForm installation wizard.
- Run the informprepora.vbs script located in the InstallSupport folder of the InForm installation image.

Troubleshooting study and reporting setup

Final InForm configuration fails

The InForm installation process must be able to access the installation source drive. If an installation CD is removed from the drive during installation, or if the network goes down and the UNC path cannot be accessed, a message appears.

Execute the final configuration step manually:

1 Place the InForm installation CD in the CD-ROM drive, or verify the network connections.

2 Open a Command Prompt window, and type:

```
Run <path>\setup.exe InFormFinalConfig
```

Errors when removing a reporting schema

If you run the **deinstall_reporting_diffdb.sql** script to remove a reporting schema, and you receive the message **Reporting deinstallation aborted**, the uninstall fails and no reporting objects are removed.

The probable cause is a problem with the settings in the **configdiffdb.sql** file.

Check the configdiffdb.sql file to make sure that the settings are correct for the reporting schema that you want to remove. In particular, the uninstall scripts check for the existence of a tablespace. If the configdiffdb.sql file contains variables that refer to nonexistent tablespaces, update the file and rerun the uninstall script.

Reporting and Analysis database setup fails with duplicate column name error

If the setup of the reporting database fails with an ORA-00957: duplicate column name error, the study design might include an item RefName that is used for key column names in CV views. The key column names used for CV views are reserved. To resolve the problem, update the study design so that it does not include any reserved words as item RefNames.

The following names are reserved and cannot be used as RefNames:

- CD_COUNT
- AFROWID
- SUBJECTID
- SITEID
- STUDYVERSIONID
- SUBJECTVISITID
- SUBJECTVISITREV
- VISITID
- VISITINDEX
- FORMID
- FORMREV
- FORMINDEX
- SUBJECTINITIALS
- SITEMNEMONIC
- VISITMNEMONIC
- FORMMNEMONIC
- VISITORDER
- SITENAME
- SITECOUNTRY
- SECTIONID
- ITEMSETID
- ITEMSETINDEX
- ITEMSETIDX
- DELETEDITEM
- DELETEDFORM
- FORMIDX

Performance Options setting in System Properties

If the 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 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**.

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

Note: This issue should occur only in a development environment. In a production environment, the InForm application software and database are normally on different servers. When the 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**.

APPENDIX B

Command and script reference

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admindb

Purpose

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

Location

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

Usage

admindb *[flags] [connection string] [pfdbadmin password] [informadmin UID] [informadmin password] [pfdbadmin UID]*

Flag	Description
–NOPFMQ	When run with this flag, the AdminDB command does not create PFMQ tables or configure PFMQ.
– PFMQCFG	When run with this flag, the AdminDB command configures this AdminDB as the PFMQ messagestore /infostore. Note that if you choose not to create the AdminDB at the time of installation, you should typically use the -PFMQCFG flag when you run the admindb command to create the AdminDB schema manually. However, when the PFMQ data is to be stored in a separate schema (for a CIS installation, for example), you should use the -NOPFMQ flag.

Example

admindb -NOPFMQ trial1 pfdbadmin informadmin informadmin pfdabdmin

configandcheckdiffdb.sql

Purpose

Checks the variable settings in an environment where the study and reporting databases are in different database instances.

Location

Folder where the reporting software is located, for example, \\Oracle\InForm Reporting\DBOra.

Usage

@configandcheckdiffdb

Notes

Run logged on to SQL*Plus with /nolog.

If the script passes with no errors, the variables are correct. If there is an error, make corrections and then rerun the script. Do not proceed with the installation until errors have been resolved.

configdiffdb.sql

Purpose

Contains reporting variables in an environment where the study and reporting databases are in different database instances. The reporting installation and uninstallation scripts use the configdiffdb.sql file for user name, password, tablespace, and connection information.

Location

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

Usage

@configdiffdb

Notes

Before running the configdiffdb.sql file, evaluate each user-defined variable, and change the values as needed to reflect your environment.

For more information, see ***Reporting variable configuration—Different database instances*** (on page 119).

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 InForm database installation and administration scripts are designed to be run using the InForm Application Server. The scripts can also be run from the Oracle database home on an 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.

deinstall_reporting_diffdb.sql

Purpose

Removes a single reporting schema when the study and reporting schemas are located in different database instances. This script:

- Removes all components associated with the Reporting and Analysis module for a single study and reporting schema combination.
- Uninstalls only one reporting schema at a time. To uninstall multiple reporting schemas, you can run the script as many times as necessary.
- Does not remove the underlying reporting infrastructure, including reporting tablespaces.

