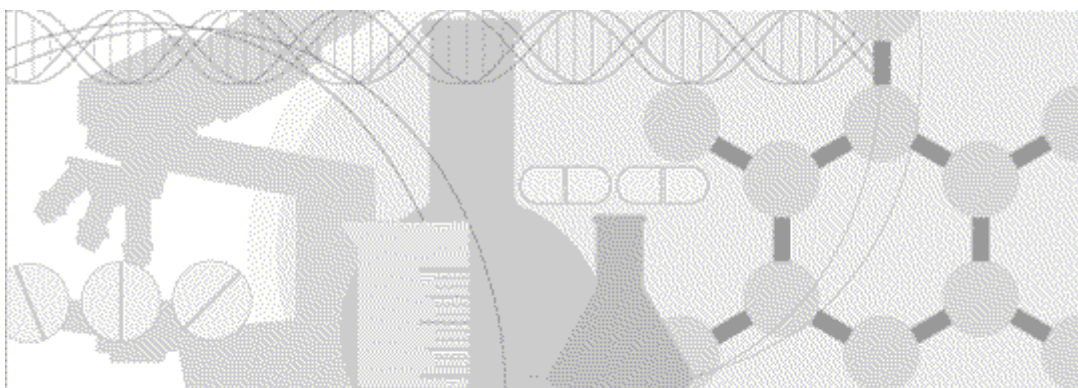


Study and Reporting Setup Guide

InForm™ GTM 5.5.2



ORACLE®

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Overview of this 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.

Before setting up a study and configuring the Reporting and Analysis module, use the *Installation Guide* for information about how to install the software and configure the environment for the InForm application and the Reporting and Analysis module.

Audience

This guide is for system administrators who are responsible for setting up InForm studies, and for setting up the Reporting and Analysis module for each study.

Related information

Documentation

All documentation is available from the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>) and the Download Center (<https://extranet.phaseforward.com>).

Document	Description
<i>Release Notes</i>	The <i>Release Notes</i> document describes enhancements introduced and problems fixed in the current release, upgrade considerations, release history, and other late-breaking information.
<i>Known Issues</i>	The <i>Known Issues</i> document provides detailed information about the known issues in this release, along with workarounds, if available. Note: The most current list of known issues is available on the Extranet. To sign in to the Extranet, go to https://extranet.phaseforward.com .
<i>Upgrade and Migration Guide</i>	The <i>Upgrade and Migration Guide</i> provides instructions for upgrading and migrating the InForm software and InForm Portal software to the current InForm release, and for upgrading the Cognos 8 Business Intelligence software for use with the Reporting and Analysis module. The guide also describes any changes and additions made to the database schema, MedML, and resource files.
<i>Secure Configuration Guide</i>	The <i>Secure Configuration Guide</i> 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.
<i>Installation Guide</i>	The <i>Installation Guide</i> describes how to install the software and configure the environment for the InForm application and Cognos 8 Business Intelligence software.
<i>Study and Reporting Setup Guide</i>	The <i>Study and Reporting Setup Guide</i> 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.
<i>User Guide</i>	The <i>User Guide</i> 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 document is also available from the Documentation CD and the InForm user interface.

Document	Description
<i>Reporting and Analysis Guide</i>	<p>The <i>Reporting and Analysis Guide</i> 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.</p> <p>This document is also available from the Documentation CD.</p>
<i>Reporting Database Schema Guide</i>	<p>The <i>Reporting Database Schema Guide</i> describes the Reporting and Analysis database schema, and provides information on creating Reporting Database Extracts (RDEs).</p>
<i>Portal Administration Guide</i>	<p>The <i>Portal Administration Guide</i> provides step-by-step instructions for setting up the InForm Portal software, and configuring and managing the InForm Portal application.</p> <p>This document is also available from the Documentation CD.</p>
<i>Utilities Guide</i>	<p>The <i>Utilities Guide</i> provides information about and step-by-step instructions for using the following utilities:</p> <ul style="list-style-type: none"> • PFConsole utility • MedML Installer utility • InForm Data Import utility • InForm Data Export utility • InForm Performance Monitor utility • InForm Report Folder Maintenance utility <p>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.</p> <p>This document is also available from the Documentation CD.</p>
MedML Installer utility online Help	<p>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.</p> <p>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.</p> <p>This document is also available from the user interface.</p>

Document	Description
InForm Data Export utility online Help	<p>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:</p> <ul style="list-style-type: none">• Customer-defined database (CDD).• Name value pairs. <p>This document is also available from the user interface.</p>
InForm Data Import utility online Help	<p>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.</p> <p>This document is also available from the user interface.</p>

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>.

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 8 Business Intelligence 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 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 8 Business Intelligence Customization for InForm wizard.
CRNGatewayConfig	Contains files used to run the Cognos 8 Business Intelligence 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	<p>The <i>User Guide</i> 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.</p> <p>This guide appears in a separate browser window that you can resize and move for easy viewing.</p>	<ul style="list-style-type: none"> In the upper-right corner of the main InForm application window, click the Help icon  > InForm User Guide.
Cognos 8 Business Intelligence documentation	<p>The complete Cognos 8 Business Intelligence documentation set, created by Cognos. This documentation is available only if using the Reporting and Analysis module.</p> <p>These guides appear in separate browser windows that you can resize and move for easy viewing.</p>	<ul style="list-style-type: none"> In the upper-right corner of the main InForm application window, click the Help icon  > Reporting User Guide. <p>An HTML page appears with links to the complete Cognos 8 Business Intelligence documentation set.</p>
Descriptions of InForm standard reports	<p>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.</p>	<ul style="list-style-type: none"> After you output any InForm standard report in HTML format, click the Report Help link. <p>An HTML page appears with detailed page-level Help for the report.</p>
Cognos documentation for Query Studio	<p>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.</p> <p>This guide appears in a separate browser window that you can resize and move for easy viewing.</p>	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"><li data-bbox="1065 201 1463 348">• Hold your mouse pointer over the item and the hover Help text appears in a popup window. <p data-bbox="1114 359 1463 470">When you move your mouse pointer off the item, the hover Help disappears.</p>

CHAPTER 2

Checklists for study and reporting setup

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Summary of study and reporting setup tasks

The following table summarizes the steps for setting up a study and the Reporting and Analysis module for a study. All steps are performed for each study and are required unless marked optional.

Note: If your installation includes only the InForm application without the Reporting and Analysis module, only steps 1, 2, and 5 apply.

Step	Where to get more information
1 Install an InForm study.	Setting up an InForm study
2 Add administrative objects and enable special features.	<ul style="list-style-type: none"> • Setting up an InForm study • <i>User Guide</i> • <i>Utilities Guide</i>
3 Install and configure the Reporting and Analysis module in a study.	<i>Installing and configuring the Reporting and Analysis module in a study</i> (on page 81)
4 Configure a study for the Reporting and Analysis module.	<i>Configuring a study for the Reporting and Analysis module</i> (on page 87)
5 Remove a study and the Reporting and Analysis module.	<i>Removing an InForm study and the Reporting and Analysis module</i> (on page 111)
6 Optionally, reset the reporting schema.	<i>Checklist—Resetting the reporting database—Different database instances</i> (on page 21)

Checklists—Setting up an InForm study

Checklist—Configuring administrative data

<input checked="" type="checkbox"/> Workflow step	Where to get more information
<input type="checkbox"/> 1 Configure system settings.	<ul style="list-style-type: none"> • <i>Update system configuration settings</i> (on page 33) • <i>Utilities Guide</i>
<input type="checkbox"/> 2 Optionally, create a sponsor definition.	<i>Sponsors</i> (on page 34)
<input type="checkbox"/> 3 Create: <ul style="list-style-type: none"> • Rights and rights groups. • Query and item groups. • Reporting groups, if the installation includes the Reporting and Analysis module. • Display overrides. • Sites. • Users. 	<ul style="list-style-type: none"> • <i>User Guide</i> • <i>Utilities Guide</i>

Checklist—Implementing electronic signatures (optional)

Decide which forms require signatures and which users will be authorized to sign. Then, perform these steps only if you want to include the ability to sign forms electronically.

<input checked="" type="checkbox"/> Workflow step	Where to get more information
<input type="checkbox"/> 1 Create the text of a signature affidavit.	<i>Creating the text of a signature affidavit</i> (on page 36).
<input type="checkbox"/> 2 Create one or more signature groups and assign users. Each signature group must have a CRF affidavit, a case report book affidavit, or both.	<i>Creating a signature group</i> (on page 37).
<input type="checkbox"/> 3 Associate a form with a signature group.	<i>Associating a form with a signature group</i> (on page 39).

<input checked="" type="checkbox"/> Workflow step	Where to get more information
<input type="checkbox"/> 4 Install the XML definitions in the study database. You must install MedML files in the study to indicate: <ul style="list-style-type: none"> • On which forms signature information should appear. • Which groups are required to sign. • Whether the signature is a CRF signature or a case report book signature. 	<i>Utilities Guide</i>
<input type="checkbox"/> 5 Optionally, configure the study to disable viewing the required signature list.	<i>Configuring the study to hide the required signature list</i> (on page 43).
<input type="checkbox"/> 6 Optionally, configure the signature print preview to display queries.	<i>Configuring the signature print preview</i> (on page 44).

Checklist—Enabling electronic study documentation (optional)

Perform these steps only if you want to enable the electronic study documentation features of the InForm application.

Note: In addition to these electronic study documentation features, you can set up online Help for CRFs and CRF items through the Central Designer application. For more information, see the *Central Designer User Guide*.

<input checked="" type="checkbox"/> Workflow step	Where to get more information
<input type="checkbox"/> 1 Create a study protocol. Note: As an alternative to this method, you can enable access to the study protocol using the InForm Portal application. For more information, see the <i>Portal Administration Guide</i> .	<ul style="list-style-type: none"> • <i>Creating a study protocol</i> (on page 45) • <i>Modifying the study protocol HTML file</i> (on page 45)
<input type="checkbox"/> 2 Create a documentation definition XML file.	<i>Creating a documentation definition XML file</i> (on page 46)
<input type="checkbox"/> 3 Create links between document files.	<i>Linking between document files</i> (on page 46)
<input type="checkbox"/> 4 Enable the display of the Visit Calculator and sample Case Book.	<i>Enabling the display of the Visit Calculator and sample Case Book in the Document window</i> (on page 48)
<input type="checkbox"/> 5 Associate the documentation with a study version.	<i>Associating documentation with a study version</i> (on page 48)

Checklist—Setting up randomization (optional)

Perform these steps only if you want to enable randomization for the study using the InForm randomization feature.

<input checked="" type="checkbox"/> Workflow step	Where to get more information
<input type="checkbox"/> 1 In the Central Designer application, include the special randomization item on a form.	Central Designer <i>User Guide</i>
<input type="checkbox"/> 2 In the Central Designer application, create a randomization rule.	Central Designer <i>User Guide</i>
<input type="checkbox"/> 3 With MedML and the MedML Installer utility, create a randomization sequence.	<i>Randomization sequences</i> (on page 50)
<input type="checkbox"/> 4 Configure the randomization data source manager.	<ul style="list-style-type: none"> • <i>Randomization source manager configuration</i> (on page 52) • <i>Randomization source database setup</i> (on page 52)
<input type="checkbox"/> 5 Configure the format of each randomization sequence.	<i>Randomization sequence format configuration</i> (on page 51)
<input type="checkbox"/> 6 Create an ODBC connection.	<i>ODBC connection for the randomization database</i> (on page 56)
<input type="checkbox"/> 7 Configure the study to use the randomization data source.	<i>Configuring the study to use the randomization DSN</i> (on page 57)

Checklist—Additional configuration steps (optional)

You can perform these steps in any order, as needed.

<input checked="" type="checkbox"/> Workflow step	Where to get more information
<input type="checkbox"/> 1 Configure a Customer-Defined Database (CDD).	<i>Customer-Defined Database (CDD)</i> (on page 62)
<input type="checkbox"/> 2	
<input type="checkbox"/> 3 Enable email notification. Customize .	<i>Email notification</i> (on page 61)
<input type="checkbox"/> 4	
<input type="checkbox"/> 5 Set up custom Home pages.	<i>Home page</i> (on page 59)
<input type="checkbox"/> 6 Configure the itemset source verification option.	<i>Itemset source verification option</i> (on page 74)
<input type="checkbox"/> 7 Login page customizations	

<input checked="" type="checkbox"/> Workflow step	Where to get more information
<input type="checkbox"/> 8 Configure formats for numbers generated by the InForm application.	Numbering (on page 65)
<input type="checkbox"/> 9 Customize the text of lists in system forms.	Predefined lists in system forms (on page 70)
<input type="checkbox"/> 10	
<input type="checkbox"/> 11 Configure study version acceptance dates for reports.	Reports (on page 64)
<input type="checkbox"/> 12 Enable Secure Sockets Layer (SSL).	Secure Sockets Layer (SSL) (on page 60)
<input type="checkbox"/> 13	
<input type="checkbox"/> 14 Create a subject record transfer affidavit.	Subject record transfer affidavit (on page 69)

About installing and configuring the Reporting and Analysis module

The procedures for installing and configuring the Reporting and Analysis module vary according to the way your environment is set up.

- **Study and reporting schemas installed in the same database instance (SameDB)**—This is the recommended configuration. The InForm database and the InForm reporting database are installed on a single database instance.
- **Study and reporting schemas installed in different database instances (DiffDB)**—The InForm database and the InForm reporting database are installed on separate database instances.

For more information, see the *Installation Guide*.

Checklist—Setting up the Reporting and Analysis module—Different database instances

Perform these steps to install and configure the Reporting and Analysis module for a study in an environment where the study and reporting schemas are in different database instances.

☑ Workflow step	Where to get more information
☐ 1 Grant privileges to the study user.	<i>Granting study user privileges</i> (on page 83)
☐ 2 Configure reporting variables for a study.	<i>Configuring study reporting variables—Different database instances</i> (on page 83)
☐ 3 Check the variable settings for a study.	<i>Checking study variable settings—Different database instances</i> (on page 85)
☐ 4 Install the Reporting and Analysis module.	<i>Installing the Reporting and Analysis module—Study and reporting in different database instances</i> (on page 83)
☐ 5 Configure the study and Sun ONE Directory Server for the Reporting and Analysis module.	<i>Configuring a study for the Reporting and Analysis module</i> (on page 89)

Checklist—Configuring a study for the Reporting and Analysis module

Perform these steps to set up a study so that users can generate reports with the Reporting and Analysis module.

<input checked="" type="checkbox"/> Workflow step	Where to get more information
<input type="checkbox"/> 1 Create an InForm user for reporting.	<i>Giving an InForm study user reporting rights</i> (on page 88).
<input type="checkbox"/> 2 Configure a study for the Reporting and Analysis module.	<i>Configuring a study for the Reporting and Analysis module using the InForm reporting Configuraiton utility</i> (on page 89).
<input type="checkbox"/> 3 Run the pfrinit utility.	<i>About the pfrinit utility</i> (on page 91). <i>Running the pfrinit utility</i> (on page 91).
<input type="checkbox"/> 4 Authorize users for the Reporting and Analysis module.	<i>Authorizing users for the Reporting and Analysis module</i> (on page 94).
<input type="checkbox"/> 5 Specify a logo for InForm Standard Reports.	<i>Specifying a logo for InForm Standard Reports</i> (on page 97).

Worksheet—Running the InForm Reporting Configuration Wizard

After you install and configure the Reporting and Analysis module, use the InForm 5.5 Reporting Configuration utility to configure a study to work with Cognos 8 BI. You can use this worksheet when preparing to run the wizard.

Field in configuration wizard	Description	Value to input
Cognos parameters page		
Cognos Namespace	Custom Authentication Provider (CAP) namespace. The default is informcap. The case of the value you enter here <i>must</i> 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 <code><namespace></code> option <i>must</i> also be informcap.	
Gateway URI	External public URI that communicates with the Cognos 8 BI Gateway Services from an end user's browser. This Cognos parameter is set in the Cognos 8 BI Gateway Customization for InForm wizard. The parameter setting is stored in the cogstartup.xml file.	<p>Example: http:example.north.com/cognos8</p>
Dispatcher URI	Internal URI that the InForm server uses to communicate with the Cognos 8 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.	<p>Example: http://example.north.com:9300/p2pd/servlet/dispatch.</p>
Root Folder	The top-level reporting folder for the company. Default:	<p><code>/content/folder[@name='<studyname>']</code></p>
Reporting database parameters		

Field in configuration wizard	Description	Value to input
Database Connection String	Reporting database connection string (INS Name). Use if Reporting and the InForm study are in different databases.	
User name (same as trial user)	Reporting database study username must be the same as the InForm database trial username.	
Password	Reporting Trial password. Use if the study and the Reporting database are in different databases.	
Study URL and database connection information		
Trial URL	The URL for the InForm study.	
Database Connection String	The connection string for the CAP.	
User	The user name for the CAP administrator.	
Password	Password for the CAP administrator.	

Worksheet—Running the pfrinit utility

The pfrinit utility requires the following values. You can use this worksheet when preparing to run the utility.

Option	Description	Value to input
admin_namespace	Sun ONE Directory Server admin namespace. Type ORACLEHS (case-sensitive).	ORACLEHS
admin_username	User name for the Sun ONE Directory Server admin namespace. Type crnsysadmin .	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 <i>must</i> 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 <i><namespace></i> option <i>must</i> also be informcap.	
InForm_study_user	InForm study user who is a member of the following Reporting groups: <ul style="list-style-type: none"> • Publishers. • Either Sponsor Users or Site Users. pfreportinguser is the recommended study user to run pfrinit. This user is created during Reporting and Analysis installation.	pfreportinguser
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 8 BI server. This Cognos 8 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. <p>Example: http://<machine_FQDN>:9300/p2pd/se rvlet/dispatch.</p>	

Option	Description	Value to input
studyname	Name of the InForm study. Note: Use the same case as when the study was created by the Central Designer deployment package.	

Checklists—Removing the Reporting and Analysis module and an InForm study

Checklist—Removing a reporting schema—Study and reporting in different database instances

Perform these steps to remove a reporting schema in an environment where the study and reporting schemas are in different database instances.

☑ Workflow step	Where to get more information
☐ Remove the reporting schema by running <code>deinstall_reporting_diffdb.sql</code> .	<i>Running <code>deinstall_reporting_diffdb.sql</code></i> (on page 113)

Checklist—Removing a study

Perform these steps to remove a study, InForm Server, and study database from the environment.

Note: If your InForm environment does not include the Reporting and Analysis module, perform only step 2.

☑ Workflow step	Where to get more information
☐ 1 Delete study information from the Cognos 8 BI environment.	<i>Removing an InForm study and InForm server</i> (on page 117)
☐ 2 Remove an InForm study and InForm server.	<i>Removing an InForm study and InForm server</i> (on page 117)

Checklist—Performance tuning

Perform these steps in any order, as needed.

