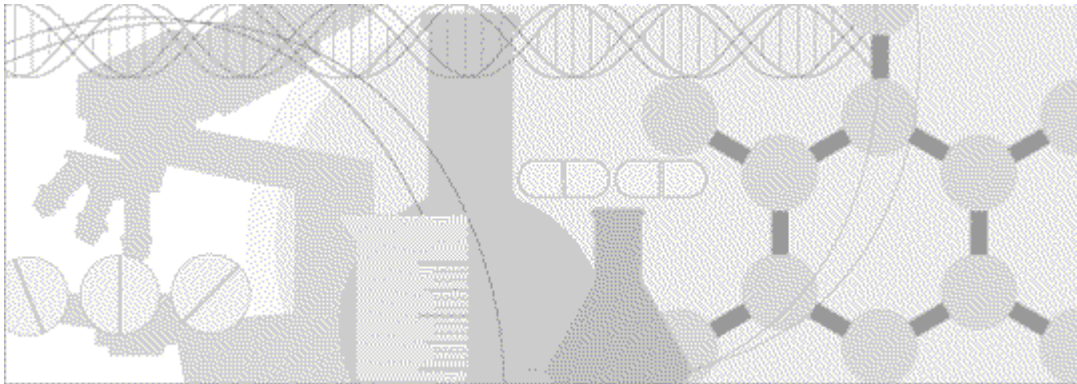


# Release Notes

## Oracle<sup>®</sup> Health Sciences Central Designer Release 2.0



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## About the Central Designer 2.0 release

The Oracle® Health Sciences Central Designer 2.0 release includes the following components:

- Oracle® Health Sciences Central Designer 2.0 software.
- Oracle® Health Sciences Central Designer 2.0 documentation.

Before beginning the installation, check the Oracle Software Delivery Cloud (<https://edelivery.oracle.com>) or the Download Center (<https://extranet.phaseforward.com>) for the latest patchsets and patches, as well as the accompanying *Release Notes* and *Known Issues* documents, and the latest versions of the documentation.

### Central Designer 2.0 product CD

The Central Designer 2.0 product CD includes all the files you need to install the Central Designer and Central Designer Administrator software.



## Central Designer 2.0 documentation

The Central Designer 2.0 documentation includes the documents in the following table. All documentation is available from the Download Center (<https://extranet.phaseforward.com>).

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

Item	Description	Part number	Last updated
<i>Release Notes</i>	The <i>Release Notes</i> document provides detailed information about the requirements, enhancements, and fixed issues in the current release.	E37916-02	2.0
<i>Known Issues</i>	<p>The <i>Known Issues</i> document provides detailed information about the known issues in this release, along with workarounds, if available.</p> <p><b>Note:</b> The most current list of known issues is available on the Extranet. To sign in to the Extranet, go to <a href="https://extranet.phaseforward.com">https://extranet.phaseforward.com</a>.</p>	E37915-01	2.0
<i>Installation Guide</i>	<p>The <i>Installation Guide</i> provides system requirements and instructions for installing and upgrading the Oracle® Health Sciences Central Designer software and the Oracle® Health Sciences Central Designer Administrator software.</p> <p>This document is also available from the Documentation CD.</p>	E37914-02	2.0
<i>Administrator Guide</i>	<p>The <i>Administrator Guide</i> describes how to use the Oracle® Health Sciences Central Designer Administrator software to set up users, permissions, system configuration parameters, and catalog defaults.</p> <p>This document is also available from the Oracle® Health Sciences Central Designer Administrator application user interface (HTML format) and the Documentation CD (PDF format).</p>	E37912-01	2.0
<i>InForm Design Guide</i>	<p>The <i>InForm Design Guide</i> describes how to design a study for deployment to the InForm application.</p> <p>This document is also available from the Oracle® Health Sciences Central Designer application user interface (HTML format) and the Documentation CD (PDF format).</p>	E37913-01	2.0

Item	Description	Part number	Last updated
<i>User Guide</i>	<p>The <i>User Guide</i> introduces the study design environment in the Oracle® Health Sciences Central Designer application and describes how to work as a study design team in that environment, including how to:</p> <ul style="list-style-type: none"> <li>• Work collaboratively.</li> <li>• Maximize study design efficiency by reusing study objects.</li> <li>• Manage collections of study objects.</li> </ul> <p>This document is also available from the Oracle® Health Sciences Central Designer application user interface (HTML format) and the Documentation CD (PDF format).</p>	E37919-01	2.0
<i>Rules Reference Guide</i>	<p>The <i>Rules Reference Guide</i> is a reference to the tools that are available for creating rule expressions, including:</p> <ul style="list-style-type: none"> <li>• Study object properties.</li> <li>• Functions.</li> <li>• Constants.</li> <li>• Data mappings.</li> <li>• Methods, operators, and literals.</li> </ul> <p>This document is also available from the Oracle® Health Sciences Central Designer application user interface (HTML format) and the Documentation CD (PDF format).</p>	E37917-01	2.0
<i>Secure Configuration Guide</i>	<p>The <i>Secure Configuration Guide</i> provides an overview of the security features provided with the Oracle® Health Sciences Central Designer application, including details about the general principles of application security, and how to install, configure, and use the Central Designer application securely.</p>	E37918-01	2.0