Location

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

Usage

@deinstall_reporting_diffdb

Notes

Run from SQL*Plus with /nolog.

Before running the deinstall_reporting_diffdb.sql script:

- Review the parameters in the configdiffdb.sql file to make sure that they contain the same values that you used to install the reporting schema. For more information, see ***configdiffdb.sql*** (on page 150).
- Stop 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 rptsinstall

Notes

Log on to the study database as SYSDBA.

The name of the DBA user must be **rptinstall**.

grant_user_privs.sql

Purpose

Grants 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 pfst55uid

Notes

Run from SQL*Plus with /nolog.

Connect to the study database as a user with the privilege to grant user database privileges, for example SYS.

The script produces a log called grant_user_privs.log.

ImportUtility

Purpose

Securely import reporting content you export using Cognos commands to a new instance of the InForm Reporting server.

Location

The InForm application server folder on the 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 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 InForm server uses to communicate with the Cognos 10 BI server.

  This Cognos 10 BI parameter is set in the InForm CRN 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. 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.

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

informprepora.vbs

Purpose

Creates the pfdbadmin user if you did not set it up during the InForm core software installation by selecting the **Prep Oracle** checkbox.

Location

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

Usage

InFormPrepORA.vbs <*oracle_connection_string*> <*password_for_sys_user*> <*pfadbadmin_userid*> <*pfdbadmin_password*>

Example

informprepora trialdb oracle pfdbadmin pfdbadmin

Notes

Set scripting to cscript to suppress popup messages. Type:

```
cscript //H:cscript
```

install_reporting_diffdb.sql

Purpose

Installs the Reporting and Analysis module in an environment where the study and reporting databases are in different database instances.

Location

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

Usage

@install_reporting_diffdb.sql

Notes

Run from SQL*Plus as /nolog.

Before running the installation script, make sure that you have updated the study-specific variable settings with the configdiffdb.sql script. For more information, see ***configdiffdb.sql*** (on page 150).

mtsora102.vbs

Purpose

Sets up Oracle XA transaction support. During the InForm core software installation, if you check the Prep Oracle checkbox, the installation process sets up Oracle XA transaction support. If you do not set up Oracle XA transaction support during the installation, the mtsora102.vbs script enables you to set it up manually, during or after the Oracle installation.

The mtsora102.vbs file does the following:

1 Runs the XAVIEW.sql script as SYS 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
```

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\DBOra folder.

Usage

MTSORA102.vbs <*oracle_connection_string*> <*user_sys_password*> <*oracle_client_home_key*>

Example

cscript mtsora102.vbs dev1 syspwd KEY_OraClient11g_CLIENT1

Notes

When setting up Oracle XA transaction support manually, run both the mtsora102.vbs script and the oramtsadmin.sql script. For more information, see ***oramtsadmin.sql*** (on page 162).

Set scripting to **cscript** to suppress popup messages. Type:

```
cscript //H:cscript
```

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. You need to run oramtsadmin.sql only if you do not set up Oracle XA transaction support during installation of the InForm core software by selecting the **Prep Oracle** checkbox. If you set up Oracle XA transaction support manually, run oramtsadmin.sql after you run the mtsora102.vbs script.

Location

%ORACLE_CLIENT_HOME%\oramts\admin folder

Usage

@oramtsadmin

Notes

Run as the SYS user as SYSDBA.

Run the script against all Oracle instances connected to the InForm application server.

pfadmin

Purpose

Sets up the InForm server environment. The parameters are stored in the registry. Therefore, you need local administrator privileges to run the utility.

Location

\InForm\Bin folder in the InForm installation.

Usage

pfadmin [CHECKREG | CONFIG | CREATEREPORTINGMODEL | HELP | KILLSERVER | PING | RECREATEREVIEWSCHEMA | REMOVE | RECREATEREPORTINGSCHEMA | SETSERVER | SETUP | SETLANGUAGE | START | STOP | UNINSTALL | VIEW]

pfadmin command options	
Option	Purpose and Syntax
CHECKREG [/Del] [/DelAll]	Displays the current 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.

pfadmin command options	
Option	Purpose and Syntax
CONFIG Service [/AdminDB *DBServer UID PID*] | [/AdminDSN *DsnName UID PID*] | [/*AdminDN AdminPwd*] [/PfUser *Password*] | [/SysDBA *UID PID*]	Configures an existing service. • [/AdminDB *DBServer UID PID* [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 UID PID*]—Creates the ODBC DSN 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. • [/PfUser *Password*]—Creates the PfUser_*computername* account during the InForm software installation. The account is for Microsoft MTS packages used by 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 *UID PID*]—Sets the InForm Service DBA user name and password. The default username and password is pfdbadmin, which is set during the InForm installation. You can use this command to change the pfdbadmin password as needed. If you want to change the InForm Service DBA name, modify the provided SQL script InFormPrepORA.sql with the new user name and password, then run the script as SYS. After running the script, use this command option to configure the InForm Service to use the new 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.
CONFIG Server *ServerName* [Automatic|Manual]	Configures the startup mode for an existing server as either Automatic or Manual.

pfadmin command options	
Option	Purpose and Syntax
CONFIG Trial *TrialName* [Automatic | Manual] | [/TriDSN *DSN UID PID*] | [/RndDSN *DSN*] | [/RndDSN *DSN UID PID*] | [/Rnd [*MDBFilePath*]] | [/Rnd [*MDBFilePath*] *UID PID*] | [/Host *ServerName*] |	Configures an existing study. • [Automatic | Manual]—Configures the study startup mode. • [/TriDSN *DSN UID PID*]—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 randomization source dataset name. Use when setting up a Microsoft randomization source database. • [/RndDSN *DSN UID PID*]—Configures the study randomization source dataset name. Use when setting up an Oracle randomization source database. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/Rnd [*MDBFilePath*]]—Creates a study randomization source dataset name to use the given Microsoft Access database file. • [/Rnd [*MDBFilePath*] *UID PID*]—Creates a study randomization source dataset name to use the given Oracle database file. Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters. • [/Host *ServerName*]—Moves the study from current host server to another server in the InForm Service.
CONFIG CDD *TrialName* [Enable | Disable] | [*DSN* [Active | Inactive]] | [*DSN StudyLocale*] | [*DSN UID PID*]	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. • [*DSN UID PID*]—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.
CREATEREPORTINGMODEL *TrialName*	Creates the Reporting model from scratch.
HELP	Lists all the options of the pfdamin command.

pfadmin command options	
Option	Purpose and Syntax
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 InForm Service or a particular server. The ping levels are: • 1—Ping the InForm Service. • 2—Ping the InForm Service and all 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.
RECREATEREVIEWSCHEMA [*TrialName StudyLocale_ISO_name*]	Changes the Review Schema study locale. The Review schema study locale is chosen automatically when a trial 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 InForm server from the 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 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.

pfadmin command options	
Option	Purpose and Syntax
SETSERVER [Site *TrialName MachineName*] | [MedMLInstaller *TrialName MachineName*] | [Reporting *TrialName ReportingUrl*] | [ReportingAN *TrialName AuthenticationNamespace*] | [ReportingUR *TrialName UserRoot*] | [ReportingInt *TrialName ReportingInternalURI]* |	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 10 BI URL for study. • [ReportingAN *TrialName AuthenticationNamespace*]—Set Cognos 10 BI AuthenticationNamespace for study. • [ReportingUR *TrialName UserRoot*]—Set Cognos 10 BI UserRoot for study. • [ReportingInt TrialName ReportingInternalURI]—Set the internal URI that the InForm server uses to communicate with the Cognos 10 BI server. **Note:** The SETSERVER command requires that you set the Default Authentication Level property of the InForm server to Connect: To set this property: 1 Select Administrative **Tools** > **Component Services** > **My Computer - Properties**. 2 Set the **Default Properties - Default distributed communication properties - Default Authentication Level** value to Connect.
SETUP Server *ServerName* [Automatic]	Creates a new InForm server in the InForm Service. • [Automatic]—The server is automatically started with the InForm Service. Manual startup is the default.

pfadmin command options	
Option	**Purpose and Syntax**
SETUP Trial *TrialName ServerName* [/DB *OracleConnStr UID PID*] | [/DSN *TriDSN UID PID* [Automatic]]	Creates a study on the given 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 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.
SETUP CDD *RefName TrialName* /DB *OracleConnStr DSN UID PID* [/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.

pfadmin command options	
Option	Purpose and Syntax
SETUP CDD *RefName TrialName* /DSN *DSN UID PID* [/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 InForm product locale language. en-US and ja-JP are currently supported.
SETSERVER PFREPORTINGUSERPW <*studyname*> <*new_password*>	• pfreportinguser is the preferred studyuser to run pfrinit to configure Cognos for each study. • After the password for the pfreportinguser is changed via the InForm user interface, run this pfadmin command to set a property used by Reporting when it needs the credentials of the pfreportinguser user for building the model.
START [Server *ServerName*] | [Trial *TrialName*]	Starts an existing InForm server or study. • [Server *ServerName*]—Starts an existing 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 InForm server or study. • [Server *ServerName* [/Trials]]—Stops an existing 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.

pfadmin command options	
Option	**Purpose and Syntax**
UNINSTALL	Removes all InForm servers and studies, and then removes the InForm service settings PfUser_*computername* and the MTS library package. **Note:** The InForm service must be running for the command to work.

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 InForm Service.
	
	• [Service]
	  ▪ Lists all the servers and studies in the 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 trial is configured for Reporting.
	  ▪ Specifies the type of reporting setup: samedb or diffdb.
	  ▪ 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).

Examples

Check the status of InForm Reporting:

```
pfadmin view reporting pfst55
```

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 pfst55 study:

```
pfadmin start study pfst55
```

Stop all studies running on the demo InForm server, and then stop the demo server:

```
pfadmin stop server demo /Trials
```

Notes

Any arguments containing commas, equal signs, or spaces must be enclosed within double quotes.

pfcognosconfig

Purpose

Configures an InForm study to work with Cognos 10 BI.

PFCognosConfig can be run multiple times to change reporting parameters. If the reporting study user password changes, PFCognosConfig.exe must be run to tell InForm about the new password.

When PFCognosConfig is run multiple times for a study, each run after the first need not specify all the parameters – only the changed parameters need be specified.

Location

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

Usage

```
PFCognosConfig.exe /TRIALNAME:<studyname> /OUT:<Patch_and_name_of
Output_log>.log /NAMESPACE:<cap_namespace>
/GATEWAYURI:http://<gateway_uri>:80/cognos8
/DISPATCHERURI:<dispatcher_uri>:9300/p2pd/servlet/dispatch
/RootFolder:/<content>/<folder>[@name=<studyname>
/REPORTINGDIFFDBSERVER:<studyname> /REPORTINGDIFFDBPW:<studyname_password>
/REGISTERDBSERVER:<servername> /REGISTERDBUSER:<username>
/REGISTERDBPW:<userpassword>
/TRIALWEBSERVICE:<InForm_authentication_web_service_URL>/<studyname>/authservice
/authentication.svc/ /REMOVE
```

Option	Description
/TRIALNAME: <*studyname*>	Name of the InForm study. **Note:** Use the same case as when the study was created by the Central Designer deployment package.
/OUT: <*outputlog*>	Name of output log. **Example:** nocreatorgcap.log
/NAMESPACE: <*cap_namespace*>	Custom Authentication Provider (CAP) namespace. The default is informcap. The case of the value you enter here *must* be the same case as the entry in the Cognos Configuration utility. For example, if the entry in the Cognos Configuration utility is in lower case (informcap), the <*namespace*> option *must* also be informcap. Users can create additional namespaces manually in the Cognos Configuration tool. In this case, the name of the newly created namespace should be used in this field.
/GATEWAYURI: <*gateway_uri*>	External public URI that communicates with the Cognos 10 BI Gateway Services from an end user's browser. This Cognos parameter is set in the Cognos 10 BI Gateway Customization for InForm wizard. The parameter setting is stored in the cogstartup.xml file. **Example:** http:example.north.com/cognos10

Option	Description
/DISPATCHERURI: <*dispatcher_uri*>	Internal URI that the InForm server uses to communicate with the Cognos 10 BI server. This Cognos parameter is set in the InForm CRN 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. **Example:** http://example.north.com:9300/p2pd/servlet/dispatch.
/ROOTFOLDER: /<*content*>/<*folder*>[@name='<*studyname*>']	The top-level reporting folder for the company. Default: /content/folder[@name='<*studyname*>']
/REPORTINGSAMEDB:	Use if the study and the Reporting database are on the same server.
/REPORTINGDIFFDBSERVER:	Reporting database connection string (TNS Name). Use if Reporting and the InForm study are in different databases.
/ REPORTINGDIFFDBPW:	Reporting Trial password (reporting database trial username must be the same as the InForm database trial username, so the username need not be specified). Use if the study and the Reporting database are in different databases.
/TRIALWEBSERVICE:	InForm authentication web service URL. This is a required parameter.
/REGISTERDBSERVER:<ServerName>	Name of the server in which the study is registered with Cognos.
/REGISTERDBUSER:<UserName>	Study database user registered with Cognos.
/REGISTERDBPW:<UserPassword>	Password for the database user registered with Cognos.
/REMOVE	Turns off reporting for the study and removes all reporting-related settings from the study.

Example:

Example command-line with a complete set of parameters to set up reporting DiffDB:

```
PFCognosConfig.exe /TRIALNAME:PFST55DEC03 /OUT:d:\PFST55DEC03-PFCognosConfig.log
/NAMESPACE:informcap /GATEWAYURI:http://Kbacon2k3dell.north.pf.com:80/cognos8
/DISPATCHERURI:http://kbacon2k3dell.north.pf.com:9300/p2pd/servlet/dispatch
/RootFolder:/content/folder[@name='PFST55DEC03'] /REPORTINGDIFFDBSERVER:STUDY2
/REPORTINGDIFFDBPW:PFST55DEC03 /REGISTERDBSERVER:STUDY2
/REGISTERDBUSER:pfst55feb09 /REGISTERDBPW:pfst55feb09
/TRIALWEBSERVICE:http://dpf001235.north.pf.com/pfst55/authservice/authentication
.svc/
```

To remove the reporting settings from PFST55DEC03 study, use this syntax:

```
PFCognosConfig.exe /TRIALNAME:PFST55DEC03 /OUT:d:\PFST55DEC03-PFCognosConfig.log
/REMOVE
```

pfrinit

Purpose

Performs the following tasks:

- Modifies the default Cognos 10 BI capabilities to fit the InForm reporting environment.
- Creates new Cognos 10 BI groups that match InForm reporting requirements.
- Sets Public folders permissions so that only Publishers can write to this public area.
- Imports the InForm Trial Management (ITM) archive and prepare for new study setup.
- Maps study-specific reporting groups to the Cognos 10 BI 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 ITM package present in the InForm folder and renames it as a study-specific ITM 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

<*Installation_Directory*>\InForm\bin on InForm application server.

Usage

pfrinit PFWD crnsysadmin <*crnsysadmin_password*> <*namespace*> <*InForm_study_user*> <*InForm_study_user_password*> <*internal_dispatcher_uri*> <*studyname*>

The recommended InForm study user for running pfrinit is **pfreportinguser**. You can change the password for this user using the 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*** (on page 163).

pfrinit command options	
Option	Description
admin_namespace	Oracle Directory Server admin namespace. Type **ORACLEHS** (case-sensitive).

pfrinit command options	
Option	Description
admin_username	User name for the Oracle Directory Server admin namespace. Type **crnsysadmin**.
crnsysadmin_password	Password you chose when creating the crnsysadmin user.
namespace	Custom Authentication Provider (CAP) namespace. The default is informcap. The case of the value you enter here *must* be the same case as the entry in the Cognos Configuration utility. For example, if the entry in the Cognos Configuration utility is in lower case (informcap), the <*namespace*> option *must* also be informcap.
InForm_study_user	InForm study user who is a member of the following Reporting groups: • Publishers. • Either Sponsor Users or Site Users. **pfreportinguser** is the recommended study user to run pfrinit. This is user is created during Reporting and Analysis installation.
InForm_study_user_password	Password of the InForm study user.
internal_dispatcher_uri	Internal URI that the InForm server uses to communicate with the Cognos 10 BI server. This Cognos 10 BI parameter is set in the InForm CRN 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. **Example:** http://<*machine_FQDN*>:9300/p2pd/servlet/dispatch.
studyname	Name of the InForm study. **Note:** Use the same case as when the study was created by the Central Designer deployment package.

Example

pfrinit PFWD crnsysadmin crnsysadminpid informcap <*InForm_study_user*> <*InForm_study_user_password*> http://rdinform222.pf.com:9300/p2pd/servlet/dispatch pfst50