☑ Workflow step	Where to get more information
☐ 1 Modify load behavior registry settings.	<i>Controlling the load behavior</i> (on page 100)
☐ 2 Update statistics.	<i>Updating statistics in a production environment</i> (on page 101)
☐ 3 Configure timeout value in ODBC connection pooling.	<i>Configuring an ODBC connection</i> (on page 102)
☐ 4 Resize virtual memory.	<i>Resizing virtual memory</i> (on page 103)
☐ 5 Remove preferential treatment from foreground applications.	<i>Removing preferential treatment from foreground applications</i> (on page 104)
☐ 6 Optimize Windows for network applications.	<i>Optimizing Windows for network applications</i> (on page 105)
☐ 7 Monitor the Windows Event log.	<i>Monitoring the Windows Event Logs</i> (on page 106)
☐ 8 Manage MS DTC logs.	<ul style="list-style-type: none"> • <i>Moving locations for MS DTC logs</i> (on page 107) • <i>Clearing and enlarging MS DTC logs</i> (on page 108)

Checklist—Resetting the reporting database—Different database instances

Perform the following steps to uninstall and reinstall the reporting schema in an environment where the study and reporting schemas are in different database instances.

☑	Workflow step	Where to get more information
☐	1 Review the values in the configdiffdb.sql file.	<i>Configuring study reporting variables—Different database instances</i> (on page 83)
☐	2 Uninstall the Reporting and Analysis module.	<i>Running deinstall_reporting_diffdb.sql</i> (on page 113)
☐	3 Reinstall the Reporting and Analysis module.	<i>Installing the Reporting and Analysis module—Different database instances</i> (on page 86)

CHAPTER 3

Setting up an InForm study

In this chapter

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Overview of setting up a study

To set up an InForm study, you must:

- 1 Execute a Central Designer deployment package.
- 2 Create administrative study components such as sites, users, and groups. For example:
 - Sites.
 - Users.
 - Rights and rights groups.
 - Query and item groups.
 - Reporting groups, if the installation includes the Reporting and Analysis module.
 - Display overrides.

For more information, see the *User Guide* and *Utilities Guide*.

- 3 Configure the system configuration settings.

For more information, see *Configuring the system configuration settings* (on page 33).

- 4 Additionally, depending on the requirements of your study, you might need to set up the following optional features.

For more information, see *Additional study configuration steps—Optional* (on page 34).

- A customer-defined database (CDD).
- Electronic signatures.
- Electronic study documentation.
- Email notification and customizations
- Custom Home pages.
- Itemset source verification option
- Login page customizations
- Numbering format for application-generated numbers.
- Custom text in lists on certain system forms.
- Randomization.
- Reports
- Secure Sockets Layer (SSL).
- Sponsor definitions.
- Text of a subject record transfer affidavit.

Note: Before installing your own study, you might want to install the sample study provided with the InForm software. The sample study contains examples of the types of study components you can use when you design your own study. For more information, see *Installing a study* (on page 27) and *Installing the sample study* (on page 28) .

About the InForm Service

The InForm Service must be started to create the application servers and load studies. To start or stop the InForm Service, you must be a local administrator for the machine on which you are installing the study.

About InForm servers

Every InForm study must be associated with an InForm server. Each server may house one or more studies. For production servers, it is recommended that you associate each study with its own server in a one-to-one relationship.

About Central Designer deployment packages

A deployment package for a study is an executable file that is created in the Central Designer application. A deployment package contains metadata that describes the study, along with mapping definitions for CDD or CIS mappings. When you execute a deployment package, you specify the InForm server on which to install the study, and the deployment process creates the server if it does not already exist.

Before installing a study

- 1 Verify that the required services are running.
For more information, see *Verifying that required services are running* (on page 26).
- 2 Copy the Central Designer deployment package to the server that hosts the InForm study database instance.

Verifying that required services are running

Click **Administrative Tools > Services**, and check to see if the following services are started. If they are not, start the services in the following order:

- 1 MSDTC.
- 2 Oracle Service.
- 3 OracleOraHome102TNSListener.
- 4 IIS Admin service.
- 5 InForm Service.
- 6 World Wide Web Publishing service.

Note: The InForm Service must be started to create the application servers and load studies. To start or stop the InForm Service, you must be a local administrator for the machine on which you are installing the study.

Installing a study

- 1 Log in to the computer where the InForm server software is installed.
- 2 Open the Microsoft Windows Explorer application, and find the deployment package EXE file.
- 3 Double-click the deployment package file.
- 4 A Command Prompt window opens and displays messages about unpacking the executable file, updating application configuration information, and starting the installer.
- 5 Then, the welcome page of the Deployment Wizard appears.
- 6 Complete the pages of the Deployment Wizard. Click **Next** after you finish filling out each page.
- 7 On the last page of the Deployment Wizard, click **Finish** when the deployment process completes.

For more information, see *Deployment Wizard for InForm deployment—Option descriptions* (on page 29).

Note: During the installation of a study, the InForm software creates a virtual Web directory with the same name as the study name. When choosing a study name, make sure that you do not already have a virtual Web directory with the same name.

- 8 When the deployment process is complete, stop and restart the study.

The deployment process:

- Creates the InForm application server, if it does not already exist.
- Creates the InForm study database, if it does not already exist.
- Installs the MedML metadata definitions for the base study components. The base study components include system resources, settings, and form definitions common to all InForm studies.
- Installs the rule engine assembly.
- Installs the study-specific MedML definitions generated from the deployment package.
- Installs CDD or CIS mapping definitions.
- Creates review schema.
- Creates reporting views.
- Creates RD views.

Installing the sample study

The InForm software includes the components of a sample study (PFST60) that you can install to familiarize yourself with the software. The study is available as a Central Designer deployment package.

The deployment package for the sample study is available on the InForm installation media. After installing the InForm software, you can install the sample study through the Start menu.

To install the PFST55study:

- On the server where the InForm application is installed, click **Start > All Programs > Oracle® Health Sciences > InForm 5.5 Install Sample Study**.

The deployment package for the sample study runs and installs the study and sample administrative data, including users, sites, rights, and groups.

Deployment Wizard for InForm deployment—Option descriptions

Page	Option	Description
Welcome		Introduction page.
Connecting to InForm	Connect to the InForm application and requests server and study information.	
	Message section	Informational and error messages.
	Reconnect	Reconnect to the InForm application after correcting any error conditions.
InForm Trial Parameters		Specify information about the InForm application server and study to which to deploy the package. If either the server or the study does not already exist, subsequent pages collect additional information needed to create them.
	Server Name	Name of the InForm application server.
	Trial Name	Name of the InForm study.
	Strict Mode	If selected (default)—Only complete MedML definitions of study components can be loaded into the study; an incomplete definition causes the installation to fail. If not selected —Incomplete study component definitions are permitted.
Create a New InForm Server		Specify whether the InForm server should start automatically when the InForm Service starts. This page appears if the specified InForm server does not yet exist.
	Startup Server Automatically on InForm Startup	If selected —The InForm server starts automatically when the InForm Service starts. If not selected —The InForm server must be started manually.
Create a New InForm Trial		Specify information needed to create the study. This page appears if the specified InForm study does not yet exist.
	User Name	Oracle user name for the study database.
	User Password	Oracle password for the study database.

Page	Option	Description
	Please specify a database for creating a new InForm study	<p>One of the following:</p> <ul style="list-style-type: none"> • Connect String—Connection string for the Oracle instance. • TriDSN—ODBC System DSN for the InForm study.
	Startup Trial Automatically on InForm Startup	<p>If selected—The InForm study starts automatically when the InForm Service starts.</p> <p>If not selected—The InForm study must be started manually.</p>
Ready for Deployment		View a summary of the parameters that will be used for deployment.
Deployment Results		View messages generated during deployment processing, along with the elapsed time. These messages are also collected in the StudyInstaller.log file in the directory where you execute the deployment package.

Managing studies in an InForm installation

After a study is installed, you might need to perform study management tasks such as stopping and starting a study or InForm application server, creating a new InForm application server, or removing a study or InForm application server. The `pfadmin` command utility is available for these tasks.

The following table lists the most commonly used `pfadmin` command options. For a complete description of all `pfadmin` command options, see *pfadmin* (on page 141).

Action	Command, issued from a Command Prompt window
View the status of InForm application servers and studies running under the InForm Service.	<code>pfadmin view service</code>
Start an InForm application server.	<code>pfadmin start server <servername></code>
Start a study.	<code>pfadmin start trial <trialname></code>
Stop a study.	<code>pfadmin stop trial <trialname></code>
Stop an InForm application server.	<code>pfadmin stop server <servername></code>

Restricting access to a study

- 1 Select **Start > All Programs > Administrative Tools > Internet Services Manager**.
The Internet Information Services window appears.
- 2 Under the machine name listed, select the **Default Website** folder.
- 3 In that folder, right-click the name of the InForm study.
- 4 Select **Properties**.
The Properties dialog box appears.
- 5 Select the **Directory Security** tab.
- 6 Change the settings for IP addresses and Domain name restrictions to suit your needs.

Configuring the system configuration settings

System configuration options are global settings that govern certain aspects of how the InForm application handles a study. The settings of configuration parameters specify customizable, system-wide InForm behaviors.

You can update system configuration settings through the InForm Admin user interface or by creating XML definitions of system configuration parameters and installing them in a study with the MedML Installer utility. When using XML definitions, you set each parameter definition with the SYSCONFIG MedML element.

```
<SYSCONFIG
  CONFIGNAME="name"
  TYPE="0"
  VALUE="text" />
```

For example, to specify that InForm user passwords must contain one numerical character and one uppercase character, use the following SYSCONFIG definitions:

```
<SYSCONFIG CONFIGNAME="OneNumericCharacter" TYPE="0" VALUE="1"/>
<SYSCONFIG CONFIGNAME="OneUppercaseCharacter" TYPE="0" VALUE="1"/>
```

The sample study PFST55 includes an XML file of system configuration parameter settings. This file is located in the \InForm \Sample_PFST60\Admin folder in the InForm installation directory.

For a complete list of SYSCONFIG parameters, see the *Utilities Guide*.

Additional study configuration steps—Optional

After a study is installed, depending on the features that you want to enable, you may need to perform additional configuration steps, using MedML, the MedML Installer utility, and other software that is external to the InForm application, such as a database for randomization.

You can perform the optional steps in any order, as needed.

Sponsors

Sponsor definitions specify address and contact information about a sponsor. Sponsor information is for documentation and reporting purposes only and does not appear in the InForm user interface.

Defining sponsors

To create a sponsor definition:

- 1 Create an XML file that includes the appropriate SPONSOR MedML elements.
- 2 Install the sponsor definition in the InForm study database by processing it with the MedML Installer utility.

Sponsor definition syntax

The syntax of the SPONSOR element is shown below.

```
<SPONSOR
NAME="name"
[PROGRAM="program-name of study"]
[THERAPEUTICAREA="therapeutic area of study"]
[NOTE="notes" ]
[ADDRESS="addr1 " ]
[ADDRESS2="addr2" ]
[CITY="name " ]
[STATE="name " ]
[PROVINCE="name " ]
[ZIPCODE="code " ]
[POSTCODE="code " ]
[COUNTRY="name " ]
[PHONE="num " ]
[ALTPHONE="num" ]
[FAX="num" ]
[EMAIL="addr" ]
[LANGUAGE="name " ]
[LOGOFILE="file" ]
[LOGOTYPE=" GIF | JPEG | TEXT" ]>
```

Electronic signatures

To comply with regulations set forth in 21 CFR 11, CRFs and case report books must be signed by users specifically authorized to handle these functions. The InForm application supports electronic signature by using signature groups and the SIGNCRF MedML element.

When you create a study from a Central Designer deployment package, signatures are not included. You must decide which forms require signatures and which users will be authorized to sign. Then, perform these steps only if you want to include the ability to sign forms electronically.

- 1 Create the text of a signature affidavit.

For more information, see *Creating the text of a signature affidavit* (on page 36).

- 2 Create one or more signature groups and assign users.

Each signature group must have a CRF affidavit, a case report book affidavit, or both.

For more information, see *Creating a signature group* (on page 37).

- 3 Associate each form that requires signature with the appropriate signature group.

For more information, see *Associating a form with a signature group* (on page 39).

- 4 Install the XML definitions for the signature groups in the InForm database using the MedML Installer utility.

You must install MedML files in the study to indicate:

- On which forms signature information should appear.
- Which groups are required to sign.
- Whether the signature is a CRF signature or a case report book signature.

For more information, see the *Utilities Guide*.

- 5 Optionally, configure the study to disable viewing the required signature list.

For more information, see *Configuring the study to hide the required signature list* (on page 43).

- 6 Optionally, configure the signature print preview to display queries.

For more information, see *Configuring the signature print preview* (on page 44).

Implementing electronic signatures—Summary

- 1 Decide which forms require signatures and which users will be authorized to sign.
- 2 Create the text of a signing affidavit.
- 3 Create one or more signature groups with signing affidavits by using the SIGNATUREGROUP element.
Each signature group must have a CRF affidavit, a case report book affidavit, or both.
- 4 Assign users to those groups.
- 5 Use the SIGNCRF element to associate each form that requires signature with the appropriate signature group.

- 6 Install the XML definitions for signature groups and SIGNCRF element in the InForm database by using the MedML Installer utility.
- 7 Optionally, use the ViewCRFSignList configuration variable to specify whether you want a list of needed and supplied signatures to be displayed on each CRF for which a signature is required.

About enabling electronic signatures

When you create a study from a Central Designer deployment package, signatures are not included. To enable electronic signatures:

- 1 Create signature groups and assign users.
- 2 Define the signature affidavit text.
- 3 Associate a form with a signature group.

You must install MedML files in the study to indicate:

- On which forms signature information should appear.
- Which groups are required to sign.
- Whether the signature is a CRF signature or a case report book signature.

Creating the text of a signature affidavit

A signature affidavit is the text that specifies the meaning of the signature. This text appears when the user is signing a CRF or case report book. You define the signature affidavit text in:

- The MedML used to create or modify the signature group.
- or
- A text file which is referred to by the signature group MedML file.

A separate text file must be provided for each different signature. You can associate only one CRF and one CRB signature affidavit with each signature group.

- **CRF signature**—Indicates that the signature refers only to the information on that form.
- **CRB signature**—Indicates that the signature refers to the entire case report book. This signature appears on a single form, usually at the end of a study.

To complete the compliance, make sure that:

- The First Name and Last Name of each person who will be signing CRFs are that person's full name. This ensures that the signature history bears the signer's full name.
- The text of the signing affidavit includes the signer's full name. To do this, include two %s variables in the text, one for the first name of the user and the other for the last name.
- The text of the signing affidavit includes the meaning of the signature.

Creating a signature group

A signature group identifies users with permission to sign CRFs or case report books. To be fully signed, a CRF must be signed by a representative of each signature group with which it is associated.

You can create one or more signature groups with signing affidavits by using the SIGNATUREGROUP element.

Each signature group must have a CRF affidavit, a case report book affidavit, or both.

Note: You associate CRFs and case report books with a signature group by using the SIGNCRF MedML element.

SIGNATUREGROUP element

A signature group identifies users with permission to sign CRFs or case report books. To be fully signed, a CRF must be signed by a representative of each signature group with which it is associated.

To create a signature group, use the SIGNATUREGROUP element.

```
<SIGNATUREGROUP
  GROUPNAME="name"
  [ GROUPDESCRIPTION="text" ]
  [ UUID="id" ]
  [ LANGUAGE="name" ]
  [ CRFTEXT="text" ]
  [ CRFFILE="file" ]
  [ CRFMEANING="text" ]
  [ CRBTEXT="text" ]
  [ CRBFILE="file" ]
  [ CRBMEANING="text" ]>
  <USERREF* attributes/>
  <TRANSLATIONS/>
</SIGNATUREGROUP>
```

Using one or more USERREF child elements, add each user that you want in the group to the SIGNATUREGROUP definition. These users must have the right to sign a CRF or case report book, as appropriate. The USERREF element has a single USERNAME attribute, which specifies the user name of the user that you are assigning to the group.

In the following SignatureGroup, users dobrien and lhill can sign.

```
<SIGNATUREGROUP GROUPNAME="CRA Signature">
  <USERREF USERNAME="dobrien"/>
  <USERREF USERNAME="lhill"/>
</SIGNATUREGROUP>
```

SIGNATUREGROUP attributes

Attribute	Description
GROUPNAME	Name of the signature group. REQUIRED.
GROUPDESCRIPTION	Text describing the signature group. OPTIONAL.

Attribute	Description
UUID	<p data-bbox="699 212 1469 275">Universally Unique Identifier, a string that identifies the component uniquely across all studies, study databases, and machines.</p> <p data-bbox="699 296 857 327">OPTIONAL.</p>
CRFTEXT	<p data-bbox="699 348 1469 453">Text of the Electronic Signature Affidavit displayed to members of the signature group when signing a CRF associated with the signature group.</p> <p data-bbox="699 474 1469 579">OPTIONAL; if used, specify either the CRFTEXT or CRFFILE attribute. If you do not specify either attribute, the MedML Installer utility uses the text provided in a default CRF signing text resource.</p> <p data-bbox="699 600 1453 632">This resource has the UUID PF_DEFAULT_CRFAFFADAVIT.</p> <p data-bbox="699 653 1404 747">The text must include the stated intention of the signer for the electronic signature to be the legal equivalent of a handwritten signature.</p> <p data-bbox="699 768 1437 831">The text should include two %s characters to represent the user's first and last names.</p>
CRFFILE	<p data-bbox="699 846 1485 1020">Path name of an HTML or text file containing the text of the Electronic Signature Affidavit displayed to members of the signature group when signing a CRF associated with the signature group. The path name must be relative to the directory from which you run the MedML Installer utility.</p> <p data-bbox="699 1041 1469 1146">OPTIONAL; if used, specify either the CRFTEXT or CRFFILE attribute. If you do not specify either attribute, the MedML Installer utility uses the text provided in a default CRF signing text resource.</p> <p data-bbox="699 1167 1453 1199">This resource has the UUID PF_DEFAULT_CRFAFFADAVIT.</p>
CRFMEANING	<p data-bbox="699 1209 1469 1314">Text that summarizes the meaning of the signature on the CRF. This text is displayed on the Signature Details screen and in the list of completed and required signatures on the CRF.</p> <p data-bbox="699 1335 1437 1440">OPTIONAL. Required if either the CRFTEXT or CRFFILE attribute is specified. At least one combination of CRFTEXT or CRFFILE and CRFMEANING should be specified.</p>

Attribute	Description
CRBTEXT	<p>Text of the Electronic Signature Affidavit displayed to members of the signature group when signing a case report book associated with the signature group.</p> <p>OPTIONAL; if used, specify either the CRBTEXT or CRBFILE attribute. If you do not specify either attribute, the MedML Installer utility uses the text provided in a default case report book signing text resource.</p> <p>This resource has the UUID PF_DEFAULT_CRBAFFADAVIT.</p> <p>The text must include the stated intention of the signer for the electronic signature to be the legal equivalent of a handwritten signature.</p> <p>The text should include two %s characters to represent the user's first and last names.</p>
CRBFILE	<p>Path name of an HTML or text file containing the text of the Electronic Signature Affidavit displayed to members of the signature group when signing a Case Book associated with the signature group. The path name must be relative to the directory from which you run the MedML Installer utility.</p> <p>OPTIONAL; if used, specify either the CRBTEXT or CRBFILE attribute. If you do not specify either attribute, the MedML Installer utility uses the text provided in a default case report book signing text resource.</p> <p>This resource has the UUID PF_DEFAULT_CRBAFFADAVIT.</p>
CRBMEANING	<p>Text that summarizes the meaning of the signature on the case report book. This text is displayed on the Signature Details screen and in the list of completed and required signatures on the CRF used for signing a case report book.</p> <p>OPTIONAL. Required if either the CRBTEXT or CRBFILE attribute is specified. At least one combination of CRBTEXT or CRBFILE and CRFMEANING should be specified.</p>

Associating a form with a signature group

You can associate CRFs and case report books with signature groups. To associate a CRF or case report book with a signature group, create XML for each form that requires an authorized signature, using the SIGNCRF MedML element.