# Using the Central Designer application with the InForm application

- For customers currently using the InForm Architect application or who have studies in production that were designed using the InForm Architect application:

The Central Designer application provides the standard design environment for all InForm studies and deploys into InForm release 4.6 and later. Because it supersedes the InForm Architect application, a valid license or access right for the Central Designer application is required to design InForm studies. To facilitate the transition from the InForm Architect application to the Central Designer application, if you are currently on a term license for the InForm Architect software, you are entitled to use the Central Designer application under your existing term license. Upon expiration of the term, you must purchase a Central Designer software license or use the Design Environment on Demand (DEOD) offering. A valid license for the Central Designer software also provides the right to access the InForm Architect application for the purpose of maintaining existing InForm Architect studies.

- For the Central Designer software when installed in a self-hosted environment:

A Central Designer license for a self-hosted deployment includes access to the InForm application specifically to be used for the purpose of study development and testing, and not deployment of studies into production.

- For the Central Designer software when used in a Design Environment On Demand (DEOD) offering:

A Central Designer license for a DEOD offering includes access to the InForm application within the design environment for development and testing purposes only.

## 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

# Hardware and software requirements

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## Deployment scenarios and requirements

For this release of the Central Designer application, on the computer on which the InForm software is running:

- If you are using an InForm version in the 4.6 or 5.0 release stream, install Oracle database version 10.2.0.4 or later.
- Install Microsoft .NET Framework 4.0.
- Install the InForm software before you install .NET Framework 4.0. You cannot install InForm software on a computer on which .NET Framework has already been installed.

If you created a deployment package and are upgrading to a new release:

- Changes that impact deployment to the InForm application are propagated only after you create a new deployment package and install it on the InForm server.
- If you have already installed the deployment package and the study is live, you also have to change the study version.

**Note:** Oracle strongly recommends that you install the Central Designer software on a different server computer than the server computer on which the InForm software runs.

## System requirements: Client computers

Feature	Client requirement
Operating system	<p>One of the following:</p> <ul style="list-style-type: none"> <li>Windows Server 2003 SP2 or higher, Standard or Enterprise Edition.</li> <li>Windows Server 2003 R2 SP2 or higher.</li> <li>Windows XP SP3, Professional Edition.</li> <li>Windows 2008 SP2 32-bit, Standard Edition.</li> <li>Windows 2008 SP2 64-bit, Enterprise Edition.</li> <li>Windows 2008 R2, Standard or Enterprise Edition.</li> <li>Windows 7, 32-bit or 64-bit.</li> </ul> <p><b>Note:</b> Oracle recommends using Windows 7.</p>
Processor	Single CPU Pentium 4, 1 GHz or higher.
Display	<ul style="list-style-type: none"> <li>1024 x 768 or greater resolution.</li> <li>256 or more colors.</li> </ul>
Memory	<p><i>Minimum:</i> 1 GB.</p> <p><i>Recommended:</i> 2 GB.</p> <p><b>Note:</b> If the computer has 512 MB or less, you cannot install the client applications.</p>
Disk space	<p>In addition to the space required for the operating system:</p> <ul style="list-style-type: none"> <li>Approximately 150 MB for both the Central Designer software and Central Designer Administrator software.</li> </ul>
Software	<ul style="list-style-type: none"> <li>Adobe Acrobat Reader 6.0 or later (for documentation).</li> <li>For Windows XP operating systems, install both: <ul style="list-style-type: none"> <li>Microsoft .NET Framework 3.5 SP1.</li> <li>Microsoft .NET Framework 4.0.</li> </ul> </li> <li>For all other operating systems, only install: <ul style="list-style-type: none"> <li>Microsoft .NET Framework 4.0.</li> </ul> </li> <li>Microsoft Internet Explorer 6.0 SP1 or SP2, 7.0, 8.0, or 9.0.</li> </ul> <p><b>Note:</b> You must run Microsoft Internet Explorer 8.0 and 9.0 in compatibility mode to display the Help correctly.</p>
Bandwidth between the application server and client computers	<p><i>Minimum:</i> 1.5 Mbps (T1)</p> <p><i>Recommended:</i> 5 Mbps</p>

## System requirements: Application servers

Feature	Application server requirement
Operating system	<ul style="list-style-type: none"> <li>Windows Server 2003 SP2, Standard or Enterprise Edition.</li> <li>Windows Server 2003 R2 SP2.</li> <li>Windows 2008 SP2 or higher 32-bit, Standard Edition.</li> <li>Windows 2008 SP2 or higher 64-bit, Enterprise Edition.</li> <li>Windows 2008 R2, Standard or Enterprise Edition.</li> </ul> <p><b>Note:</b> Windows 2003 without SP2 is not supported.</p> <p>You can install on an English or Japanese operating system.</p>
Processor	<p><i>Minimum:</i> 2.0 GHz or higher.</p> <p><i>Recommended:</i> Multiple processors, each 2.0 GHz or higher.</p>
Memory	<p><i>Minimum:</i> 2 GB.</p> <p><i>Recommended:</i> 4 GB.</p>
Disk space	<p>In addition to the space required for the operating system:</p> <ul style="list-style-type: none"> <li>Approximately 500 MB for the Central Designer software.</li> </ul>
Connectivity	100/1000 NIC.
Display	<ul style="list-style-type: none"> <li>1024 x 768 or greater resolution.</li> <li>256 or more colors.</li> </ul>



Feature	Application server requirement
Software	<p>Windows components:</p> <ul style="list-style-type: none"> <li>One of the following: <ul style="list-style-type: none"> <li>Microsoft Internet Information Server (IIS) 6.0.</li> <li>Microsoft Internet Information Server (IIS) 7.0.</li> </ul> <p><b>Note:</b> For Windows 2008 operating systems with Microsoft Internet Information Server (IIS) 7.0, you must also install the Microsoft Internet Information Server (IIS) 6.0 Compatibility Role Service Component.</p> </li> <li>ASP .NET version 4.0.</li> <li>Microsoft .NET Framework 4.0.</li> </ul> <p>Oracle client components:</p> <ul style="list-style-type: none"> <li>One of the following: <ul style="list-style-type: none"> <li>Oracle Client 10.2.0.4 with Patch 20 or Patch 39. <p><b>Note:</b> Oracle database version 10.2.0.4 no longer receives patch support.</p> </li> <li>Oracle Client 10.2.0.5.</li> <li>Oracle Client 11.2.0.2.</li> <li>Oracle Client 11.2.0.3.</li> </ul> </li> <li>Oracle Services for Microsoft Transaction Server (MTS) for your Oracle Client version.</li> <li>One of the following .NET 2.0 versions of Oracle Data Provider (ODP) for .NET: <ul style="list-style-type: none"> <li>10.2.0.4.0, version 2.102.4.0.</li> <li>11.2.0.2, version 2.112.2.0.</li> </ul> <p><b>Note:</b> If you are upgrading, you do not need to uninstall the 1.x version.</p> </li> </ul>
Services	<p>The Distributed Transaction Coordinator service must be running. The service provides transaction support for Central Designer database operations.</p>

## System requirements: Database server

Feature	Database server requirement
Operating system	Operating system and hardware as specified by Oracle for the Oracle 10g or Oracle 11g database software.
Processor	As required by the Oracle specification for the operating system.
Memory	4 GB.
Disk space	In addition to the space required for the Oracle database software installation: <ul style="list-style-type: none"><li>• Approximately 100 MB tablespace for installation, plus additional space as required to accommodate the database.</li></ul>
Connectivity	100/1000 NIC.
Display	No requirements.
CD drive	Required only if you need a CD drive to install Oracle Server.
Software	One of the following: <ul style="list-style-type: none"><li>• Oracle Database 10.2.0.4 with Patch 20 or Patch 39, Standard or Enterprise Edition. <b>Note:</b> Oracle database version 10.2.0.4 no longer receives patch support.</li><li>• Oracle Database 10.2.0.5.</li><li>• Oracle Database 11.2.0.2.</li><li>• Oracle Database 11.2.0.3.</li></ul> Mandatory database components: <ul style="list-style-type: none"><li>• Oracle Text.</li><li>• Oracle Java Virtual Machine (JVM).</li><li>• Oracle XML DB.</li></ul>

# Oracle component and patch requirements

## Minimum Oracle database patches required for the database server

**Note:** The patches for the Oracle Database Server and the Oracle Client have been set so that both the database and the client use version 4 “TSTZ” (timestamp/time zone) files. The version of these files should always match. This needs to be taken into consideration when applying future patches to the database or client.