One form represents the case report book for signature purposes. To designate a CRF as the case report book signing form, specify its RefName as the value of the FORMREFNAME attribute in the SIGNCRF element, and specify **True** as the value of the FINALCRF attribute.

SIGNCRF element

Use the SIGNCRF element to associate each form that requires signature with the appropriate signature group.

The SIGNCRF element has the following syntax:

```
<SIGNCRF
  SIGNATUREGROUPNAME="name"
  FORMREFNAME="name"
  [ RESETFORMSTATE="TRUE | FALSE" ]
  [ INVALIDATIONLEVEL="USER | GROUP" ]
  [ FINALCRF="TRUE | FALSE" ] />
```

Note: For more information about the RESETFORMSTATE and INVALIDATION LEVEL attributes, see the *Utilities Guide*.

For example, to ensure that a form is signed by both a sponsor and a site representative, create a signature group for the sponsor and a signature group for the site, and associate the form with both signature groups. Assign sponsor users who have signature rights to the sponsor signature group, and assign site users who have signature rights to the site signature group.

The following example illustrates the use of the SignCRF element to designate the DEM, VS, and SC forms as requiring signature by a member of the CRA Signature group. The FINALCRF attribute indicates that signing the SC form signs the case report book.

```
<SIGNCRF SIGNATUREGROUPNAME="CRA Signature" FORMREFNAME="DEM"/>
<SIGNCRF SIGNATUREGROUPNAME="CRA Signature" FORMREFNAME="VS"
  INVALIDATIONLEVEL="USER"/>
<SIGNCRF SIGNATUREGROUPNAME="CRA Signature" FORMREFNAME="SC"
  FINALCRF="true"/>
```

SIGNCRF attributes

Attribute	Description
SIGNATUREGROUPNAME	Identifies the authorized signature group. The signature group must have already been defined by a SIGNATUREGROUP element. REQUIRED.
FORMREFNAME	Specifies the RefName of the CRF. The form must have already been defined in the system. Note that screening and enrollment forms cannot be signed. REQUIRED.

Attribute	Description
RESETFORMSTATE	<p>Specifies the policy for handling already-signed forms when a new signature group is added. Values are:</p> <ul style="list-style-type: none"> • TRUE—Indicates that the form must be approved by a member of the current signature group. This resets the state of fully-signed forms specified in the FORMREFNAME attribute to not fully signed. When a form is reset, the original signatures remain valid. However, the form must now be signed by a member of the newly-associated signature group as well. • FALSE—Default. Indicates that the form need not be re-signed when a new signature group is added. <p>OPTIONAL.</p>
INVALIDATIONLEVEL	<p>Specifies whether a signature should be invalidated when a data item is imported after the form has been signed. Values are:</p> <ul style="list-style-type: none"> • USER—The form or case report book signature is invalidated if the user who signed can view the item being imported. • GROUP—The form or case report book signature is invalidated if at least one user in the signature group can view the item being imported. <p>OPTIONAL.</p> <p>If you do not specify the INVALIDATIONLEVEL attribute, the InForm application invalidates the signature whenever the form is edited, either directly or by import. For more information, see <i>Signature invalidation</i> (on page 43).</p>
FINALCRF	<p>Indicates whether the form specified in the FORMREFNAME attribute represents the entire case report book for signing purposes. Note the following restrictions on the CRF designated as the case report book signing form:</p> <ul style="list-style-type: none"> • Only one form can be marked as FINALCRF • The final CRF cannot belong to more than one regular visit or to a repeating visit • The final CRF cannot be a repeating form <p>Values are:</p> <ul style="list-style-type: none"> • TRUE—The form is the case report book signature form. • FALSE—Default. The form is not the case report book signature form. <p>OPTIONAL.</p>

Associating an affidavit with a signature group

The following SignatureGroup definition illustrates the inclusion of the signing text for a CRF. The two %s characters specify that the displayed Electronic Signature Affidavit should include the user's first and last names. Note that the tag attributes must be in single quotes because they appear within the double quotes of the CRFTEXT attribute. Additionally, the SignatureGroup definition includes the definition of a translation string for the CRFTEXT attribute.

```
<SIGNATUREGROUP GROUPNAME="PI Signature" LANGUAGE="en-US"
  CRFTEXT="&lt;font name='Arial' size='2'&gt;By my dated signature below,
  I, %s %s, verify that this case report form accurately displays
  the results of the examinations, tests, evaluations and
  treatments noted within.&lt;br&gt;&lt;br&gt;
  Pursuant to Section 11.100 of Title 21 of the Code of Federal
  Regulations, this is to certify that I intend that this
  electronic signature is to be the legally binding equivalent
  of my handwritten signature.&lt;br&gt;&lt;br&gt;
  To this I do attest by supplying my user name and password and clicking
  the button marked &t b &gt;Submit&lt;/b&gt; below.&lt;/font&gt;"
  CRFMEANING="Approval">
  <USERREF USERNAME="dobrien"/>
  <USERREF USERNAME="lhill"/>
  <TRANSLATIONS>
    <TRANSLATION NAME="CRFTEXT" LOCALE="fr-FR"
      DISPLAYTEXT="&lt;font name='Arial' size='2'&gt;Par ma signature datée
      ci-dessous,
      Moi, %s %s, je confirme que ce cas formulaire de rapport affiche avec
      précision
      les résultats des examens, des tests, des évaluations et des
      constatées dans les traitements. &lt;br&gt; &lt;br&gt;
      Conformément à la Section de 11,100 Titre 21 du Code of Federal
      Règlement, il s'agit de certifier que j'ai l'intention que ce
      signature électronique doit être juridiquement contraignant équivalent
      de ma signature manuscrite. &lt;br&gt; &lt;br&gt;
      Pour cela, je ne témoignent par la fourniture de mon nom d'utilisateur
      et mot de passe et cliquez sur
      le bouton &t b &gt;Submit&lt;/b&gt; ci-dessous.&lt;/font&gt;"
    <TRANSLATION NAME="CRFMEANING" LOCALE="fr-FR"
      DISPLAYTEXT="Approbation"/>
  </TRANSLATIONS>
</SIGNATUREGROUP>
```

Signature invalidation

If a user updates a signed form, the InForm application invalidates the previous signature or signatures and updates the signature listings and each form to indicate that the form or case report book must be signed again.

Data that has been coded and imported to the InForm application has special invalidation considerations. Coded data is often designed to be hidden on a form. If the import of coded data invalidates a signature, it might not be possible to see which item caused the invalidation. Therefore, study designers can specify whether imported data invalidates a signature.

When coded data is imported to a signed CRF or case report book, invalidation of the CRF or case report book is determined by the following:

- Visibility of the imported data.
- Setting of the `INVALIDATIONLEVEL` attribute of the `SIGNCRF` MedML component that associates a form or a case report book with a signature group.

If the signing user can view the imported item, or if the `INVALIDATIONLEVEL` attribute is not specified, the signature is always invalidated.

If the study is designed to base invalidation on the value of the `INVALIDATIONLEVEL` attribute, the invalidation decision for a CRF or a case report book is based on the following rules:

- If the `INVALIDATIONLEVEL` value is **USER**, the signature is invalidated only if the signing user can view the imported item.
- If the `INVALIDATIONLEVEL` value is **GROUP**, the signature is invalidated only if at least one user in the signature group can view the imported item.

Note: Invalidation processing for case report book signatures is invoked if coded data is imported to *any* CRF in the case report book, whether or not the CRF requires a signature.

Configuring the study to hide the required signature list

By default, the InForm application displays a list of required signatories on each CRF that requires signatures. This feature is an option that you set with a system configuration variable. To specify whether to display a required signature list:

- 1 Create an XML file containing the following element:

```
<SYSCONFIG
  CONFIGNAME="ViewCRFSignList"
  TYPE="0"
  VALUE="n" />
```

where *n* is a code:

- **0**—Do not display required signature list on a CRF.
 - **1**—Default. Display required signature list on a CRF.
- 2 Install the setting in the study database using the MedML Installer utility. Note that you must stop and start the study for a change in setting to take effect.

The current value of the system configuration variable is visible on the System Configuration page in the Admin user interface.

Configuring the signature print preview

The InForm Signatures page includes an option to print a preview of a form that requires a signature or a preview of the case report book. By default, if any items have open or answered queries, the queries are not included in the print preview.

To include queries in the print preview:

- 1 Create a key called PFQuery in the following registry folder:
HKEY\SOFTWARE\ORACLEHS\InForm
- 2 Create a DWORD Value called SignaturePrintPreviewQueries.
- 3 Change the value of the SignaturePrintPreviewQueries entry to a value other than 0.

If the SignaturePrintPreviewQueries entry has a value other than 0, the signature print preview shows open and answered queries under the items to which they are attached.

Note: The registry change takes effect immediately. You do not need to stop and restart the study.

Electronic study documentation

You can create study-specific documents that users can display in the Document window during an InForm session.

Perform these steps only if you want to enable the electronic study documentation features of the InForm application.

Note: In addition to these electronic study documentation features, you can set up online Help for CRFs and CRF items through the Central Designer application. For more information, see the Central Designer *InForm Designer's Guide*.

- 1 Create a study protocol.

For more information, see *Creating a study protocol* (on page 45) and *Modifying the study protocol HTML file* (on page 45).

Note: As an alternative to this method, you can enable access to the study protocol using the InForm Portal application. For more information, see the *Portal Administration Guide*.

- 2 Create a documentation definition XML file.

For more information, see *Creating a documentation definition XML file* (on page 46).

- 3 Create links between document files.

For more information, see *Linking between document files* (on page 46).

- 4 Enable the display of the Visit Calculator and sample case report book.

For more information, see *Enabling the display of the Visit Calculator and sample case report book in the Document window* (on page 48).

- 5 Associate the documentation with a study version.

For more information, see *Associating documentation with a study version* (on page 48).

Overview of creating electronic study documentation

You can create study-specific documents that users can display in the Document window during an InForm session. You can:

- Create an online study protocol.
- Set up links between document files so users can navigate between them by clicking highlighted link text.
- Create a documentation definition file to load study documents into the database.
- Associate a documentation definition with a StudyVersion.

Creating a study protocol

Note: As an alternative to this method, you can enable access to the study protocol using the InForm Portal application. For more information, see the *Portal Administration Guide*.

- 1 Create one or more HTML files containing the text of the study protocol.
One file per protocol section is suggested. Within each file, make the code additions and changes as described in *Modifying the study protocol HTML file* (on page 45).
- 2 Create a Table of Contents file that includes each heading or subsection to which you want users to be able to link.
- 3 Create an XML file that defines the study protocol in a Documentation tag and as many DocBody tags as there are study protocol HTML files.
Use the BOOKMARKDOC value of the DOCTYPE attribute. For information on creating this documentation definition file, see *Creating a documentation definition XML file* (on page 46).
- 4 Link each item in the Table of Contents file to the appropriate study protocol HTML file.
For more information, see *Linking between document files* (on page 46).
- 5 Include the Documentation RefName in a StudyVersionDoc definition.
For more information, see *Associating documentation with a study version* (on page 48).
- 6 Process the study documentation in the MedML Installer utility to load the files into the InForm software database.

Modifying the study protocol HTML file

- 1 Replace the </head> and < body> tags at the beginning of each file with the following JavaScript function definition and call:

```
< script language="JavaScript">
function OnLoad()
{
%s
}
</script>
</head>

< body ONLOAD="OnLoad()">
```

Note: Do not include this JavaScript function and call in the Table of Contents file.

- Search each file for percent signs (%), for example in table width specifications. Except for the %s string substitution command that appears in the OnLoad function definition at the beginning of each file, precede each percent sign with another percent sign as an escape character (%%). For example:

```
< table border="0" width="80%%">
< tr>
< td width="50%%"></td>
< td width="50%%"></td>
</tr>
</table>
```

- Search each file for exclamation points (!). To include an exclamation point in the text of the study protocol, insert an additional exclamation point as an escape character. For example:
- Use HTML formatting tags as necessary to create a document whose structure is clear and easy to understand. The following formatting conventions are suggested:

```
< p>< b>Warning!!</b></p>
```

- Code the protocol title as an <h1> tag. For example:

```
< h1>PFST55Clinical Drug Study</h1>
```

- Code the name of each protocol section as an <h2> tag. For example:

```
< h2>Objectives of Study</h2>
```

Creating a documentation definition XML file

You can create a documentation definition file to load study documents into the database.

The documentation definition XML file specifies the RefNames of the HTML files used in creating study documentation and specifies the locations of those files for the MedML Installer utility. Additionally, this file characterizes the study documentation files by type and provides a count of links so that the MedML Installer utility can reserve processing space.

Note that the first and last elements in the file must be <MEDMLDATA> and </MEDMLDATA>. To create a documentation definition file, use the following elements for each study document:

- Use the DOCUMENTATION element to define a complete study protocol..
- Assign a RefName to the document using the REFNAME attribute.

Linking between document files

You can set up links between document files so users can navigate between them by clicking highlighted link text.

To create a link between normal HTML files, you use an <A> tag with an HREF attribute in the file that contains the link. The HREF attribute is set to the name of the file to which you want to link (the target file). For example, to create a link on the text “road map” to a file called roadmap.htm, you would enter the following HTML text in the file where the link appears:

```
<a href="roadmap.htm">road map</a>
```

If the link is to an HTML bookmark within the file, you add the bookmark name to the HREF attribute:

```
<a href="roadmap.htm#appwindows">application windows</a>
```

To link between HTML files defined by DOCTYPE elements, you still use an <A> tag with an HREF, but you replace the name of the target file with the following string:

```
" javascript:top.location.href='./PFTS.dll?pfSessionCode=!s!&pfCommand=TrialMgr_Help&pfSiteID=!i!&pfDocDisp=!d!&pfDocName=DOCUMENTATION_REFNAME&pfDocBodyName=DOCBODY_REFNAME&pfDocLink=FILE_BOOKMARKNAME&pfTimeout=1' "
```

In the string, replace the italicized variables with the following information:

- **DOCUMENTATION_REFNAME** — RefName of the document in which the file appears, as defined in a DOCUMENTATION element; for example:

```
&pfDocName=AboutInform
```

- **DOCBODY_REFNAME** — RefName of the target file to which you want to link, as defined in a DOCTYPE element; for example:

```
&pfDocBodyName=ROADMAP
```

- **FILE_BOOKMARKNAME** — Name of the HTML bookmark within the file. Use this part of the string only when you are linking to a location within the target file. To link to the top of the target file, leave this part of the string out. An example of the &pfDocLink part of the string follows:

```
&pfDocLink=appwindows
```

Example of a complete link

The following text defines a link to a subtopic describing application windows. Online, the link appears as follows:

```
application windows
```

```
<a href=" javascript:top.location.href='./PFTS.dll?pfSessionCode=!s!&pfCommand=TrialMgr_Help&pfSiteID=!i!&pfDocDisp=!d!&pfDocName=AboutInform&pfDocBodyName=ROADMAP&pfDocLink=appwindows&pfTimeout=1' ">application windows</a>
```

Note: The names of HTML files and of bookmarks within those files must not contain spaces or special characters. Only links between files defined with DOCTYPE elements require the special string. To create a link within a single file, use a simple HTML <A HREF> tag to a bookmark.

Enabling the display of the Visit Calculator and sample case report book in the Document window

Using XML definitions and the MedML Installer utility, you can configure an InForm study to include access to the Visit Calculator (Subject schedule) and a sample case report book with blank CRF pages.

- 1 Create DOCUMENTATION definitions for the Visit Calculator and sample case report book.

For more information, see the *Utilities Guide*.

- 2 Associate the new definitions with a study version.

For more information, see *Associating documentation with a study version* (on page 48).

Example of DOCUMENTATION definitions for the Visit Calculator and sample case report book:

```
<DOCUMENTATION REFNAME="Visit"
  DOCNAME="Visit Calculator"
  DOCTYPE="VISITDOC"
  LANGUAGE="en-US"
  HELPTEXT="Click here to view Subject schedule"
</DOCUMENTATION>

<DOCUMENTATION REFNAME="CRB"
  DOCNAME="Sample Book"
  DOCTYPE="CRBDOC"
  LANGUAGE="en-US"
  HELPTEXT="Click here to view Sample Case Book forms"
</DOCUMENTATION>
```

Associating documentation with a study version

You may need to revise the documents associated with a study, including Help documents and sponsor-provided documents.

To implement a new document version:

- 1 Update the files that make up the document.
- 2 If any link counts change, or if you add or remove a file from the document, update the XML file in which you specify the document definition.
- 3 Load the new or updated document files into the database using the MedML Installer utility to process the document definition XML file.
- 4 If you have made any changes to CRF Help, use the MedML Installer utility to reload into the database the definition of each Form to which the changed help text applies.
- 5 Create a new study version to include the updated document by changing the VERSIONDESCRIPTION attribute of the STUDYVERSION definition.
- 6 Associate the new study version with each site at which it will be applied by changing the VERSIONDESCRIPTION attribute of the STUDYVERSIONSITE element to match the STUDYVERSION definition.
- 7 Associate the updated document definition with the new STUDYVERSION definition by changing the VERSIONDESCRIPTION attribute of the STUDYVERSIONDOC element to match the STUDYVERSION definition.
- 8 Use the MedML Installer utility to load the updated definitions into the database in the following order: STUDYVERSION, STUDYVERSIONDOC, STUDYVERSIONSITE.

Randomization

The randomization feature of the InForm application enables users to assign a drug kit to a subject based on a randomization scheme that has been chosen for the study. When randomization configuration is complete, one of the study's forms contains a Drug Kit section. When a user clicks the Randomize button, the InForm application returns a drug kit number, along with associated information about the drug kit, in the Drug Kit section of the form.

Before a user can use the randomization feature, you must perform the following configuration activities:

- 1 In the Central Designer application, include an item with the Special Fields custom property value of **Randomization field (Randomization)** on the form from which users will randomize subjects.

For more information, see the Central Designer *InForm Designer's Guide*.

- 2 In the Central Designer application, create a randomization rule to generate the sequence and drug kit number. The Randomize function is available to help you create the rule.

For more information, see the Central Designer *Rules Reference Guide*.

- 3 Create a randomization sequence for each different list of drug kits used in the study, and install it in the study database using the MedML Installer utility.

The number of drug kit lists depends on the randomization method chosen:

- **Simple Central (Type 1)**—The study uses one list of drug kits. Each new subject is assigned the next sequential drug kit number on the list.
- **Central Stratified (Type 2)**—The study has multiple lists of drug kits. Each new subject is assigned to a drug kit list based on entered subject data. Then, the subject is assigned the next sequential drug kit number on that list.
- **Simple Site (Type 3)**—Each site has a different drug kit list. Each new subject is assigned the next sequential drug kit number on the list for the subject's site.
- **Stratified by Site (Type 4)**—Each site has multiple lists of drug kits. Each new subject is first assigned to the set of lists for the subject's site. Then, the subject is assigned to one of the site's drug kit lists based on entered subject data. Finally, the subject is assigned the next sequential drug kit number on that list.