If a future patch for either the database or client changes the version of these files, then the patches for both the client and database should be reviewed.

### Oracle Windows patches

When a physical machine serves as more than one type of server, you will need all the patches that are required for each type of server. For example, in a single-tier Central Designer installation, the machine that both the Central Designer Server and the Database Server are installed on requires all the patches listed under both the Oracle database and the Oracle client.

## Oracle 10.2.0.4

### Oracle 10.2.0.4 database software for Microsoft Windows 32-bit and 64-bit

Install the patches in the order that they appear in the table.

**Note:** Oracle database version 10.2.0.4 no longer receives patch support.

Oracle database version	Patch number	Notes
1 10.2.0.1	n/a	Base release of Oracle 10.2 database software.
2 10.2.0.4	6810189	10g Release 2 (10.2.0.4) Patch Set 3.
3 10.2.0.4.3	6880880	Patch for OPatch.
4 10.2.0.4 (Patch 20)	<b>32-bit</b> —8439220 <b>64-bit</b> , one of the following: <ul style="list-style-type: none"> <li><b>AMD</b>—8439221</li> <li><b>Itanium</b>—8439222</li> </ul>	Patch 20 for Oracle 10.2.0.4 database software.
5 10.2.0.4 (Patch 39)	<b>32-bit</b> —1000801 <b>64-bit</b> —10008104	Patch 39 for Oracle 10.2.0.4 database software.

### Oracle 10.2.0.4 database software for Red Hat Linux 32-bit (versions 3 and 4), Linux x86-64 (versions 3 and 4), and Sun Solaris/IBM AIX/HP-UX 64-bit

Install the patches in the order that they appear in the table.

**Note:** Oracle database version 10.2.0.4 no longer receives patch support.

Oracle database version	Patch number	Notes
1 10.2.0.1	n/a	Base release of Oracle 10.2 database software.
2 10.2.0.4	6810189	10g database software Release 2 (10.2.0.4) Patch Set 3.
3 10.2.0.4.3	6880880	Patch for OPatch.
4 10.2.0.4 (Patch 20)	n/a	Patch 20 for Oracle 10.2.0.4 database software.
5 10.2.0.4 (Patch 39)	n/a	Patch 39 for Oracle 10.2.0.4 database software.

### Oracle 10.2.0.4 database software for Red Hat Linux 64-bit (versions 3 and 4)

Install the patches in the order that they appear in the table.

**Note:** Oracle database version 10.2.0.4 no longer receives patch support.

Oracle database version	Patch number	Notes
1 10.2.0.1	n/a	Base release of Oracle 10.2 database software.
2 10.2.0.4	6810189	10g database software Release 2 (10.2.0.4) Patch Set 3.
3 10.2.0.4.3	6880880	Patch for OPatch.
4 10.2.0.4 (Patch 20)	n/a	Patch 20 for Oracle 10.2.0.4 database software.
5 10.2.0.4 (Patch 39)	n/a	Patch 39 for Oracle 10.2.0.4 database software.

## Oracle 10.2.0.5 database software

### Oracle 10.2.0.5 database software for Microsoft Windows 32-bit and 64-bit

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 10.2.0.1	n/a	Base release of Oracle 10.2 database software.
2 10.2.0.5	8202632	10g database software Release 2 (10.2.0.5) Patch Set 4.

## Oracle 10.2.0.5 database software for Red Hat Linux 32-bit (versions 3 and 4), Linux x86-64 (versions 3 and 4), and Sun Solaris/IBM AIX/HP-UX 64-bit

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 10.2.0.1	n/a	Base release of Oracle 10.2 database software.
2 10.2.0.5	8202632	10g database software Release 2 (10.2.0.5) Patch Set 4.

## Oracle 10.2.0.5 database software for Red Hat Linux 64-bit (versions 3 and 4)

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 10.2.0.1	n/a	Base release of Oracle 10.2 database software.
2 10.2.0.5	8202632	10g database software Release 2 (10.2.0.5) Patch Set 4.

## Oracle 11.2.0.2 database software

### Oracle 11.2.0.2 database software for Microsoft Windows 32-bit and 64-bit

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 11.2.0.2	10098816	11g database software Release 2 (11.2.0.2) Patch Set 1.

### Oracle 11.2.0.2 database software for Red Hat Linux 32-bit (versions 3 and 4), Linux x86-64 (versions 3 and 4), and Sun Solaris/IBM AIX/HP-UX 64-bit

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 11.2.0.2	10098816	11g database software Release 2 (11.2.0.2) Patch Set 1.

**Oracle 11.2.0.2 database software for Red Hat Linux 64-bit (versions 3 and 4)**

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 11.2.0.2	10098816	11g database software Release 2 (11.2.0.2) Patch Set 1.

**Oracle 11.2.0.3 database software****Oracle 11.2.0.3 database software for Microsoft Windows 32-bit**

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 11.2.0.3	10404530	11g database software Release 3 (11.2.0.3).
2 11.2.0.3	14613222	11g database software Release 3 (11.2.0.3) Patch Set 11.
3 11.2.0.3	16042648	11g database software Release 3 (11.2.0.3) Patch Set 15.

**Oracle 11.2.0.3 database software for Microsoft Windows 64-bit**

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 11.2.0.3	10404530	11g database software Release 3 (11.2.0.3).
2 11.2.0.3	14613223	11g database software Release 3 (11.2.0.3) Patch Set 11.
3 11.2.0.3	16042648	11g database software Release 3 (11.2.0.3) Patch Set 15.

**Oracle 11.2.0.3 database software for Red Hat Linux 32-bit (versions 3 and 4), Linux x86-64 (versions 3 and 4), and Sun Solaris/IBM AIX/HP-UX 64-bit**

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 11.2.0.3	10404530	11g database software Release 3 (11.2.0.3).
2 11.2.0.3.4	14275605	Patch Set Update 11.2.0.3.4.
3 11.2.0.3.5	14727310	Patch Set Update 11.2.0.3.5.

## Oracle 11.2.0.3 database software for Red Hat Linux 64-bit (versions 3 and 4)

Install the patches in the order that they appear in the table.

Oracle database version	Patch number	Notes
1 11.2.0.3	10404530	11g database software Release 3 (11.2.0.3).
2 11.2.0.3.4	14275605	Patch Set Update 11.2.0.3.4.
3 11.2.3.0.5	14727310	Patch Set Update 11.2.0.3.5.

## Minimum Oracle software components required for the Central Designer

### Oracle client

When you install the base release of Oracle software, you must select the following database components:

- Oracle Client.
- Oracle Services for Microsoft Transaction Server (MTS).
- Oracle Data Provider (ODP) for .NET.

## Minimum Oracle patches required for the Central Designer Oracle client

Install the patches in the order in which they appear.

**Note:** Oracle database version 10.2.0.4 no longer receives patch support.

Oracle database version	Patch number	Notes
<b>For 10.2.0.4</b>		
1. 10.2.0.1	n/a	Base release of Oracle 10.2.
2. 10.2.0.2.20	5482266	Patch for Oracle Data Access Components.
3. 10.2.0.4	6810189	10g Release 2 (10.2.0.4) Patch Set 3.
4. 10.2.0.4.3	6880880	Patch for OPatch.
5. 10.2.0.4 (Patch 20)	<b>32-bit</b> —8439220  <b>64-bit</b> , one of the following: <ul style="list-style-type: none"> <li>• <b>AMD</b>—8439221</li> <li>• <b>Itanium</b>—8439222</li> </ul>	Patch 20 for Oracle 10.2.0.4.
6. 10.2.0.4 (Patch 39)	<b>32-bit</b> —1008801  <b>64-bit</b> —1000804	Patch 39 for Oracle 10.2.0.4.
<b>For 10.2.0.5</b>		

Oracle database version	Patch number	Notes
1. 10.2.0.1	n/a	Base release of Oracle 10.2.
2. ODAC 10.2.0.2.21	n/a	To install ODP.NET 2.x.
3. 10.2.0.5	8202632	10g Release 2 (10.2.0.5) Patch Set 4.
<b>For 11.2.0.2</b>		
1. 11.2.0.2	10098816	11g Release 2 (11.2.0.2) Patch Set 1.
<b>For 11.2.0.3</b>		
1. 11.2.0.3	10404530	11g Release 3 (11.2.0.3).
2. 11.2.0.3	<b>32-bit</b> —14613222 <b>64-bit</b> —14613223	11g Release 3 (11.2.0.3) Patch Set 11.
3. 11.2.0.3	16042648	11g Release 3 (11.2.0.3) Patch Set 15.



## CHAPTER 2

# New features and enhancements in this release

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## Annotated Study Book changes

The Annotated Study Book has been updated to include support for new design features:

- (CD-12382)—An icon now appears for a repeating section and fixed repeating section if the section itself is marked SDV Required. In previous releases, an icon appeared for a repeating section if an item in the repeating section was marked SDV Required. This new functionality displays more accurate data in the Annotated Study Book.
- Items and repeating sections that are critical for source verification are now marked.
- Fixed sections that support fixed items in itemsets now appear.
- An optional table listing information about the following is now available:
  - Review states and review stages defined for a study.
  - Items designated as Personal/Protected Health Information (PHI).