For more information, see *Randomization sequences* (on page 50).

- 4 Configure the randomization data source manager (COM object) to be used.

For more information, see *Randomization source manager configuration* (on page 52).

- 5 Configure the format of each randomization sequence to be used.

For more information, see *Randomization sequence format configuration* (on page 51).

- 6 Configure the study to use the randomization data source.

For more information, see *Randomization source database setup* (on page 52).

- 7 Create an ODBC connection for each randomization source database.

You can do this manually or by using the pfadmin utility.

For more information, see *ODBC connection for the randomization database* (on page 56).

- 8 Configure the study to use the randomization data source defined for it.

This step is necessary only if you create the ODBC connection manually. If you perform that step by using the pfdamin utility, the utility performs both the DSN creation and configuration automatically.

For more information, see *Configuring the study to use the randomization DSN* (on page 57).

Randomization sequences

A study that uses randomization requires the following sequence definitions:

- One SequenceType definition for the Randomization sequence. This definition is included in the base study and is in the following format:


```
<SEQUENCETYPE SEQUENCETYPENAME="Randomization" />
```
- A Sequence definition for each randomization sequence needed for the study. You need to define one randomization Sequence element for each randomization source. For example:
 - If your study uses the Simple Central randomization method, you need one Sequence definition for the single list of randomization kits.
 - If your study has ten sites and it randomizes by using the Simple Site randomization method, you need ten Sequence definitions, one for each site.
 - If your ten-site study uses the Stratified by Site randomization method, and you categorize subjects into one of three stratifications, you need 30 Sequence definitions.

Each Sequence definition requires the following attributes:

- **SEQUENCENAME**—Name used when referring to the Sequence in the randomization rule and in the randomization source database.
- **SEQUENCETYPENAME**—Randomization, indicating that the sequence is of the Randomization SequenceType.
- **UUID**—Universally Unique Identifier: a string that identifies the element uniquely across all studies, study databases, and machines.

Note: The format of the UUID must follow the format used in the sample UUIDs provided in the Base study. A suggested method for generating UUIDs for Sequence definitions is to copy the UUID of the randomization Sequence definition provided in the core_DefinitionSequences.xml file and change one character for each Sequence definition you create. This ensures that the format is correct and each string is unique. Alphabetic characters in UUIDs should be uppercase.

Example of a randomization sequence

The following sample .xml file illustrates the definition of the Randomization SequenceType and several randomization sequences. The first is for a Simple Central randomization scheme, and the other two define sequences for sample randomization sources used in a Central Stratified randomization scheme.

```
<?xml version="1.0"?>
<MEDMLDATA xmlns="PhaseForward-MedML-Inform4"><!--SequenceType definition -->
<SEQUENCETYPE SEQUENCETYPENAME="Randomization"/>
<!-- Sample Randomization Sequences -->
<!-- Type 1 randomization sequence -->
<SEQUENCE SEQUENCENAME="SimpleCentral"
  SEQUENCETYPENAME="Randomization"
  UUID="6DFF68EE-759C-11D2-938C-00A0C9769A13" />
<!-- Type 2 randomization sequences -->
<!-- Sequence _WT150 for Weight 90 up to 150 -->
<SEQUENCE SEQUENCENAME="CS_WT150"
  SEQUENCETYPENAME="Randomization"
  UUID="C31355CE-7598-11D2-938C-00A0C9769A13" />
<!-- Sequence _WT275 for Weight above 150 up to 275 -->
<SEQUENCE SEQUENCENAME="CS_WT275"
  SEQUENCETYPENAME="Randomization"
  UUID="D5270A30-7598-11D2-938C-00A0C9769A13" />
</MEDMLDATA>
```

Randomization sequence format configuration

In the InForm application, you can configure the format of screening numbers, subject numbers, and randomization numbers. To specify the randomization sequence number format, include a SYSCONFIG component for the sequence number format in the .xml file used to set configuration variable values. The following default format appears in the core_SystemConfig.xml file in the base study:

```
<SYSCONFIG CONFIGNAME="RandSimpleCentral"
  TYPE="0"
  VALUE="SC:RND-%q"/>
```

Randomization number configuration is required. For more information, see *Numbering* (on page 65).

Randomization source manager configuration

The randomization data source is a customer-defined database that contains the drug kit information for each list of drug kits in use in the study. The randomization source manager is implemented as a COM object that accesses the randomization data source database. The randomization source manager provided with the InForm application accesses the database through ODBC.

The randomization source manager for the InForm application supports all four randomization methods and Microsoft Access or Oracle randomization source databases. To use the randomization source manager, add the configuration name and COM ProgID of the randomization source manager to the system configuration table by using the following statement in the .xml file used to set values in the system configuration table:

```
<SYSCONFIG CONFIGNAME="RandomizationSrc"  
  TYPE="0" VALUE="InForm.PFRandomization.1" />
```

This statement appears in the core_SystemConfig.xml file in the base study.

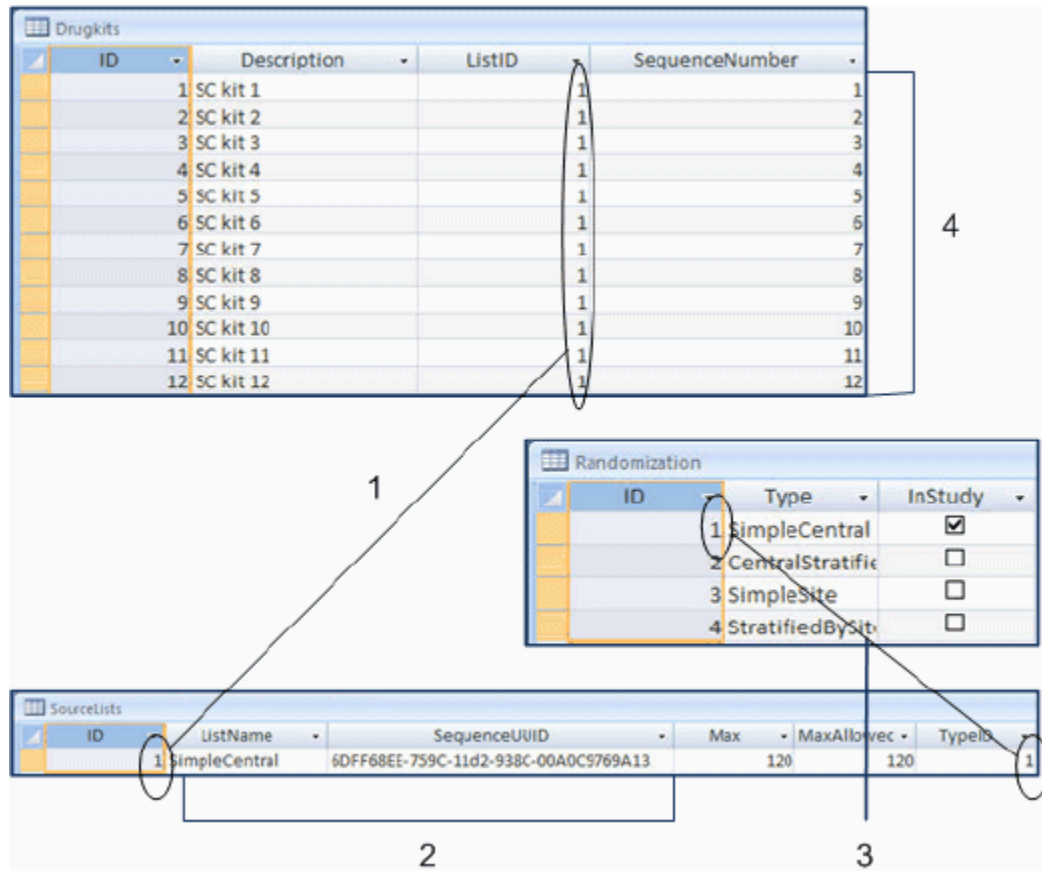
Randomization source database setup

The randomization data source is a custom database that contains the drug kit information for each list of drug kits in use in the study. The InForm application supports randomization source databases implemented with Microsoft Access or Oracle.

Note: A sample Microsoft Access database is included in the files for the PFST55sample study. To use an Oracle randomization database, create an Oracle schema with a table structure that is identical to the sample Microsoft Access database.

The database has the following tables:

- Randomization
- Sourcelists
- Drugkits



1—Drugkits.ListID maps to Sourcelists.ID.

2—ListName and SequenceUUID are from the SEQUENCENAME and UUID attributes of the SEQUENCE XML definition.

3—Randomization.ID maps to Sourcelists.TypeID.

4—Each SEQUENCE definition has one set of sequence numbers. In this example, all drug kits are for the SimpleCentral SEQUENCE definition and randomization type.

Randomization table

The Randomization table indicates the randomization types that are in use in the study. This table has the following columns:

Column name	Data type	Description
ID	Number, primary key	Number that corresponds to the randomization TypeID in the SOUCELISTS table: <ul style="list-style-type: none"> • 1—Simple Central • 2—Central Stratified • 3—Simple Site • 4—Stratified by Site
Type	Text	Name of the randomization type; one of the following: <ul style="list-style-type: none"> • SimpleCentral • CentralStratified • SimpleSite • StratifiedBySite
InStudy	Boolean	If true, indicates that the corresponding randomization type is being used in the current study.

Sourcelists table

The **Sourcelists** table corresponds to the randomization SequenceTypes entered into the InForm database with XML and the MedML Installer utility. This table has one row for each randomization list used in the study. The table has the following columns:

Column name	Data type	Description
ID	Autonumber, primary key	Sequential list identification number that maps to the ListID in the DrugKits table.
ListName	Text	Name of the drug kit list. The randomization rule must populate the Randomization.Source property with this name.
SequenceUID	Text	UUID of the SequenceType to which the drug kit list corresponds in the InForm software database. Note: The InForm software and the MedML Installer utility convert alphabetic characters in UUIDs to uppercase.
Max	Number	Maximum number of drug kits.
MaxAllowed	Number	Maximum number of drug kits that can be used during the study.

Column name	Data type	Description
TypeID	Number	<p>Identification code of the randomization type. This value maps to the ID column in the Randomization table:</p> <ul style="list-style-type: none"> • 1—Simple Central • 2—Central Stratified • 3—Simple Site • 4—Stratified by Site

Drugkits table

The Drugkits table holds drug kit information for each randomization source list. This table has the following columns.

Note: Special configuration may be required if you are using the Central Stratified randomization type. For more information, see *Setting up Central Stratified randomization* (on page 56).

Column name	Data type	Description
ID	Autonumber	Sequential drug kit identification number.
Description	Text	Drug kit information. If the randomization rule so specifies, this information is appended to the randomization number that the InForm application generates.
ListID	Number	Number that maps to the ID in the SourceLists table and enables the randomization source data manager to get the correct drug kit string.
SequenceNumber	Number	Randomization sequence number in the list identified by the ListID number.

Populating randomization source database tables

For each study, populate the tables of the randomization source database with the information about each drug kit that will be available for use in the study:

- In the **Randomization table**, specify the type of randomization to be used in the study.
- In the **SourceLists table**, enter the source name and sequence UUID, copied from the XML file used to enter SequenceTypes into the InForm database, for each drug kit list.
- In the **Drugkits table**, enter information about each drug kit to be used.

Note: As a suggested convention, include the name of the study in the name of the randomization source database, and store the database in the study folder in the InForm installation tree.

A sample Microsoft Access database is distributed with the PFST55sample study and provides a template for the randomization source database. The MDB file for the sample database is located in

the \InForm\Sample_PFST60\Rand folder of the InForm installation.

Note: The randomization source database must physically reside on the same machine as the InForm server; you cannot map it to the InForm server machine by using a network drive.

Setting up Central Stratified randomization

For the Central Stratified type of randomization, special configuration is necessary if you want the sequence numbers in each drug kit list to start with a number other than 1. In the Central Stratified type of randomization, the study has multiple lists of drug kits. Each new subject is assigned to a drug kit list based on entered subject data. Then, the subject is assigned the next sequential drug kit number on that list.

Under Central Stratified randomization, unless each set of sequence numbers in the Drugkits table in the randomization database starts at 1, randomization fails when you try to randomize a study subject.

If you want your sequence numbers to start with a number other than 1:

- 1 Set up the Drugkits table so that:
 - Each set of sequence numbers in the SEQUENCENUMBER column starts with 1.
 - The sequence numbers you want to use are in the DESCRIPTION column.
- 2 In the rule that assigns the sequence number when a subject is randomized, use the GetNextKit method so that the values in the DESCRIPTION column are included in return value provided by the KitInfo variable.

ODBC connection for the randomization database

To configure an ODBC connection for a Microsoft Access or Oracle randomization data source, do either of the following:

- Create a randomization DSN manually, by using the ODBC manager of Microsoft Windows.
For more information, see *Creating an ODBC connection using the Windows ODBC Manager* (on page 56)
- Let the pfadmin utility create the randomization DSN automatically.
For more information, see *Creating an ODBC connection with the pfadmin utility* (on page 58).

You must create a separate DSN for each study's randomization database.

Creating an ODBC connection using the Windows ODBC Manager

- 1 Click **Start > Programs > Administrative Tools > Data Sources (ODBC)**.
- 2 Select the **System DSN** tab.
- 3 Click **Add**.
- 4 In the Create New Data Source window, select **Microsoft Access Driver**.
- 5 Click **Finish**.
- 6 Configure the data source.

For more information, see *Configuring a randomization data source* (on page 57).

Configuring a randomization data source

- 1 In the ODBC Text Setup dialog box, enter the DSN of the randomization database as the **Data Source Name**.

As a suggested convention, include the name of the study in the name of the randomization source database; for example, if the study name is PF304, you can name the randomization DSN PF304RND.

- 2 In the **Database** section of the dialog box, click **Select Directory**, and select the randomization source database from the directory where it is stored.
- 3 Click **OK** in each dialog box.

Configuring the study to use the randomization DSN

After manually creating a randomization source DSN for a study, you must configure the study to use the DSN.

Note: This step is necessary only if you use the Control Panel ODBC manager to create the randomization DSN. If you use the pfadmin utility, it configures the study to use the randomization DSN.

Configure each study separately. Use pfadmin to do this:

- 1 Open a Command Prompt window.
- 2 Change to the \bin directory in the InForm software installation.
- 3 If you have a Microsoft Access randomization source database, enter the following command:

```
pfadmin CONFIG Trial <StudyName> /RndDSN DSN
```

- *StudyName* is the name of the study.
- *DSN* is the name of the randomization source DSN. For more information, see *ODBC connection for the randomization database* (on page 56).

or

If you have an Oracle randomization source database, enter the following command:

```
pfadmin CONFIG Trial <StudyName> /RndDSN DSN
```

- *StudyName* is the name of the study.
- *DSN* is the name of the randomization source DSN. For more information, see *ODBC connection for the randomization database* (on page 56).

When prompted, enter:

- The name of the study schema owner.
- The password of the study schema owner.

Note: The schema owner UID and PID must begin with a letter and contain alphabetic or alphanumeric characters. Do not use all numeric characters.

Examples:

- Microsoft Access randomization source database:

```
PFAdmin config trial pfst55/RndDSN pfst60RND
```
- Oracle randomization source database:

```
PFAdmin config trial pfst55/RndDSN pfst60RND
```

Creating an ODBC connection with the pfadmin utility

The pfadmin utility is a command-line utility included in the InForm software. To use pfadmin to create a DSN for the randomization database:

- 1 Open a Command Prompt window.
- 2 If you have a Microsoft Access randomization source database, enter the following command:

```
pfadmin CONFIG Trial <StudyName> /Rnd [<MDBFilePath>]
```

- *StudyName* is the name of the study.
- *MDBFilePath* is the full pathname of the Microsoft Access or Oracle randomization source database.

or

If you have an Oracle randomization source database, enter the following command:

```
pfadmin CONFIG Trial <StudyName> /Rnd [<MDBFilePath>]
```

- *StudyName* is the name of the study.
- *MDBFilePath* is the full pathname of the Microsoft Access or Oracle randomization source database.

When prompted, enter:

- The name of the study schema owner.
- The password of the study schema owner.

For example:

```
PFAdmin config trial PFST55/Rnd  
E:\PF\InForm\Sample_PFST60\Rand\RndPFST60.mdb
```

Home page

A Home page is the web page that appears when a user initially logs in to an InForm study. You can set the Home page at the study, site, or user level.

Setting up an InForm Home page

You can set up Home pages in two ways:

- Create an HTML or ASP page for the study.
For more information, see *Setting up a custom Home page* (on page 59).
- Designate the InForm Portal application as a user's Home page.
For more information, see the *Portal Administration Guide*.

A forms designer is usually responsible for creating the Home page and placing it in the study hierarchy directory. The release engineer is usually responsible for adding the Home page to the study.

Setting up a custom Home page

You can create a custom Home page and set it up to appear when a user logs in to a study.

The Home page can be either an HTML or ASP file. Use ASP if you want dynamic information from the InForm database to display on the Home page.

Note: If you are using ASP, set the study web server to have Read/Write and execution permissions through the MMC (Microsoft Management Console). Then, select the ASP directory (located in the Custom folder) to use those permissions.

Each user can have a unique Home page. Home pages must be accessible to the web server. A custom directory is automatically created whenever you set up a study in the Central Designer application, or with the pfadmin utility.

The virtual directory for each study is located in the PFInForm \Trials directory. You can copy these pages into the custom folder for the study, then to the virtual custom directory using Windows Explorer or the following **xcopy** command:

```
xcopy <drive:\path to study custom pages\*.* ><drive:\path to study custom folder\ >/e
```

- **xcopy** is the Windows command.
- <drive:\path to study custom pages*.*> is the drive and path to the custom Home pages created by the clinical study developer.
- <drive:\path to study custom folder\> is the drive and path to the \Custom folder for the InForm study.
- /e is an option that indicates to copy directories and subdirectories, including empty ones.

Secure Sockets Layer (SSL)

Before SSL can be active in a study, the environment must be set up to support SSL.

For more information, see the *Installation Guide*.

To enable SSL in a study, enable the InForm SSL system configuration option through the InForm user interface or the MedML Installer utility.

Enable SSL through the InForm Admin user interface

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

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

Enable SSL with the MedML Installer utility

- 1 Create an XML file with the following entry:

```
<MEDMLDATA>
<SYSCONFIG CONFIGNAME="SSLFLAG" TYPE="0" VALUE="1" />
</MEDMLDATA/>
```
- 2 If you are setting up the Reporting and Analysis module, include the following definition in the XML file, and change the value of URL for the reporting server to start with https://.

```
<SYSCONFIG CONFIGNAME="REPORTINGSERVER" TYPE="0" VALUE="https://<url>" />
```
- 3 Stop the study with the following command:

```
pfadmin stop trial <studyname>
```
- 4 Install the configuration options with the MedML Installer utility.
- 5 Restart the study with the following command:

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


Enabling email notification

In the Central Designer application, study designers can configure rules to trigger email notification when they fire.

To enable email notification in an InForm study:

- 1 Make sure that Microsoft SMTP is installed.
Because this is a pre-installation requirement for the InForm software, SMTP should already be available.
- 2 Set the routing option for mail delivery.
- 3 Set the smart host or remote domain of the SMTP site to point to the email gateway for message transmissions.
- 4 Register the cdonts.dll on the server hosting the InForm study.

For more information, see *Registering the cdonts.dll file* (on page 61).

Note: Although the InForm application can be configured to send emails from the trial server, the emails are not able to be encrypted. Customers must consider this fact when designing email notifications, and should not include any data in an email that is required to be encrypted.

Registering the cdonts.dll file

The execution plan for email in the sample study calls the **cdonts.dll** file to send email. cdonts.dll is no longer supported by Microsoft, and calls that use cdonts.dll do not send mail unless you install the cdonts.dll file. Therefore, if you use the sample study as a model for setting up email notification, must register the cdonts.dll file.

- 1 Install Microsoft SMTP server, and make sure it is running.
- 2 Download and unzip cdonts.dll to the C:\Windows\System32 folder. cdonts.dll is available at many Internet download sites.
- 3 Register the cdonts.dll component on the InForm study server.
 - a Click **Start > Run**.
 - b Type:
`regsvr32 c:\Windows\system32\cdonts.dll`
 - c Click **Enter**.

Customer-Defined Database (CDD)

A CDD is an extract of clinical data from a study database. You can use a CDD to pass data into customer statistical analysis tools or other external programs. You can use either the Reporting and Analysis module or a CDD, or both, to extract data from a study.

Comparison of CDD and Reporting and Analysis module	
CDD	Reporting and Analysis module
Clinical data only	Clinical and operational data
Database structure defined by customer	Database structure based on study design
Mappings defined in Central Designer application	Mappings defined in Reporting and Analysis user interface
Requires external analysis tools	Includes report generation tools

Creating and installing CDD mappings

CDD mappings specify the source of data in a study and the target tables and columns in a CDD. You create CDD mappings by setting up a logical schema in the Central Designer application.

For more information, see the Central Designer *InForm Designer's Guide*.

CDD mappings are installed in a study when you run a Central Designer deployment package.

For more information, see *Installing a study* (on page 27).

Configuring a CDD

Note: It is recommended that the default tablespace for the CDD user should not be the InForm tablespace.

- Using the following command, make sure that the study is running.

```
pfadmin view service
```

- Create a CDD schema with the DSN name, DSN user, and DSN password:

```
pfadmin setup cdd <CDDRefName> <TrialName> /DB <oracle_connection_string>
<DSN>
```

When prompted, enter:

- The name of the study schema owner.
- The password of the study schema owner.

Note: The schema owner UID and PID must begin with a letter and contain alphabetic or alphanumeric characters. Do not use all numeric characters.

For example:

```
pfadmin setup cdd PFSTCDD pfst55/DB testmachine_dev1 pfstcdd
```

- 3 Make the online CDD functionality transactional:

```
pfadmin config cdd <TrialName> <CDD_DSN> [Active | Inactive]
```

For example:

```
pfadmin config cdd pfst55pfstcdd active
```

- 4 Enable online CDD functionality for the study:

```
pfadmin config cdd TrialName [Enable | Disable]
```

For example:

```
pfadmin config cdd pfst55enable
```

- 5 In a multilingual study, specify the study locale to use for the unit symbol translation that is stored in the CDD column for the unit symbol:

```
pfadmin config cdd <TrialName> <CDD_DSN> <StudyLocale>
```

For example:

```
pfadmin config cdd pfst55pfstcdd es-ES
```

For more information, see *pfadmin* (on page 141).

Reports

To ensure that data is reported appropriately in standard and ad hoc InForm reports, observe the study design considerations described in this section.

Study version acceptance dates

Report designers can report on the following site dates:

- **Site Activation Date**—The projected date for the activation of the site. This date is specified in the definition of the site and reflects an estimate of when the activation might occur, not the actual activation date.

You can specify site activation date by using the `STARTDATE` attribute of the `<SITE>` element in the study metadata.
- **Current Site Acceptance Date**—The date and time that a site accepts the current study version. This date is one of the following:
 - The specified value of the `ACCEPTDATE` attribute of the `<STUDYVERSIONSITE>` element defined in the study metadata. The `<STUDYVERSIONSITE>` element associates a site with a particular study version.
 - The system date and time when a user selects the current study version on the Site details page of the InForm application Admin user interface.
- **Sponsor Date**—The date that appears in the annotated view of the study. In the Central Designer application, you can specify this date and time (in GMT) by using the Sponsor Date property of the study definition. The default is the date and time when you generate the study XML by generating a Central Designer deployment package. In the MedML definition of the study version, this date is specified in the `SPONSORDATE` attribute of the `<STUDYVERSION>` element.

Numbering

The InForm application automatically generates screening and enrollment numbers. Additionally, the InForm application can generate drug kit numbers when subjects are randomized. Each of these numbering types is configurable.

To set up numbering in the InForm application, the following elements are required:

- **SEQUENCETYPE**—Defines types of sequence numbers. The default sequence types are part of the base installation of the InForm application.
- **SEQUENCE**—Defines specific sequences within sequence type. The default sequences are also part of the base installation.
- **SYSCONFIG**—Defines a system configuration variable that specifies the scheme for formatting a sequence number.

Managing numbering

The InForm application automatically generates screening and enrollment numbers. Additionally, the InForm application can generate drug kit numbers when subjects are randomized. Each of these numbering types is configurable.

To set up numbering in the InForm application, the following elements are required:

- **SEQUENCETYPE**—Defines types of sequence numbers. The default sequence types are part of the base installation of the InForm application.
- **SEQUENCE**—Defines specific sequences within sequence type. The default sequences are also part of the base installation.
- **SYSCONFIG**—Defines a system configuration variable that specifies the scheme for formatting a sequence number.

Default sequence types and sequences

The base study definition that is installed when you execute a deployment package includes default sequence type and sequence definitions.

Default SEQUENCETYPE definitions:

```
<SEQUENCETYPE SEQUENCETYPENAME="Screening" />
<SEQUENCETYPE SEQUENCETYPENAME="Enrollment" />
<SEQUENCETYPE SEQUENCETYPENAME="Randomization" />
```

Default SEQUENCE definitions for screening, enrollment, and a Simple Central randomization scheme:

```
<SEQUENCE SEQUENCENAME="Screening Number Sequence"
  SEQUENCETYPENAME="Screening"
  UUID="F7F1B3B8-0B5C-11D2-A418-00A0C963E0AC" />
<SEQUENCE SEQUENCENAME="Enrollment Number Sequence"
  SEQUENCETYPENAME="Enrollment"
  UUID="EB75B898-078B-11D2-A417-00A0C963E0AC" />
SEQUENCENAME="Simple SimpleCentral"
SEQUENCETYPENAME="Randomization"
UUID="4F4A0246-5009-11D2-931C-00A0C9769A13" />
```

Creating sequences

If you configure your study to support a different randomization scheme, you must create a sequence definition for that scheme using the following MedML syntax:

```
<SEQUENCE
  UUID=" id "
  SEQUENCENAME=" name "
  SEQUENCETYPE=" name " />
```

Specifying sequence number format

The format of screening numbers, subject enrollment numbers, and randomization numbers is specified with a formatting string.

- Specification of numbering formats for screening and enrollment numbers is optional.
- If you configure the InForm application to generate randomization drug kit numbers, specification of a randomization numbering format is required.

Note: Subject numbers can be automatically generated by the InForm application, using the format that you specify as described in this section, or you can configure the InForm application to enable site personnel to assign subject numbers manually.

The format of each type of sequence number can contain fixed text, site name, stratification code, and a sequential number that can also include a text string. These formatting specifications are in the following order:

[*SPR*]:[*string*][%][*flag*][*width*][*type*][*string*]

- *SPR*—Code that indicates the type of screening, subject enrollment, or randomization number. Codes are not case-sensitive. For more information, see **Sequence number codes** (on page 67).
- *string*—Text string that appears at the beginning of each generated number.
- %—Required character preceding each flag/width/type specification.
- *flag/width/type*—A series of specifications that indicates how the InForm application substitutes values in each generated number. You can include multiple flag/width/type specifications, where each specification includes the following values:
 - *flag*—Character that specifies a prefix used to fill in the numerical portion of the sequence number to maintain the number of characters specified in the width variable. For more information, see **Flag characters** (on page 67).
 - *width*—Minimum number of characters in the numerical portion of the sequence number, to be left-filled by the character specified in the flag variable. This specification is optional.
 - *type*—Code that indicates the inclusion of the site name, stratification code, and sequential number in the sequence number. Codes are not case-sensitive. For more information, see **Type codes** (on page 67).
- *string*—Text string added to the end of each generated number.

Sequence number codes

Code	Type of sequence number
SC	Simple Central randomization —The study uses one list of drug kits. Each new subject is assigned the next sequential drug kit number on the list.
CS	Central Stratified randomization —The study has multiple lists of drug kits. Each new subject is assigned to a drug kit list based on entered subject data. Then, the subject is assigned the next sequential drug kit number on that list.
SS	Simple Site randomization —Each site has a different drug kit list. Each new subject is assigned the next sequential drug kit number on the list for the subject's site.
SR	Stratified by Site randomization —Each site has multiple lists of drug kits. Each new subject is first assigned to the set of lists for the subject's site. Then, the subject is assigned to one of the site's drug kit lists based on entered subject data. Finally, the subject is assigned the next sequential drug kit number on that list.
S1	Cross-site screening number —Screening numbers are assigned sequentially across the study without regard to which site screens the candidate.
SN	Site-based screening number —Each site has a separate sequence of screening numbers.
P1	Cross-site subject number —Enrollment numbers are assigned sequentially across the study without regard to which site enrolls the subject.
PN	Site-based subject number —Each site has a separate sequence of enrollment numbers.

Flag characters

Character	Description
0	The InForm application adds zeroes to the left of the numerical sequence until the specified width is reached.
#	The InForm application adds pound signs to the left of the numerical sequence until the specified width is reached.
-	The InForm application adds hyphens to the left of the numerical sequence until the specified width is reached.

Type codes

Code	Description
S	Includes the site mnemonic. This type is optional and can be used in screening, subject, and randomization sequence numbers.
T	Includes the stratification code. This type applies to randomization sequence numbers and is required if the randomization type is Central Stratified or Stratified by Site.

Code	Description
Q	Includes a numeric value assigned sequentially to each new subject who is screened, enrolled, or randomized. This type is required for all sequence number format definitions.

Examples

- SC:RND-%q

Randomization sequence number for a Simple Central randomization scheme. Each number consists of the string RND and a sequential number, for example: RND-12.
- CS:RND-%t-%q-PF105

Randomization sequence number for a Central Stratified randomization scheme. Each number consists of the string RND, the stratification code, a sequential number, and the study name, PFST, for example: RND-CS_WT150-12-PFST

SN:SCR-%s-%05q—Screening sequence number. Each number consists of the string SCR, the site mnemonic, and a five-digit sequential number that is left-filled with zeroes, for example: SCR-PF-00012.

Note: Randomization number configuration is required, if you are configuring your study to support generating drug kit numbers. If you do not configure subject and screening number formats, the InForm application uses the following default formats:

Screening number—SN:SCR-%s-%q (the string SCR, followed by site mnemonic, followed by generated number)

Subject enrollment number—PN:ENR-%s-%q (the string ENR, followed by site mnemonic, followed by generated number)

Installing sequence number formats

To install the sequence number format in the database, include a SYSCONFIG element for the sequence number format in the XML file used to set configuration variable values. The following shows the default format for drug kit numbers under Simple Central randomization that appears in the core_SystemConfig.xml file in the XMLBase directory of the InForm installation.

```
<SYSCONFIG CONFIGNAME="RandSimpleCentral"
  TYPE="0"
  VALUE="SC:RND-%q" />
```


Subject record transfer affidavit

The subject record transfer feature of the InForm application enables users to transfer a subject's clinical record to a new site. This feature is useful in situations where:

- A subject moves to a different location.
- A subject moves seasonally to another address.
- An investigator leaves a study and closes down a site.

When a user transfers a subject to another site, the InForm application displays an affidavit that provides guidance on the responsibility of the administrative user regarding moving a subject from one site to another. The Subject Record Transfer page in the base study provides default affidavit text.

Customizing the subject record transfer affidavit

- 1 Copy the **sysform_PatientSiteChange.xml** file in the \InForm\XMLBase folder of the InForm software installation to the \Custom folder for your study.

Do not make changes directly in the system_PatientSiteChange.xml file.

- 2 Edit the affidavit portion of the <FORM> definition in the copy of the sysform_PatientSiteChange.xml file.

Within the affidavit text, you can use HTML characters for formatting and highlighting.

- 3 Add the edited copy of the file to the RSP file you use to load your study metadata into the study database.

Subject transfer affidavit XML

The <FORM> tag for the Subject Record Transfer page follows with the default affidavit text highlighted.

Caution: Do not change anything in the form definition other than the highlighted text.

```
<FORM REFNAME="PSC_FORM" UUID="3389a7c6-cba5-46f2-b48f-8a034a28a349"
NOTE="<TABLE BORDER="0" CELLPADDING="4" CELLSPACING="0" WIDTH="100%"
ID="Table1"> <TR> <TD CLASS="ttl"><B>Patient Record Transfer Affidavit: </B></TD>
</TR> <TR> <TD><TABLE CLASS="tbl" BORDER="1" CELLPADDING="4"
CELLSPACING="0" WIDTH="100%" BORDERCOLOR="#003366" ID="Table2"> <TR>
<TD><TABLE BORDER="0" CELLPADDING="4" CELLSPACING="0" WIDTH="100%"
ID="Table3"> <TR> <TD><P>The sponsor takes responsibility for and has clear
processes/procedures in place around the handling of patient transfers and coordinating across
sites to ensure that:</P> <P>1. The originating site produces or receives a certified copy of the
current CRF data created for all transferred patients prior to the transfer.</P> <P>2. The target site
accepts responsibility for the management of any outstanding queries and data cleaning following
the patient record transfer, since the originating site will no longer have modification access.</P>
<P>3. Trial version differences due to protocol amendments or country specific data requirements are
acknowledged and the sponsor has appropriate regulatory approvals in place to support patient
record transfer.</P> <P>4. The patient(s) being transferred are fully enrolled and a Case Book has
been created for each patient.</P></TD> </TR> </TABLE> </TABLE> </TABLE>
TITLE="Patient Record Transfer Form" MNEMONIC="PSC_FORM" QUESTIONWIDTH="30"
CONTROLWIDTH="70" TYPE="CUSTOMTRIAL">

<SECTIONREF REFNAME="PSC_SECT2" />

<SECTIONREF REFNAME="PSC_SECT" />

</FORM>
```

Predefined lists in system forms

The InForm application provides several predefined lists that specify default text for such things as rights, comments, and query responses. You define the entries in the change reason list of the Data Values page for changes to items and for entries in the query text list on the Queries page.

Although you should not manipulate most of these lists directly, you can modify the default text that displays in the drop-down lists for:

- Reasons for change.
- Reasons for clearing a CRF.
- Reasons for editing an item.
- Query responses (not query states).

Note: These defaults are base components and are part of the study. If you modify the settings in these files, you must reinstall the XML into the study in order for the changes to take effect.

The following table lists the text that you can change and the files in which you can make the changes.

Text to customize	File to edit
Reasons for change	XMLBase\sysform_EditItem.xml
Reasons for clearing a CRF	XMLBase\sysform_ClearCRF.xml
Reasons for editing an item	XMLBase\sysform_ItemEditReasons.xml
Query responses	<ul style="list-style-type: none"> • Resources\Enu\pfscript.js • Resources\Enu\Templates\PDFPage.xsl • Resources\Enu\resources.xml • Resources\Jpn\pfscript.js • Resources\Jpn\Templates\PDFPage.xsl • Resources\Jpn\resources.xml

Allowable changes include:

- Adding new label text values.
- Removing an existing option (ELEMENTREF).
- Replacing an existing text value with a new text value.

Caution: Do not delete an existing PFELEMENT definition for a predefined list, even if you remove the corresponding ELEMENTREF tag.

Changing reason text for clearing a CRF or editing an item

You can add new text values to predefined lists, and you can remove existing values or replace them with new values by changing the definitions that the InForm software references. You cannot physically delete an existing text definition in a predefined list (in other words, *do not* delete the PFELEMENT definitions of the existing values).

Note: If you change the system forms in the XML_Base folder of the InForm installation, as described in this procedure, *all* studies that you install subsequently reflect the customized reason text. To customize the reason text for only one study, save the customized system form XML files in a different location from the XML_Base folder, and install them from the saved location with the MedML Installer utility.

To change a reason text value:

- 1 Make a backup copy of the file for the list to edit.
 - **sysform_ClearCRF.xml**—Contains the list of reasons for clearing a CRF.
 - **sysform_EditItem.xml**—Contains the list of reasons for editing a CRF item.
- 2 Open the file.
- 3 Create a new PFELEMENT definition for the new text you want to add. For example,

```

<PFELEMENT REFNAME="CLEARCRF_WRONGSUBJECT"
  LABEL="Wrong Subject"
  TYPE="STRING"
  VALUE="Wrong Subject" />
  <TRANSLATIONS>
    <TRANSLATION NAME="LABEL" DISPLAYTEXT="<Japanese_text>"
      LOCALE="ja-JP" />
  </TRANSLATIONS>

```

4 Edit the list of ELEMENTREF definitions in the appropriate drop-down list definition:

- To add a new text value, add a new ELEMENTREF definition that uses the REFNAME value you defined in step 2. Be sure to specify the order in which you want the new text to appear in the drop-down list. For example, add a new selection for a Severe Transcription Error in the second position in the drop-down list:

```

<PULLDOWNCONTROL REFNAME="CLEARCRF_CHANGEREASONPULLDOWN"
  UUID="730C92AD-33AE-11D3-8D93-00902757C687"
  NAME="CLEARCRF_CHANGEREASONPULLDOWN">
  <ELEMENTREF REFNAME="CLEARCRF_TRANSCRERROR" ORDER="1" />
  <ELEMENTREF REFNAME="CLEARCRF_WRONGSUBJECT"
    ORDER="2" />
  <ELEMENTREF REFNAME="CLEARCRF_NEWINFO" ORDER="3" />
  <ELEMENTREF REFNAME="CLEARCRF_CHANGEDINFO" ORDER="4" />
</PULLDOWNCONTROL>

```

- To replace an existing text value with a new one, edit the ELEMENTREF definition that refers to the old value by changing the REFNAME attribute to refer to the new value you defined in step 2. For example, to substitute the new text for a Severe Transcription Error in place of the original “Transcription Error,” you would change the XML to look like this:

```

<PULLDOWNCONTROL REFNAME="CLEARCRF_CHANGEREASONPULLDOWN"
  UUID="730C92AD-33AE-11D3-8D93-00902757C687"
  NAME="CLEARCRF_CHANGEREASONPULLDOWN">
  <ELEMENTREF REFNAME="CLEARCRF_WRONGSUBJECT"
    ORDER="1" />
  <ELEMENTREF REFNAME="CLEARCRF_NEWINFO" ORDER="2" />
  <ELEMENTREF REFNAME="CLEARCRF_CHANGEDINFO" ORDER="3" />
</PULLDOWNCONTROL>

```

- To remove an existing text value, delete the ELEMENTREF definition that refers to it. Update the ORDER attributes of the remaining ELEMENTREF definitions to reflect the change. For example, to cause the InForm application to ignore both transcription error messages, change the XML to look like this:

```

<PULLDOWNCONTROL REFNAME="CLEARCRF_CHANGEREASONPULLDOWN"
  UUID="730C92AD-33AE-11D3-8D93-00902757C687"
  NAME="CLEARCRF_CHANGEREASONPULLDOWN">
  <ELEMENTREF REFNAME="CLEARCRF_NEWINFO" ORDER="1" />
  <ELEMENTREF REFNAME="CLEARCRF_CHANGEDINFO" ORDER="2" />
</PULLDOWNCONTROL>

```

Note: Take care not to remove or replace any ELEMENTREF definitions for query states.