# Central Designer Administrator changes

## New study team administration rights (CD-11551)

The Study Administration and Library Administration rights groups now include rights that allow users to perform administrative tasks on study teams.

In Central Designer release 2.0, to perform administrative tasks on a study or library team, one of the following must be true:

- You have the Perform all activities in all studies and libraries ("super-user") right.
- For studies:
  - You are a member of the study team and have the Perform team administration study right.
  - You have the Administer study teams right in the Study Administration application rights group.
- For libraries:
  - You are a member of the library team and have the Perform team administration library right.
  - You have the Administer library teams right in the Library Administration application rights group.

In previous releases:

- You could perform administrative tasks for a study team if you had one of the following rights in the Study Administration application rights group:
  - Create studies
  - Modify study properties
- You could perform administrative tasks for a library team if you had one of the following rights in the Library Administration application rights group:
  - Create libraries
  - Modify library properties

The ability to perform administrative tasks on study and library teams is removed from the previously mentioned rights.

## New password management settings (CD-12348)

The following new password management settings now exist in the Central Designer Administrator application.

- **Enforce password history**—When selected, you can specify the number of recently used passwords that are remembered in the system and cannot be reused.

For example, if you specify four in the Enforce password history field, when changing a password, users cannot use any of their four previously used passwords.

- **Manually reactivate user**—When selected, if the user is locked out of the Central Designer

application after exceeding the allowed number of login attempts, the user cannot log back in until an administrator reactivates the user account.

The default minimum password length has been changed to 8 characters, and the minimum length cannot be fewer than 6 characters.

If you upgrade to this release from an installation that uses a smaller minimum length, the upgrade does not affect:

- The existing minimum password length setting in the Central Designer Administrator application. For example, if the minimum password length is 4, it remains 4 after the upgrade. However, when changing the minimum password length setting, an administrator must change the minimum length to a value of 6 or greater.
- Existing user passwords, including those with a length of fewer than 8 characters. However, when the passwords expire, the new passwords must conform to the password management settings then in effect.

## Adding sponsor information

You can now add sponsor information in the following ways:

- In the Central Designer Administrator application:
  - Specify one or more sponsor names and descriptions in the System Config > General > Sponsors workspace. The list of sponsors appears in the Central Designer application in the Sponsor drop-down list on the General tab of the study editor.

**Note:** To work in the Sponsors workspace, you must have one or more Sponsors Administration rights. For more information, see the *Administrator Guide*.

- In the Central Designer application:
  - Type the sponsor name in the Sponsor drop-down list on the General tab of the study editor, and then save the study. The new sponsor appears in the System Config > General > Sponsors workspace in the Central Designer Administrator application and can be used with other studies.

In previous releases, you associated a study with a sponsor by typing the sponsor name in the custom properties of a study. In Central Designer release 2.0, to associate a sponsor with a study in the Central Designer application, you type or select the sponsor name in the Sponsor drop-down list on the General tab of the study editor.

**Note:** For existing studies for which a sponsor was defined, the sponsor remains associated with the study, but does not appear in the Central Designer Administrator application.

## Enabling a target application in the Central Designer Administrator application

When you install the Central Designer application, supported target applications are installed automatically. A target application is an application to which you deploy a Central Designer study.

In the Central Designer Administrator application, the list of installed targets appears in the System Configuration > General > Targets workspace. In the Targets workspace, you can enable target applications that you plan to use, or disable target applications that you do not plan to use. When you

enable a target application, the target appears in the Central Designer application in the Targets field on the General tab for a study and in the Targets drop-down list in the application toolbar. You use the Targets drop-down list in the application toolbar to filter the information that appears in the Central Designer application.

**Note:** In Central Designer release 2.0, the InForm application is the only supported target application.

## New names for InForm-specific rights

The names of the following rights have been changed to indicate that they provide users with the ability to perform the specified tasks for study objects that are used in InForm studies only.

Previous name	New name
<b>Library Design and Study Design roles</b>	
Create forms	Create InForm forms
<b>Library Rule Design and Study Rule Design roles</b>	
Define and modify rule templates	Define and modify InForm rule templates
Define and modify data-entry rules	Define and modify InForm data-entry rules

## New Server Management view

The Central Designer Administrator application now contains the Server Management view, which contains the following workspaces:

- **Event Log Messages**—Perform management tasks for a web farm including viewing the event log messages, changing the default limit for the number of entries in the log, and deleting entries in the log.
- **Job Scheduler (formerly Job Scheduler Machine)**—Determine and select a primary job scheduler, view the servers that are in a web farm, remove a server from a web farm, check the status of the primary Job Scheduler, view job properties, and cancel a job.