- 5 Save your changes.
- 6 Install the updated system forms by using the MedML Installer utility.

Changing query text

You can change the text of standard query reasons and responses by editing the following files in the InForm installation tree:

- \Resources\Enu\pfscript.js
- \Resources\Enu\Templates\PDFPage.xsl
- \Resources\Jpn\pfscript.js
- \Resources\Jpn\Templates\PDFPage.xsl

Note: Standard query reasons and responses appear in the user's product locale in the Reporting and Analysis module. If you customize query reasons and responses, the custom text does not appear in the user's product locale in the Reporting and Analysis module.

Each set of strings, prefixed by a number in brackets, appears under different conditions in an InForm study. For more information, see *Types of query text strings in the pfscript.js and PDFPage.xsl files* (on page 74).

- 1 Make a backup copy of each **pfscript.js** and **PDFPage.xsl** file.
- 2 In the QO section of each pfscript.js and PDFPage.xsl file, add, edit, or remove query text strings as desired.

Separate response strings with a comma and surround each string with double quotation marks.

The QO section of the pfscript.js and PDFPage.xsl files follows:

```
QO=[[1,2],["Item incomplete","Data does not match source","Missing
units","Make text more specific"]],
[[7],["Original value is correct","Changed data per query","Query is
ambiguous","Data is not in patient record","Measurement skipped on this
visit"]],
[[3],["Response from site required"]],
[[4],["Query is invalid or does not apply","Query can be addressed
internally"]],
[[5,6],["Response does not satisfy query"]],
[[8],["Response satisfies query"]],
[[9],["State chosen is acceptable"]]]
```

- 3 Use the following XML to install the updated pfscript.js files with the MedML Installer utility:

```
<RESOURCEDATA xmlns="PhaseForward-MedML-Inform4">
<RESOURCE
  FILENAME="pfscript.js"
  UUID="PF_RESOURCE_GENERIC_SCRIPT_MAIN"
  DESCRIPTION="Main Script"
  DATATYPE="SCRIPT"
  LANGUAGE="English"/>
<HTMLTEMPLATE
  TEMPLATENAME="PF_SCRIPT_MAIN"
  BROWSERNAME="GENERIC"
  RESOURCEUUID="PF_RESOURCE_GENERIC_SCRIPT_MAIN"/>
</RESOURCEDATA>

<RESOURCE
  FILENAME="pfscript.js"
  UUID="PF_RESOURCE_GENERIC_SCRIPT_MAIN"
  DESCRIPTION="Main Script"
  DATATYPE="SCRIPT"
  LANGUAGE="Japanese"/>
  <HTMLTEMPLATE
  TEMPLATENAME="PF_SCRIPT_MAIN"
  BROWSERNAME="GENERIC"
  RESOURCEUUID="PF_RESOURCE_GENERIC_SCRIPT_MAIN"
```

/>

Types of query text strings in the pfscript.js and PDFPage.xsl file

Identifier	Default strings	When used
[1,2]	["Item incomplete","Data does not match source","Missing units","Make text more specific"]	Creating a query.
[3]	["Response from site required"]	Placing a candidate query in open state.
[4]	["Query is invalid or does not apply","Query can be addressed internally"]	Deleting a query.
[5,6]	["Response does not satisfy query"]	Reissuing a query.
[7]	["Original value is correct","Changed data per query","Query is ambiguous","Data is not patient record","Measurement skipped on this visit"]	Responding to a query.
[8]	["Response satisfies query"]	Closing a query.
[9]	["State chosen is acceptable"]	Resolving a conflict.

Itemset source verification option

The default behavior for source verification (SV) of itemset items is that when a user adds data to or edits an itemset item, and the itemset was previously marked source verified, the SV status of the itemset changes to not source verified. This is true whether or not the updated item is defined to require SV.

By creating and setting an entry for a registry key, you can configure a single study or all studies on a server so that the SV status of an itemset is not unset when a user adds data to or edits an itemset item that does not require SV.

- 1 Create a key called PFMngrTrial in the following registry folder:

```
HKEY_LOCAL_MACHINE\SOFTWARE\ORACLEHS\InForm
```

- 2 Create a DWORD Value with one of the following names:

- *<studyname>*_ItemSetUNSVRequiredOnly—Sets the itemset SV behavior for the specified study.
- ItemSetUNSVRequiredOnly—Sets the itemset SV behavior for all studies that are running on the machine.

- 3 Change the value of the entry to a value other than 0.

If the *<studyname>*_ItemSetUNSVRequiredOnly or ItemSetUNSVRequiredOnly entry has a value other than 0, adding data to or editing an item in an itemset that was previously marked source verified does not unset the SV status if the updated item does not require SV.

Versioning

Managing study versions

Managing study versions with the Central Designer application requires little intervention in the study. You can control the behavior of new study versions using full and incremental deployment packages. You can revise the study version without updating, but this requires manual intervention after the Central Designer deployment package is installed.

Creating a new deployment package

For studies created in the Central Designer application, you manage the study versions and revisions in the Central Designer user interface. When you deploy the study to the InForm application the study version is the revision of the study design object in your study and includes:

- Title of the study design object.
- Revision number.
- Locale.

When you create a new version of a form, you must consider whether multiple versions of the form will be needed under the same STUDYVERSION.

Updates for new subjects only:

- If a form change does not require sites to collect data from subjects for whom the form has already been started, make the modifications to the form and then create a **full** deployment package which results in a new study version.

Updates for new and existing subjects:

- If a form change does require sites to collect data from subjects for whom the form has already been started, there are two options:
 - To update the study version, make the modifications to the form and create an **incremental** deployment package, which results in a new study version with alternate forms.
 - To revise without updating the study version, make the modifications to the form and create a **full** deployment package, which results in a new study version that should not be used.

Note: For more information, see the Central Designer *InForm Designer's Guide*.

Updating the STUDYVERSIONSITE element

When you update a study version by installing a new deployment package, you must update the STUDYVERSIONSITE element using the following syntax:

```
<STUDYVERSIONSITE
  VERSIONDESCRIPTION="text "
  [ SITENAME="name " ]
  [ ITEMNEMONIC="name " ]
  [ ACCEPTDATE="date " ]/>
```

Revising without updating the study version

For most study definition changes, creating a new study version is strongly advised. However, from time to time you may find that you need to make minor cosmetic changes to a form and would prefer not to create an entirely new version of the study. For example, you may want to correct a typographical error on a form, change the position of a caption, or mark an item as SV required.

To make a revision without updating the study version:

- 1 Make the modifications to the form and create a **full** deployment package, which results in a new study version. Install the deployment package in the study, but do not update the site associations to the new study version (using `STUDYVERSIONSITE` definitions).
- 2 Create definitions of the `UPDATE_FORM_SECTION` or `UPDATE_SECTION_ITEM` MedML elements based on the new or changed study objects defined in the new study version. Install the `UPDATE_FORM_SECTION` or `UPDATE_SECTION_ITEM` definitions in the study using the MedML Installer utility. Associate them with the current study version. For more information, see the *Utilities Guide*.

Caution: Making study definition changes without creating a new study version violates Good Clinical Practice (GCP), and can cause problems with study data. Be sure you understand the consequences of making changes this way before you implement those changes.

Test the change in a test environment by entering data in the revised item, and verifying that the data in the Reporting and Analysis module is as expected. Also if there is any data already entered that pertains to the revised item ensure that data can be seen in the Reporting and Analysis module as expected.

When to use revising without versioning

You can make the following types of changes without creating a new study version:

- Corrections of spelling errors in question text.
- Changes to the labels of controls.
- Additions of options in radio controls and check box lists.
- Expansion of date ranges in a date time control.
- Changes to item properties, such as Required, SDV.
- Expansion of the length of a text field.
- Addition of items in a section.

Note: Such changes could have regulatory impact if the meaning of the question is changed.

When not to use revising without versioning

The following types of changes could have regulatory impact or result in data loss if made without updating the study version. For these changes you should *not* use revising without reversioning.

Type of change	Impact
Updates to question text that change the meaning of data collected. For example, changing the text from "Age >=18?" to "Age>18?"	Regulatory impact—Changes the meaning of data that has already been collected.
RefName.	Loss of previously collected data. Without the original RefName, the data cannot be accessed.
Removing an item.	Loss of previously collected data, unless no data has been collected for the item in any subject case report book.
Changing the structure of controls in an item.	Loss of previously collected data. Changing the structure of controls changes the RefName path of the controls.
Removing the SDV Required property.	Loss of SDV status in previously collected items.

Updating a section without revising the study version

To update a section in a form without revising the study version, use the UPDATE_FORM_SECTION MedML element. This element is used to modify an existing section on a form. It cannot be used to add a new section. If subject data already exists for this section, it is linked to the old version of the section. Data entered after the update is linked to the newer version of the section.

Note: To determine the RefNames for the CRF and section to update, it is recommended that you run the InForm RefName Report in the Central Designer application. For more information, see the Central Designer *InForm Designer's Guide*.

When deleting items with this element, keep in mind that the data will still exist in the database, but will not show up on the form. Instead of removing form items through this method, it is preferable to remove them by updating the study version for the study.

UPDATE_FORM_SECTION syntax

```
<UPDATE_FORM_SECTION
  FORM_REFNAME="name"
  FORM_REVISION="number"
  SECTION_REFNAME="name"
  SECTION_REVISION="number"/>
```

Attribute	Description
FORM_REFNAME	The RefName of the form to modify. Required.
FORM_REVISION	The revision number of the form to modify. Required.
SECTION_REFNAME	The RefName of the section to modify. Required.
SECTION_REVISION	The revision number of the section to modify. Required.

Using the UPDATE_FORM_SECTION element to update a section definition

- 1 Stop the study and make sure that no one can access the study or modify the study data.
- 2 Make the necessary changes to the XML for the section you want to modify.
- 3 Install the new version of the section using the MedML Installer utility.
- 4 Generate the XML for the "UPDATE_FORM_SECTION." You can use SQL to retrieve the new and old section revision numbers or you can look in the database directly.
- 5 For FORM_REVISION number, open the PF_PAGE table and look up the latest (highest number) PAGEREVISIONNUMBER for the corresponding PAGEREFNAME. For SECTION_REVISION number, open the PF_SECTION table and look up the most recent (highest number) SECTIONREVISIONNUMBER for the corresponding SECTIONREFNAME.
- 6 Run the MedML Installer utility and apply the "UPDATE_FORM_SECTION" XML. The MedML Installer utility validates that the form RefName and revision are correct, and that the form contains the section you updated.
- 7 Restart the study.
- 8 Test the updated form version after applying this change. The MedML Installer utility does not validate the item metadata against any existing subject data.

Updating an item without revising the study version

To update an item within a section without modifying the study version, use the UPDATE_SECTION_ITEM MedML element. This element is used to modify an existing item. It cannot be used to add a new item. If subject data already exists for this item, it is linked to the old version of the item. Data entered after the update is linked to the newer version of the item.

Note: To determine the RefNames for the section and item to update, it is recommended that you run the InForm RefName Report in the Central Designer application. For more information, see the Central Designer *InForm Designer's Guide*.

UPDATE_SECTION_ITEM syntax

```
<UPDATE_SECTION_ITEM
  SECTION_REFNAME="name"
  SECTION_REVISION="number"
  ITEM_REFNAME="name"
  ITEM_REVISION="number"/>
```

Attribute	Description
SECTION_REFNAME	The RefName of the section to modify. Required.
SECTION_REVISION	The revision number of the section to modify. Required.
ITEM_REFNAME	The RefName of the item to modify. If the modified item is contained in an itemset, this RefName is the RefName of the itemset. Required.
ITEM_REVISION	The revision number of the item to modify. If the modified item is contained in an itemset, this revision number is the revision number of the itemset. Required.

Using the UPDATE_SECTION_ITEM element to update an item definition

- 1 Stop the study and make sure that no one can access the study or modify the study data.
- 2 Make the necessary changes to the XML for the item you want to modify.
- 3 Install the new version of the item using the MedML Installer utility.
- 4 Generate the XML for the "UPDATE_SECTION_ITEM." You can use SQL to retrieve the revision numbers for the new and old items or you can look in the database directly.
- 5 For the SECTION_REVISION number, open the PF_SECTION table and look up the latest (highest number) SECTIONREVISIONNUMBER for the corresponding SECTIONREFNAME. For the ITEM_REVISION number, open the PF_ITEM table and look up the most recent (highest number) ITEMREVISIONNUMBER for the corresponding ITEMREFNAME.

Note: If the item you are modifying is contained in an itemset, the RefName and revision number you enter here must be for the itemset. Itemset RefNames and revision numbers are also stored in the PF_ITEM table.

- 6 Run the MedML Installer utility and apply the "UPDATE_SECTION_ITEM" XML. The

MedML Installer utility validates that the CRF RefName and revision is correct, and that the CRF contains the item you updated.

- 7 Restart the study.
- 8 Test the updated form version after applying this change. The MedML Installer utility does not validate the item metadata against any existing subject data.

CHAPTER 4

Installing the Reporting and Analysis module in a study

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Comparison of configuration scenarios

Characteristic	Single database instance (SameDB)	Different database instance (DiffDB)
Oracle Streams	Oracle Streams is not required, because there is no need to replicate study data.	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.
Schema ownership	The study schema owner owns all study and reporting objects.	Different schema owners own study or reporting objects (and each schema is in a separate instance).
Archive log mode	Running in archive log mode is not required.	Running in archive log mode is required. For more information, the <i>Installation Guide</i> .

Installing the Reporting and Analysis module—Study and reporting in different database instances

Granting privileges to the study user

Purpose	Grants database user privileges to the user that owns the study schema.
Script	grant_user_privs.sql
Where to run	Database instance for the study schema, from the folder in which the reporting software is located, for example, <i><Installation_Directory>\Inform\bin\DBOra\Reporting</i>

- 1 Open a Command Prompt window.
- 2 Change to the *<Installation_Directory>\Inform\bin\DBOra\Reporting* folder, for example, **e:\OracleHS\InForm\bin\DBOra\Reporting**.
- 3 Log on to SQL*Plus with /nolog.
- 4 Connect to the study database as a user with the privilege to grant user database privileges.
- 5 Type the following at the SQL*Plus prompt:


```
@grant_user_privs.sql <study schema owner>

<study schema owner>--Database user name that holds the study schema.
This script should run to completion without further prompts. The script produces a log called
grant_user_privs.log. A size of 0 bytes indicates that the script was successful.
```

For more information, see *grant_user_privs.sql* (on page 132).

Configuring the reporting variables for a study—Different database instances

Purpose	Configure reporting variables in an environment in which the study and reporting schemas are located in different database instances.
File to edit	configdiffdb.sql
File location	Folder in which the reporting software is located, for example, <i><Installation_Directory>\Inform\bin\DBOra\Reporting</i> .

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, e:\Oracle\Inform\bin\DBOra\Reporting.

- There are some variables that are preset. You must not try to change them. These variables are indicated with an **P** in the table that follows.
- When you set up the InForm environment to support the Reporting and Analysis module, you edited the configdiffdb.sql script to set the values of variables that remain constant for the database instance in the environment. These variables are indicated with an **I** in the table that

follows.

- Before you install the Reporting and Analysis module for a specific study, you must verify or update the `configdiffdb.sql` variables that are specific to the study. These variables are indicated with an **S** in the table that follows. When you finish updating the variables, rename the file `ConfigDiffDB-<studyname>.sql`.

For more information, see *configdiffdb.sql* (on page 128).

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/S	Variable	Value	Comments
I=Set once for the database instance; S=Set for each study; P= 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.
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.

Checking the variable settings for a study—Different database instances

Purpose	Checks the variable settings in an environment where the study and reporting databases are in different database instances.
Script	configandcheckdiffdb
Where to run	Folder in which the reporting software is located, for example, <i><Installation_Directory>\Inform\bin\DBOra\Reporting</i> .

Use the configandcheckdiffdb.sql script to check the variable settings. The installation calls this script to check the environment and variables before the installation. No logon is required to run this script, because the script uses information provided in the configdiffdb.sql file to log on.

Note: Before running the configandcheckdiffdb.sql script, make sure that archive log mode is set for the instance. For more information, see the *Installation Guide*.

- 1 Open a Command Prompt window.
- 2 Change to the directory where the reporting software is located.
- 3 Run the script using the command:

```
configandcheckdiffdb [/accountparams:path_to_password_file]
```

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.

For more information, see *configandcheckdiffdb* (on page 127).

Installing the Reporting and Analysis module—Different database instances

Purpose	Installs the Reporting and Analysis module in an environment where the study and reporting databases are in different database instances.
Script	<code>install_reporting_diffdb</code>
Where to run	Folder in which the reporting software is located, for example, <code><Installation_Directory>\Inform\bin\DBOra\Reporting</code> .

Use the `install_reporting_diffdb.sql` script to install the Reporting and Analysis module in a multiple database environment. Before running the installation script, make sure that you have updated the study-specific variable settings with the `configdiffdb.sql` script. For more information, *Configuring the reporting variables for a study—Different database instances* (on page 83).

- 1 Open a Command Prompt window.
- 2 Change to the directory where the reporting software is located.
- 3 Run the script using the command:

```
install_reporting_diffdb [/accountparams:"path_to_password_file"]
```

The script should run to completion without prompts.

- 4 Search the logs for the word Error. If the installation is successful, you should find no errors.
- 5 After the installation is complete, copy the `configdiffdb.sql` file to a different location with a different name.

You will need this file in the future if you want to uninstall or re-install the Reporting and Analysis module.

Note: If the installation process fails, run the `deinstall_reporting_diffdb.sql` script to remove all components associated with the Reporting and Analysis module for a single study schema and reporting schema. For more information, see *About removing reporting elements and an InForm study* (on page 112).

For more information, see *install_reporting_diffdb* (on page 137).

CHAPTER 5

Configuring a study for the Reporting and Analysis module

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Configuring a study for Cognos 8 BI

Configuring a study for Cognos 8 BI involves establishing communications between the InForm study and the Cognos 8 BI Server and setting up the objects that are needed for reporting. To establish communications:

- 1 Make sure that an InForm study user exists with sufficient rights and reporting group membership.

For more information, see *Giving an InForm study user reporting rights* (on page 88).

- 2 Run the InForm Reporting Configuration utility.

For more information, see *Configuring a study for the Reporting and Analysis module using the InForm Reporting Configuration utility* (on page 89).

- 3 Run the pfrinit utility.

For more information, see *Running the pfrinit utility* (on page 91).

Giving an InForm study user reporting rights

- 1 Log in to the InForm study as a user who can update InForm user information.

- 2 Click **Admin**, and click the link for a user.

The User details page appears.

- 3 Click the **Group** tab.

- 4 On the Group page:

- a Select a **Rights Group** that includes the Reports right.

- b Associate the user with one or more sites.

- c In the **Reporting** list, select Publishers and either Site Users or Sponsor Users.

- 5 Click **Submit**, click **OK** in the confirmation dialog box, and then click **Return**.

- 6 Log out of the study.

Configuring a study for the Reporting and Analysis module using the InForm Reporting Configuration utility

Purpose	Configure a study to work with Cognos 8 BI.
Wizard location	Start > All Programs > Oracle® Health Sciences > InForm 5.5 > InForm Reporting Configuration
Where to run	Server where the InForm core software is installed.

- 1 On the server where the InForm core software is installed, select **Start > All Programs > Oracle® Health Sciences > InForm 5.5 > InForm Reporting Configuration**.
The wizard title page appears.
- 2 Click **Next**
The Select Study page appears.
- 3 Use the drop-down list to choose the study you want to configure for Cognos 8 BI, and click **Next**.
The Cognos parameters page appears.
- 4 Fill out the information as described in the table below, and click **Next**.

Cognos Namespace	<p>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.</p> <p>informcap is the namespace created by InForm CRN wizard. The namespace can be shared by many studies, and it should not typically need to be changed.</p> <p>If you have created additional namespaces manually with the Cognos Configuration utility, use the name of the newly created namespace in this field.</p>
Gateway URI	<p>External public URI that communicates with the Cognos 8 BI Gateway Services from an end user's browser. This Cognos parameter is set in the Cognos 8 BI Gateway Customization for InForm wizard. The parameter setting is stored in the cogstartup.xml file.</p> <p>Example: http://appsru02.north.com/cognos8</p>
Dispatcher URI	<p>Internal URI that the InForm server uses to communicate with the Cognos 8 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.</p> <p>Example: http://appsru02.north.com:9300/p2pd/servlet/dispatch.</p>

Root Folder	The top-level reporting folder for the study. Default: /content/folder[@name='<studyname>']
-------------	--

The Reporting database parameters page appears.

- 5 Fill out the information as described in the table below, and click **Next**.

Field	Description
Reporting uses trial database	Use if the study and the Reporting database are on the same server.
Reporting uses separate database	Select if the Reporting database and the study database are in separate servers.
Database Connection String	Reporting database connection string (INS Name). Use if Reporting and the InForm study are in different databases.
User name (same as trial user)	Reporting database study username must be the same as the InForm database study username.
Password	Reporting Trial password. Use if the study and the Reporting database are in different databases.

The Study URL and database connection information page appears.

- 6 Fill out the information as described in the table below, and click **Next**.

Field	Description
Trial URL	The URL for the InForm study.
Database Connection String	The connection string for the for the CAP.
User	The user name for the CAP database schema owner.
Password	Password for the CAP database schema owner.
Name of Trusted User	Optional. The name of the user that is trusted for InForm Clinical Model Generation. By default, it is populated with pfreportinguser. This field can be left blank.

The Verification page appears.

- 7 Verify that the information on the page is correct and click **Next**.

The study is configured according to the information provided.

The Reporting configuration is complete page appears.

- 8 Click **Finish**.

About the pfrinit utility

The **pfrinit** utility performs the following tasks:

- Modifies the default Cognos 8 BI capabilities to fit the InForm reporting environment.
- Sets Public folders permissions so that only Publishers can write to this public area.
- Copies the InForm Trial Management (ITM) package present in the InForm folder and renames it as a study-specific ITM package.
- Maps study-specific reporting groups to the Cognos 8 BI groups and roles.
- Creates study-specific data connections and sets permissions so that it is restricted for the use of study members only.
- Imports the ITM package from the ITM archive, 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 are 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.

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 141).

A worksheet for the values you need to supply when running the pfrinit utility is available at *Worksheet—Running the pfrinit utility* (on page 17).

Running the pfrinit utility

Purpose	Configures Cognos for each study.
Location of file	<p><InstallationDirectory>\InForm\Bin</p> <ul style="list-style-type: none"> • pfrsetuptrial.xml—Supplies database connection information used by the pfrinit utility. • pfrinit—Sets up connection information, permissions, and folder structures needed for accessing the Reporting and Analysis module from the InForm application.
Where to perform	The InForm application server.

- 1 On the InForm application server, open the pfrsetuptrial.xml file, located in the

<Installation_Directory>\InForm\bin directory folder, and make the following changes:

- **connectionstring**—Oracle connection string for the reporting database (in a single database configuration, use the study database connection string).
 - **dbuid**—Update the DBUID parameter with the UserID of the study owner.
- 2 Save and close the PFRsetupTrial.xml file.
 - 3 Open a Command Prompt window, and type the following command:

```
pfrinit "path_to_password_file"
```

The text file format is **parameter=value**. Each parameter is on a separate line in the text file and there are no spaces in the parameter=value pair.

For more information, see *pfrinit* (on page 152).

Clinical reporting package considerations

After the clinical reporting package is generated, you can use the Reporting and Analysis Ad Hoc Reporting module to view the reporting tree.

Text controls in an InForm study can be set to accept more than 4000 characters. However, be aware that text stored in clinical views generated for reporting are truncated. If the text is longer than 4000 characters, the first 3986 characters are shown, and ****TRUNCATED**** appears at the beginning of the text in Ad Hoc Reporting.

Authorizing users for the Reporting and Analysis module

InForm access rights for reporting

Data access rights in the Reporting and Analysis module are inherited from the InForm study and adhere to the site associations and item blinding permissions that are in place for each user.

Additionally, to access the Reporting and Analysis module, an InForm user must be:

- Assigned to a rights group that includes the InForm **Reports** right. The InForm **Reports** right gives users access to the Reporting and Analysis module.
- A member of either the **Sponsor Users** or **Site Users** reporting group. This conveys the Cognos 8 BI Consumer permissions that allow users only to run reports.

You can give users access to additional reporting rights by making sure that the users are assigned to one of the default reporting groups installed with the InForm software. For more information, see *Default reporting groups* (on page 94).

Authorization on the reporting server

Reporting authorizations on the reporting server rely on permissions that are defined in authorization namespaces on the reporting server.

All rights to create or run reports are governed by reporting authorizations in the InForm study, which is referenced by the Cognos Custom Authentication Provider (CAP).

The Cognos 8 BI namespace

Each reporting server references one master namespace that controls authorization for all studies. This namespace, the Cognos 8 BI namespace, contains the Cognos 8 BI objects, such as groups, roles, distribution lists, and contacts. During the Cognos 8 BI Content Store initialization, predefined security entries that control access to specific Cognos 8 BI features are created in this namespace.

Default reporting groups

As part of the initial Reporting and Analysis setup, the pfrinit utility imports the PFRsetupTrial_<lang>.xml file, which loads the following predefined reporting groups into the Cognos 8 BI namespace for an InForm study.

In the following table, some groups are described as custom groups added by the InForm application. By default, these groups have no corresponding group or role in the Cognos 8 BI namespace. The groups are added to the Cognos 8 BI namespace by the pfrinit utility.

InForm reporting group	Cognos 8 BI namespace group or role	Provides these permissions
Ad Hoc Users	Query Users	Can run the Ad Hoc Reporting utility. Users also have the same rights as members of the Cognos 8 BI Consumers namespace role.

InForm reporting group	Cognos 8 BI namespace group or role	Provides these permissions
Authors	Authors	Can use Cognos 8 BI Reporting Studio. Users have the same rights as members of the Cognos 8 BI Consumers namespace role.
No equivalent group	Consumers	Can run reports in the Public folders. These reports can be Standard Reports or custom reports that users create. Every user that has the InForm Reports rights group right is by default a member of the Consumers group. This group is visible only as a Cognos 8 BI namespace role.
Directory Administrators	Directory Administrators	Can perform administration in the Cognos and in Sun ONE Directory Server namespaces. Can administer roles, groups, accounts, contacts, distribution lists, data sources, and printers.
Publishers	Publishers	Can create, change, schedule, or delete all content, including reports (Ad Hoc or Report Studio) to a Public folder. When users in the Publishers group run a report in a Public folder, their prompt selections are saved with the report.
Report Administrators	Report Administrators	Can administer permissions for all public content including folders and reports.
Server Administrators	Server Administrators	Can administer servers, dispatchers, and jobs.
Site Users	Site Users	Access to all Standard Reports except for by User reports. Users are automatically assigned to this group based on their user type. Custom group added by the InForm application.
Sponsor Users	Sponsor Users	Access to all InForm standard reports. Users are automatically assigned to this group based on their user type. Custom group added by the InForm application.

InForm reporting group	Cognos 8 BI namespace group or role	Provides these permissions
No equivalent group	System Administrator	<p>The superuser role in Cognos 8 BI. This user has full control of every setting for every trial that can be set in a given Cognos 8 BI server. There is no equivalent InForm reporting group. At initial setup, all users have this right.</p> <p>You should identify a small group of highly trusted users and directly assign them to the Cognos 8 BI namespace System Administrator role. Then, remove the Everyone group from this role.</p>
User Admin Info Data Users	User Admin Info Data Users	<p>Access to user data including password related data.</p> <p>Custom group added by the InForm application.</p>
User Info Data Users	User Info Data Users	<p>Access to user data except password related data.</p> <p>Custom group added by the InForm application.</p>

Specifying a logo for InForm standard reports

You can specify a company logo to appear in your standard reports. If you do not want a logo to appear in the standard reports, you must place a blank image in the location that is specified.

Note: If you do not include the blank graphic file, a missing graphic icon appears on your standard reports.

- 1 Create a file called logo.gif.
- 2 Copy the logo.gif file to the following location on the server where the Cognos 8 BI Gateway Services software is installed:

`<c8 install directory>\webcontent\<StudyDesign>`

For example: e:\Cognos\c8\webcontent\StudyDesign\logo.gif.

Enable clinical model generation in a multi-server environment

If your Cognos 8.4 environment contains multiple Cognos servers, set the following on all the dispatchers:

- 1 Log in to the Cognos server using a Private Gateway.

For more information about Private Gateways, see the *Installation Guide*.

- 2 Select **Launch > Reporting Administration**.

The Administration page appears.

- 3 Click the **Configuration** tab.

- 4 Click **Dispatchers and Services**.

A list of the dispatchers that are registered with the Content Manager appears.

- 5 For each dispatcher, perform these steps:

- a In the Actions column, click the **Set Properties** icon ().

- b Click the **Settings** tab.

- c Set the **Load Balancing Mode** property to **Cluster Compatible**.

- d Click **OK**.

CHAPTER 6

Performance tuning

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Controlling the load behavior

Studies with a very large number of subjects can take a long time to start up, because all subjects are loaded into memory cache. To confirm whether this problem is occurring, check the InForm Performance Monitor utility.

- 1 Select **Start > All Programs > Oracle® Health Sciences > InForm 5.5 > InForm Performance Monitor**.
- 2 Start the study.

If load behavior is being affected by the number of subjects, the InForm Performance Monitor utility shows many 'select * from DCV_PatientCRF where PatientID=xxxx' SQL statements.

You can modify registry settings to help alter the load behavior to make study startup more efficient. The settings are in

HKEY_LOCAL_MACHINE\SOFTWARE\ORACLEHS\InForm\PFMgrTrial\PatientCacheLoadingMode.

The following registry setting values control load behavior:

- **ondemand**—The study starts immediately and the subject data is loaded into cache only when an InForm user tries to access data for that subject. This option provides the fastest study startup, but results in slow performance the first time a subject is accessed. Subjects who are not accessed are not cached at all, which means they do not consume memory or require other server resources to load them.
- **async**—The study starts immediately and the subject cache continues to load in the background. When an InForm user tries to access data for a subject that is not yet loaded, the subject is loaded on demand. Performance may be slow the first time the subject is accessed.
- **sync**—Default. Standard InForm behavior. At start up, all subjects are loaded into memory cache.

Updating statistics in a production environment

It is recommended that you analyze all tables and indexes for better performance. The study setup process creates statistics for your study. As you add subject data to the study, it is important to refresh these statistics periodically. In a production environment, refreshing one time per day during the maintenance window is usually sufficient.

To update the statistics, you can run the `updatec.sql` script, located in the `<Installation_Directory>\bin\dbora` directory. Type the following in a Command Prompt window:

```
sqlplus <pfdbadmin_uid>@<connect_string> @updatec.sql <trialUID>
```

When prompted, enter the password for the `pfdbadmin` database user.

Do not use the `dbms_utility.analyze_schema` procedure with the `COMPUTE` or the `FOR TABLES` option on any production servers. The recommended procedure is to analyze each table and index with the `ESTIMATE` option (35 percent is adequate).

Configuring an ODBC connection

You can configure Oracle ODBC connection pooling to provide a longer connection time by changing the Timeout value.

- 1 Select **Start > All Programs > Administrative Tools > Data Sources (ODBC)**.

The ODBC Data Source Administrator window appears.

- 2 Select the **Connection Pooling** tab.
- 3 Double-click **Oracle in <Oracle_Client_Home>**.

Note: Be careful not to double-click Microsoft ODBC for Oracle.

The Set Connection Pooling Attributes dialog box appears.

- 4 Make sure that the **Pool connections to this driver** radio button is selected.
- 5 In the **Time that unused connections remain in the pool in seconds** field, set the pooling timeout value. The recommended pooling timeout is 1.5 x MSDTC Timeout Value (about 450 seconds).

If the pooling timeout value is too short, the connection refreshes too frequently. If the pooling timeout value is too long, the connection consumes too many resources.

- 6 Click **OK** in each dialog box.

Resizing virtual memory

The InForm software uses virtual memory (disk space simulated as memory) aggressively. It is recommended that you create a large paging file in a location that is different from the default location, particularly on a drive with lots of disk space.

- 1 Click **Start > Control Panel > System > Advanced system properties**.

The System Properties dialog box appears.

- 2 Click the **Advanced** tab.

- 3 In the **Performance** section, click **Settings**.

The Performance Options dialog box appears.

- 4 Click the **Advanced** tab.

- 5 Click **Change**.

The Virtual Memory dialog box appears.

- 6 In the **Drive (Volume Label)** section, select a drive in which to place the virtual memory.

- 7 Type a value in the **Initial Size (MB)** field. The sum of physical RAM plus 11 is recommended, or you can use the Recommended size.

- 8 Type a value in the **Maximum Size (MB)** field. The Initial Size (MB) x 1.5 or 2 is recommended.

- 9 Click **Set**.

- 10 Click **OK** in each dialog box.

Removing preferential treatment from foreground applications

To provide more resources for background applications in Windows 2008, you can remove preferential treatment from foreground applications.

- 1 Click **Start > Control Panel > System > Advanced system properties**.

The System Properties dialog box appears.

- 2 Click the **Advanced** tab.

- 3 In the **Performance** section, click **Settings**.

The Performance Options dialog box appears.

- 4 Click the **Advanced** tab.

- 5 Select **Background services**.

- 6 Click **OK** in each dialog box.

Optimizing Windows for network applications

- 1 Click **Start > Control Panel > Network and Sharing Center > Local Area Connection**.
The Local Area Connection Status dialog box appears.
- 2 Click **Properties**.
The Local Area Connection Properties dialog box appears.
- 3 On the Networking tab, select **File and Print Sharing for Microsoft Networks**, and click **Properties**.
The File and Printer Sharing for Microsoft Networks Properties dialog box appears.
- 4 Click **Maximize Throughput for Network Applications**.
- 5 Click **OK**, and in the Local Area Connection Status dialog box, click **Close**.

Monitoring the Windows Event Logs

The InForm application logs events to the Application Event log. For optimum performance, make sure to manually clear the log periodically, or wrap events so that the oldest events are overwritten when the log's capacity is reached.

- 1 Click **Start > Administrative Tools > Event Viewer**.

The Event Viewer window appears.

- 2 Right-click the **Application** node, and select **Properties**.

The Application Properties dialog box opens.

- 3 Set the **Log size** options according to your event log monitoring policy. You can:
 - Overwrite events as needed.
 - Overwrite events older than *n* days.
 - Clear the log manually.

It is recommended that you overwrite events as needed.

Note: The Application Event log holds a record of all InForm login attempts. If you do not want to lose any of the InForm login information, set the Log Settings accordingly.

For production servers, it is recommended that you save event logs periodically.

Moving locations for MS DTC logs

The MS DTC logs are generated by default in the %SYSTEMROOT%\SYSTEM32\DTClog folder. It is recommended that you place the logs on a different disk, and increase the log file size.

To move locations for MS DTC logs in Windows 2008:

- 1 In Windows Explorer, create a new folder for the DTC logs.
- 2 In a Command Prompt window, stop the MS DTC service.
- 3 Open Microsoft Component Services by selecting **Start > All Programs > Administrative Tools > Component Services**.
- 4 Expand **Component Services**.
- 5 Expand **Computers**.
- 6 Expand **Distributed Transactions**.
- 7 Right-click **LocalDTC**, and select **Properties**.
- 8 Select the **Logging** tab.
- 9 In the **Log Information** section, change the **Capacity** to 16 MB or higher.
- 10 Specify the location for the log file, and click **OK**.
- 11 Start the MS DTC service.
- 12 Delete the original MS DTC directory through Windows Explorer.

Clearing and enlarging MS DTC logs

If you experience an MS DTC log problem, for example if you receive the following error message, you can reset the log size:

The MS DTC log file is full and cannot accept new log records.

- 1 Open a Command Prompt window.
- 2 Stop the InForm study by typing:
`pfadmin stop trial`
- 3 Stop the MS DTC service by typing:
`net stop msdtc`
- 4 Click **Start > Programs > Administrative Tools > Component Services**.
- 5 Expand **Component Services**.
- 6 Expand **Computers**.
- 7 Expand **Distributed Transactions**.
- 8 Right-click **LocalDTC**, and select **Properties**.
- 9 Select the **Logging** tab.
- 10 In the **Capacity** field, increase the capacity of the log file to 100 MB.
- 11 Click **OK**.
- 12 Right-click **My Computer**, and select **Start MS DTC**.
- 13 Close the **Component Services** window.

Deploying SQL profiles

SQL profiles can be used to improve performance.

To create a SQL Profile, a user must have the following privileges:

- ADVISOR role
- CREATE ANY SQL PROFILE PRIVILEGE
- ALTER ANY SQL PROFILE PRIVILEGE
- DROP ANY SQL PROFILE PRIVILEGE
- EXECUTE PRIVILEGE ON DBMS_SQLTUNE

To deploy SQL profiles:

- 1 Unzip **InForm_SQLProfiles.zip** (located in the <Installation_Directory>\InForm\Bin\DBOra\ReviewSchema folder).
- 2 Connect to SQLPlus as a user with the proper privileges.
- 3 Create a staging table in the destination database.


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


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


```
EXEC DBMS_SQLTUNE.UNPACK_STGTAB_SQLPROF(replace => TRUE,
staging_table_name => 'STGTAB_SQLPROF_DB006');
```
- 6 Verify that the profiles imported correctly.


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


CHAPTER 7

Removing reporting objects and an InForm study

In this chapter

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About removing reporting objects and an InForm study

Perform the following steps to remove the Reporting and Analysis infrastructure components in all study and reporting databases within a study or reporting database instance.

Note: Be sure to perform these steps only on the databases on which you are completely removing the Reporting and Analysis module.

Note: For information about how to uninstall the core InForm software, the Cognos 8 BI software, and the customizations for the Reporting and Analysis module, see the *Installation Guide*.