## Managing jobs and the job scheduler

You can now use the Job Scheduler workspace to:

- **View the status of a job scheduler**—In the upper-right of the Job Scheduler workspace, an icon appears, and text indicates whether the job scheduler is running.
- **View properties for a job**—In the grid section of the Job Scheduler workspace, you can select a job and view its properties by using the right-click menu or clicking the Properties button on the toolbar.

- **Stop running jobs**—In the grid section of the Job Scheduler workspace, you can select one or more jobs and stop the jobs from running. When you stop a job, the job is removed from the job queue. You can:
  - Stop one or more jobs at a time.
  - Stop a job that is currently running or is in the job queue.

You cannot stop a job that is scheduled to run on a recurring basis. If you select a scheduled job in the grid, the Stop Job button and the Stop Job right-click menu option are disabled.

## Change to report functionality

The feature (**System Configuration > Reports Definitions > Import**) that allowed a user to import an XML report definition that could be run as a custom report has been removed from the Central Designer Administrator application.

If you have defined custom reports, you must export the XML report definition file before performing an upgrade. After the upgrade, you must re-import the report definitions.

- 1 In the Central Designer Administrator application, export the XML report definition file. For more information, see the *Administrator Guide*.
- 2 Upgrade the Central Designer software.
- 3 Modify the XML file exported in Step1, replacing any instances of **assembly="PhaseForward.Designer.ServerCore"** with **assembly="Oracle.Designer.ServerCore"**.
- 4 Re-import the report definitions on each Central Designer application server:
  - a Copy the updated custom reports definition file to the following location, overwriting the existing file:

```
<designer_root>\
DBSchema\_Last\Datainstaller\DesignerReportsDefinitions.xml
```

where *<designer\_root>* is the root directory of the Central Designer installation.

- b From the *<designer\_root>\bin* directory, run the UpdateReports.bat file.

The UpdateReports.bat file updates the definitions of the custom reports in the database.

For information about how to manage the export, upgrade, and import, see the upgrading chapter of the *Installation Guide*.

For information about developing and importing new custom reports, contact Oracle Services.

## Documentation reorganization

The end user documentation for the Central Designer application has been reorganized to include the following documents:

- *InForm Design Guide*—Provides information about and procedures for setting up and administering a study; designing a study workflow, forms, rules and mappings; and formatting layouts for a study that you deploy to the InForm application.
- *User Guide*—Provides information about and procedures for using the user interface components in the Central Designer application, planning a study, collaborating, and reusing and managing study objects.
- *Rules Reference Guide*—Provides reference information about rule expressions and available components for use in rules such as functions, constants, and methods.

For a complete list of the Central Designer documentation, see *Central Designer 2.0 documentation* (on page ix).

# Installation and upgrade changes

## ClickOnce client applications

The Central Designer and Central Designer Administrator applications are now ClickOnce client applications. You start a ClickOnce application by clicking a link from an internet browser window.

When you click a link for either application, the Central Designer server checks whether the release that is installed on the server matches the files that are cached on your computer:

- If the server has been newly installed or has been upgraded after your last logon, the files that are necessary to run the application are cached on your computer, and then are used to open the application.
- If the server has not been updated since your last logon, the cached files on your computer are used to open the application.

ClickOnce client applications provide the following benefits:

- **No need to uninstall**—Because the client applications are no longer installed on your computer, you no longer need to uninstall the client applications.
- **Connecting to multiple servers**—The ClickOnce functionality allows you to run client applications from multiple Central Designer application servers, even when the servers have different releases. However, in this release you can install client applications only for the current release.
- **Redundant features removed (CD-11390)**—Because you can now connect to multiple servers by navigating to the URL for each server and opening the client applications, the Connection drop-down list on the logon window and the Help > View Connection Information menu option are no longer necessary and have been removed.

Additionally, because there is no longer a need to upgrade the client applications, the auto-updater feature is no longer available.

For more information, see the *Installation Guide*.



# Data mappings (formerly logical schemas)

## Logical schemas renamed

Logical schemas are now called data mappings in both the Central Designer and Central Designer Administrator applications and the documentation. You view data mappings, data sets, and data series in the Data Mappings Explorer bar in the Project Explorer.

**Note:** The documentation also refers to mappings, which are created when you add items to data sets or data series, and are not the same things as data mappings.

## PhysicalMappingType property and upgrade implications

The value of the PhysicalMappingType property is now set to one of the following read-only values when you create a data mapping:

- CDD mappings—CDD
- CIS mappings—CIS
- Rule mappings—None

In previous releases, you could set the PhysicalMappingType property of a logical schema to All, which allowed the data mapping (formerly called logical schema) to be used for both CDD and CIS. The All option is no longer available, because you can no longer use a data mapping for both CDD and CIS.