- 1 Stop your study.
- 2 Remove the reporting schema.
For more information, see *Removing a reporting schema* (on page 113).
- 3 Delete stream information from the study database and reporting database.
For more information, see *Deleting stream information from the study database and reporting database*.
- 4 Delete study-specific information from the Cognos 8 BI environment.
For more information, see *Deleting study-specific information from the Cognos 8 BI environment* (on page 115).
- 5 Remove the InForm study.
For more information, see *Removing an InForm study* (on page 117).

Removing the reporting schema and Reporting and Analysis module

To remove the Reporting and Analysis module for a study, you remove the reporting schema, using scripts that are provided in the folder where the reporting software is installed. In an environment where the study and reporting schemas are in different database instances, to completely remove the Reporting and Analysis module environment, you also remove other users and roles.

Method	When to use	Where to get more information
Run the following script: deinstall_reporting_diffdb.sql.	<ul style="list-style-type: none"> When study and reporting schemas are in <i>separate</i> database instances. To remove one study and reporting schema. 	<i>Removing a reporting schema—Study and reporting in different database instances</i> (on page 113)

About the deinstall_reporting_diffdb.sql script

To remove a single reporting schema when the study and reporting schemas are located in different database instances, use the **deinstall_reporting_diffdb.sql** script. This script:

- Uninstalls only one reporting schema each time you run it. 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.

Before you start, 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 ***Configuring the reporting variables for a study—Different database instances*** (on page 83).

Note: If you want to remove Reporting users from the Reporting and Analysis environment, contact Global Customer Support.

Removing a reporting schema

Purpose	Removes a single reporting schema when the study and reporting schemas are located in different database instances.
Script	deinstall_reporting_diffdb
Where to run	Folder where the reporting software is located, for example, \Oracle\InForm\bin\DBORA\Reporting.

Before you start, 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 ***Configuring the reporting variables for a study—Different database instances*** (on page 83).

- 1 Open a Command Prompt window, and change to the folder where the reporting software is

located, for example, \Oracle\InForm\bin\DBORA\Reporting.

- 2 Run the script using the command:

```
deinstall_reporting_diffdb [/accountparams:path_to_password_file]
```

- 3 Check for any errors by searching for the word **Error** in the deinstall_reporting_diffdb.log file. If any errors are found, correct the problem and run the script again.
- 4 Rerun the script until it does not find anything to remove and does not have any errors. The log shows all steps with the message **No object... was found.**
- 5 Run the configandcheckdiffdb.sql script to make sure everything has been removed. If the script completes successfully, the uninstall succeeded.

For more information, see *deinstall_reporting_diffdb* (on page 130).

Removing the Reporting and Analysis module

This process removes the Reporting and Analysis infrastructure components in all study and reporting databases within a study or reporting database instance.

Note: Be sure to perform this procedure only on the databases on which you are completely removing the Reporting and Analysis module.

- 1 Shut down any studies and Streams processes.
- 2 Make sure that there are no other users on the system.
- 3 Uninstall any existing Reporting and Analysis installations in the database.
Repeat that procedure as many times as necessary to remove all affected reporting schemas before proceeding. For more information, see *Removing a reporting schema* (on page 113).
- 4 Run Add/Remove programs to remove the Reporting and Analysis module.

Before you start to remove the Reporting and Analysis module

- 1 Shut down any studies and Streams processes.
- 2 Make sure that there are no other users on the system.
- 3 Uninstall any existing Reporting and Analysis installations in the database. Repeat that procedure as many times as necessary to remove all affected reporting schemas before proceeding.

Removing study-specific information from the Cognos 8 BI environment

After you remove a reporting schema and the Reporting and Analysis module for a study, using the `deinstall_reporting_diffdb_sql` script, additional steps are required to remove study-specific information from the Cognos 8 BI environment.

Deleting study-specific information from the Cognos 8 BI environment

To remove study information from the Cognos 8 BI environment, you must be an InForm user with the following credentials:

- Access to the study to be removed.
- Member of a rights group that includes the Reports right.
- Member of the following Reporting groups:
 - Either Site Users or Sponsor Users.
 - Directory Administrators.
 - Either Report Administrators or Server Administrators.

To remove study information from the Cognos 8 BI environment:

- 1 Log in to the Cognos server using a Private Gateway.
For more information about Private Gateways, see the *Installation Guide*.
- 2 Click **Reporting**.
- 3 Log on to the Reporting and Analysis module as a System Administrator:
 - a Select **Logon**.
 - b In the **User** field, type `crnsysadmin`.
 - c In the **Password** field, type the password for the `crnsysadmin` user.
 - d Click **OK**.
- 4 Select **Launch > Reporting Administration**.
- 5 Select the **Configuration** tab.
- 6 Click **Data Source Connections**.
The connection for the study appears (for example, `pfst55Connection`).
- 7 In the list of Actions icons, click **More**.
The Perform an action page appears.
- 8 Click **Delete**, and when the confirmation dialog box appears, click **Yes**.
- 9 Click **Return**.
- 10 On the **Public Folders** tab, select the folders that are related to the study (for example, **InForm Trial Management for PFST60**).
- 11 For each study-related folder:
 - a In the list of Actions icons, click **More**.
The Perform an action page appears.

- b Click **Delete**, and when the confirmation dialog box appears, click **Yes**.
- c Click **Return**.

12 Select **Logoff**.

Note: If you log off and attempt to log on again, an Authentication Failed error appears. If this occurs, you must log out of the InForm study and log in again. You can then log in to the Reporting and Analysis module as a System Administrator by performing Step 2 and Step 3 of this procedure.

Removing an InForm study

Purpose	Removes an InForm study and server.
Where to perform	Server where the InForm core software is installed.

- 1 Stop the study, using the following command:

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

- 2 Remove the study, using the following command:

```
pfadmin remove trial <studyname>
```

or

To remove the DSNs from ODBC data source administration at the same time, use the following command

```
pfadmin remove trial <studyname> /DSN
```

- 3 If you did not remove the study DSN with the pfadmin utility, remove it through the Windows Data Sources (ODBC) utility:

- a Select **Start > Administrative Tools > Data Sources (ODBC)**.
- b Select the **System DSN** tab.
- c Select the study DSN, and click **Remove**.
- d If the study has a randomization or CDD DSN, remove those, as well.
- e Click **OK**.

- 4 After removing all studies from an InForm server, remove the server with the following command:

```
pfadmin remove server <servername>
```

- 5 Back up the study database.

- 6 Remove the study user from the database. As the pfdbadmin user, issue the following SQL*Plus command:

```
drop user <study_uid> cascade;
```

Caution: When you perform this step, all study data is removed. Make sure that the backup is complete before you drop the study user.

APPENDIX A

Troubleshooting

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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 pfdadmin informadmin informadmin pfdadmin
```

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](#).

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 128).
- 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 rptinstall
```

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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 8 BI server.

This Cognos 8 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 pfdadmin 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>  
<pfdadmin_userid> <pfdadmin_password>
```

Example

```
informprepora trialdb oracle pfdadmin pfdadmin
```

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 128).

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 sypwd KEY_OraClient10g_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 140).

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]	<p>Displays the current InForm Server COM and MTS components in the NT registry.</p> <p>WARNING: Be careful to remove the server(s) or uninstall the service before using either of the delete options:</p> <ul style="list-style-type: none"> • [/Del]—Removes obsolete settings. • [/DelAll]—Removes the settings of all servers.

pfadmin command options	
Option	Purpose and Syntax
CONFIG Service [/AdminDB <i>DBServer UID PID</i>] [/AdminDSN <i>DsnName UID PID</i>] [/ <i>AdminDN AdminPwd</i>] [/PfUser <i>Password</i>] [/SysDBA <i>UID PID</i>]	<p>Configures an existing service.</p> <ul style="list-style-type: none"> • [/AdminDB <i>DBServer UID PID</i> [SQL]]—Sets the ODBC DSN for the InFormAdmin database. Make sure that <i>DBServer</i>, <i>UID</i>, and <i>PID</i> 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 <i>DsnName UID PID</i>] —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 <i>Password</i>] —Creates the PfUser_ <i>computername</i> 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 <i>UID PID</i>] —Sets the InForm Service DBA user name and password. The default username and password is pfdadmin, which is set during the InForm installation. You can use this command to change the pfdadmin password as needed. <p>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.</p> <p>Use alphabetic or alphanumeric characters for the UID and PID, and begin them with a letter; do not use all numeric characters.</p>
CONFIG Server <i>ServerName</i> [Automatic Manual]	<p>Configures the startup mode for an existing server as either Automatic or Manual.</p>

pfadmin command options	
Option	Purpose and Syntax
CONFIG Trial <i>TrialName</i> [Automatic Manual] [/TriDSN <i>DSN UID PID</i>] [/RndDSN <i>DSN</i>] [/RndDSN <i>DSN UID PID</i>] [/Rnd [<i>MDBFilePath</i>]] [/Rnd [<i>MDBFilePath</i>] <i>UID</i> <i>PID</i>] [/Host <i>ServerName</i>]	Configures an existing study. <ul style="list-style-type: none"> • [Automatic Manual]—Configures the study startup mode. • [/TriDSN <i>DSN UID PID</i>]—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 <i>DSN</i>]—Configures the study randomization source dataset name. Use when setting up a Microsoft randomization source database. • [/RndDSN <i>DSN UID PID</i>]—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 [<i>MDBFilePath</i>]]—Creates a study randomization source dataset name to use the given Microsoft Access database file. • [/Rnd [<i>MDBFilePath</i>] <i>UID PID</i>]—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 <i>ServerName</i>]—Moves the study from current host server to another server in the InForm Service.
CONFIG CDD <i>TrialName</i> [Enable Disable] [<i>DSN</i> [Active Inactive]] [<i>DSN StudyLocale</i>] [<i>DSN UID PID</i>]	Configures an existing CDD: <ul style="list-style-type: none"> • [Enable Disable]—Enables or disables the CDD for a particular study. • [<i>DSN</i> [Active Inactive]]—Makes a CDD DSN active or inactive for a particular study. • [<i>DSN StudyLocale</i>]—Specifies the study locale used for the unit symbol translation that is stored in the CDD column for the unit symbol. • [<i>DSN UID PID</i>]—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.
CREATEREPORTINGMODE L <i>TrialName</i>	Creates the Reporting model from scratch.
HELP	Lists all the options of the pfadmin command.

pfadmin command options	
Option	Purpose and Syntax
KILLSERVER <i>ServerName</i>	Stops server MTS packages without stopping studies on the server.
PING <i>MachineName</i> 1 2 3: <i>ServerName</i> 4: <i>ServerName</i> 5: <i>ServerName</i> [Port#]	<p>Pings the InForm Service or a particular server. The ping levels are:</p> <ul style="list-style-type: none"> • 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.
RECREATEREVIEWSCHEM A [<i>TrialName</i> <i>StudyLocale_ISO_name</i>]	<p>Changes the Review Schema study locale.</p> <p>The Review schema study locale is chosen automatically when a trial is first installed, but can be changed using this command.</p>
REMOVE [Server <i>ServerName</i>] [Trial <i>TrialName</i> [/DSN]] [CDD <i>TrialName</i> [/All <i>DSN</i>]]	<p>Removes an existing server, study, or CDD.</p> <ul style="list-style-type: none"> • [Server <i>ServerName</i>]—Removes an InForm server from the InForm Service. Studies should be either reconfigured to other servers or removed before this command is run. • [Trial <i>TrialName</i> [/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 <i>TrialName</i> [/All <i>DSN</i>]]—Removes either all CDD DSNs in the specified study or the given CDD by DSN. <p>Note: Before using the PFADMIN REMOVE command, verify that IIS is running.</p>

pfadmin command options

Option	Purpose and Syntax
SETSERVER [Site <i>TrialName MachineName</i>] [MedMLInstaller <i>TrialName MachineName</i>] [Reporting <i>TrialName ReportingUr</i>] [ReportingAN <i>TrialName AuthenticationNamespace</i>] [ReportingUR <i>TrialName UserRoot</i>] [ReportingInt <i>TrialName ReportingInternalURI</i>]	Changes the MedML and Site servers and sets the Reporting configuration settings <ul style="list-style-type: none"> • [Site <i>TrialName MachineName</i>]—Not supported. • [MedMLInstaller <i>TrialName MachineName</i>]—Not supported. • [Reporting <i>TrialName ReportingUr</i>]—Set Cognos 8 BI URL for study. • [ReportingAN <i>TrialName AuthenticationNamespace</i>]—Set Cognos 8 BI AuthenticationNamespace for study. • [ReportingUR <i>TrialName UserRoot</i>]—Set Cognos 8 BI UserRoot for study. • [ReportingInt <i>TrialName ReportingInternalURI</i>]—Set the internal URI that the InForm server uses to communicate with the Cognos 8 BI server. <p>Note: The SETSERVER command requires that you set the Default Authentication Level property of the InForm server to Connect:</p> <p>To set this property:</p> <ol style="list-style-type: none"> 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 <i>ServerName</i> [Automatic]	Creates a new InForm server in the InForm Service. <ul style="list-style-type: none"> • [Automatic]—The server is automatically started with the InForm Service. Manual startup is the default.

pfadmin command options	
Option	Purpose and Syntax
SETUP Trial <i>TrialName</i> <i>ServerName</i> [/DB <i>OracleConnStr</i> <i>UID</i> <i>PID</i>] [/DSN <i>TriDSN</i> <i>UID</i> <i>PID</i> [Automatic]]	<p>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.</p> <ul style="list-style-type: none"> • [/DB <i>OracleConnStr</i> <i>UID</i> <i>PID</i>]—Creates an ODBC DSN <i>TrialName</i> with the given <i>ServerName</i>, <i>UID</i>, and <i>PID</i>. Use alphabetic or alphanumeric characters for the <i>UID</i> and <i>PID</i>, and begin them with a letter; do not use all numeric characters. • [/DSN <i>TriDSN</i> <i>UID</i> <i>PID</i> [Automatic]]—Configures the created study <i>TrialName</i> to use the given study dataset name <i>TriDSN</i>, <i>UID</i>, and <i>PID</i>. The study must be present in the ODBC DSN. Use alphabetic or alphanumeric characters for the <i>UID</i> and <i>PID</i>, and begin them with a letter; do not use all numeric characters. <p>Note: Before using the /DSN command, verify that IIS is running.</p>
SETUP CDD <i>RefName</i> <i>TrialName</i> /DB <i>OracleConnStr</i> <i>DSN</i> <i>UID</i> <i>PID</i> [/TBSP <i>OraTBSP</i>] [Active] [NoSchema]	<p>Sets up a new CDD DSN associated with the given CDD refname. Use alphabetic or alphanumeric characters for the <i>UID</i> and <i>PID</i>, and begin them with a letter; do not use all numeric characters.</p> <ul style="list-style-type: none"> • [/TBSP <i>OraTBSP</i>]—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 <i>RefName</i> that defines the schema. <p>Note: To execute this command successfully, the study must be started.</p>

pfadmin command options	
Option	Purpose and Syntax
SETUP CDD <i>RefName</i> <i>TrialName</i> /DSN <i>DSN</i> <i>UID</i> <i>PID</i> [/TBSP <i>OraTBSP</i>] [Active] [NoSchema]	<p>Sets up an existing DSN associated with the given CDD <i>RefName</i>. Use alphabetic or alphanumeric characters for the <i>UID</i> and <i>PID</i>, and begin them with a letter; do not use all numeric characters. [/TBSP <i>OraTBSP</i>]—Defines the Oracle tablespace for the CDD schema.</p> <ul style="list-style-type: none"> • [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 <i>RefName</i> that defines the schema. <p>Note: To execute this command successfully, the study must be started.</p>
SETLANGUAGE [<i>IsoLanguageName</i>] en-US ja-JP	<p>Sets the InForm product locale language. en-US and ja-JP are currently supported.</p>
SETSERVER PPREPORTINGUSERPW < <i>studyname</i> > < <i>new_password</i> >	<ul style="list-style-type: none"> • 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 <i>ServerName</i>] [Trial <i>TrialName</i>]	<p>Starts an existing InForm server or study.</p> <ul style="list-style-type: none"> • [Server <i>ServerName</i>]—Starts an existing InForm server by server name. • [Trial <i>TrialName</i>]—Starts an existing study by study name.
START [Trial <i>TrialName</i> [/Design]]	<p>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.</p>
STOP [Server <i>ServerName</i> [/Trials]] [Trial <i>TrialName</i> [/Anyway]]	<p>Stops an existing InForm server or study.</p> <ul style="list-style-type: none"> • [Server <i>ServerName</i> [/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 <i>TrialName</i> [/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	<p>Removes all InForm servers and studies, and then removes the InForm service settings PUser_<i>computername</i> and the MTS library package.</p> <p>Note: The InForm service must be running for the command to work.</p>
VIEW [Languages] [Service] [Server <i>ServerName</i>] [Trial <i>TrialName</i>] [CDD <i>TrialName</i>] [Reporting <i>TrialName</i>]	<p>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.</p> <ul style="list-style-type: none"> • [Languages]—Lists installed languages without starting the InForm Service. • [Service] <ul style="list-style-type: none"> ▪ Lists all the servers and studies in the InForm service. ▪ Lists installed product languages as well as the actual installed product language. • [Server <i>ServerName</i>]—Lists each server by server name and studies hosted on that server. • [Trial <i>TrialName</i>]—Lists a study by its name. • [CDD <i>TrialName</i>]—Lists the RefNames for each CDD DSN configured for the specified study. • [Reporting <i>TrialName</i>]—Lists the current status of Reporting. <ul style="list-style-type: none"> ▪ 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 8 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/
```

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 <i>must</i> 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 <i>must</i> 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 8 BI Gateway Services from an end user's browser. This Cognos parameter is set in the Cognos 8 BI Gateway Customization for InForm wizard. The parameter setting is stored in the cogstartup.xml file. Example: http:example.north.com/cognos8

Option	Description
/DISPATCHERURI: <dispatcher_uri>	Internal URI that the InForm server uses to communicate with the Cognos 8 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 (INS 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.

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/
```

pfrinit

Purpose

Performs the following tasks:

- Modifies the default Cognos 8 BI capabilities to fit the InForm reporting environment.
- Creates new Cognos 8 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 8 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 PFWDCRNSYSADMIN <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 141).

pfrinit command options

Option	Description
admin_namespace	Sun ONE Directory Server admin namespace. Type ORACLEHS (case-sensitive).

pfrinit command options	
Option	Description
admin_username	User name for the Sun ONE 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 <i>must</i> 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 <i><namespace></i> option <i>must</i> also be informcap.
InForm_study_user	InForm study user who is a member of the following Reporting groups: <ul style="list-style-type: none"> • Publishers. • Either Sponsor Users or Site Users. <p>pfreportinguser is the recommended study user to run pfrinit. This user is created during Reporting and Analysis installation.</p>
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 8 BI server. This Cognos 8 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. <p>Example: http://<machine_FQDN>:9300/p2pd/servlet/dispatch.</p>
studyname	Name of the InForm study. <p>Note: Use the same case as when the study was created by the Central Designer deployment package.</p>

Example

```
pfrinit PFWDCrnsysadmin crnsysadminpid informcap <InForm_study_user>
<InForm_study_user_password> http://rdinform222.pf.com:9300/p2pd/servlet/dispatch pfst50
```


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