The following table describes how the values of the PhysicalMappingType property are set during an upgrade. These values are read-only.

PhysicalMappingType property	
Value in previous releases	Value after upgrade
CIS	CIS
CDD	CDD
None	None
All	None


For instructions for updating data mappings before you upgrade to the Central Designer 2.0 release, see the *Installation Guide*.

# Menus and toolbars

## Toolbar changes

The top toolbar in the Central Designer application now provides access to key functionality, including import, export, and validation.

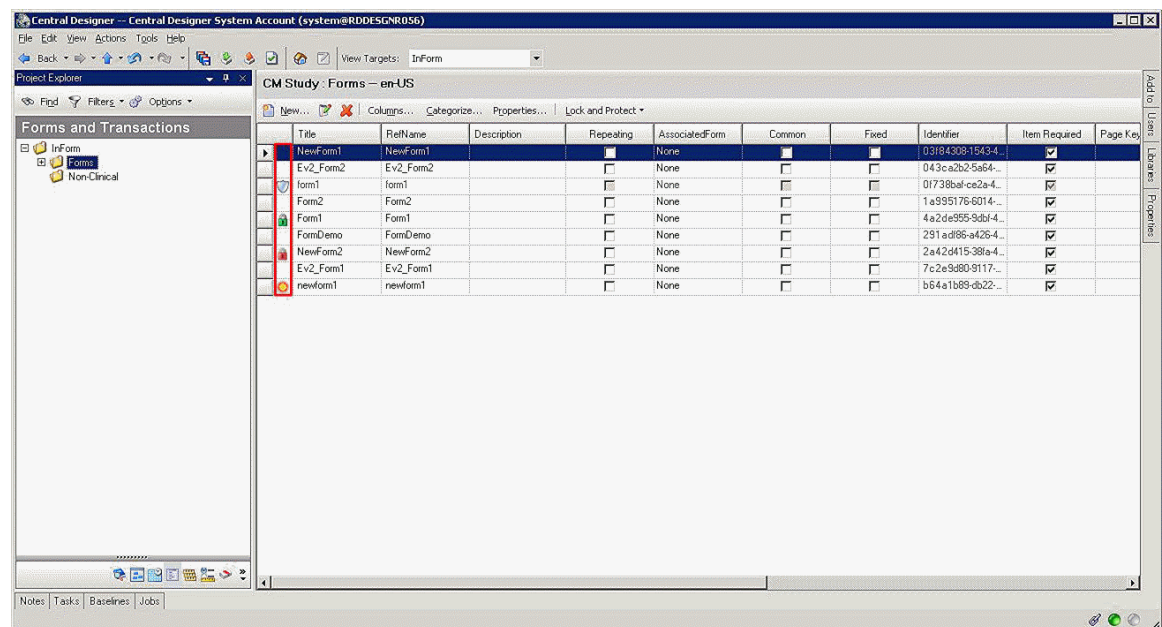
Additionally, the status toolbars, which appear at the bottom right of both application windows, have been updated:

- The updater icons are no longer available. The update feature is no longer required because the client applications are now ClickOnce applications. For more information, see *ClickOnce client applications* (on page 20).
- In the Central Designer application, a new icon () indicates whether the application is pulling information from the application server.





## Additional information in study object editors

Many of the study object editors in the application have been modified to include additional information, which allows you to work more easily with the study objects and study design. In this release, the toolbars and context menus for the study objects in the editors have been enhanced to provide additional functionality, and the editors now include a status column, which provides icons to indicate the status of the study object in each row of the grid.

The status column appears when a study object is modified or added during the application session. For example, if you create a new form, and then open the Form editor, an icon appears to indicate which form is new.



The status column displays the following status icons:

- —Study object is new.
- —Study object is protected.
- —Study object is locked by you.
- —Study object is locked by another user.

## Navigating to an Explorer bar, browser, or editor

The Central Designer application now provides a tool, called the Go To Window tool, which allows you to navigate the user interface more easily. The Go To Window tool displays a list of Explorer bars and browsers in the application, and editors that you can navigate to based on your current location in the user interface. For example, from the Study Information > General tab, you can navigate to any of the Explorer bars or browsers in the application, and any of the editors within the Study Information Explorer bar.

To use the Go To Window tool, in the application toolbar, select Tools > Go To Window.

## Performance improvements

Performance has been improved for the following areas:

- (CD-9826)—Searching using the Libraries Browser.
- (CD-11309)—Deleting a project or study.

# Project Explorer


## Viewing the parents of a linked study object (CD-7683)

You can now view the parents of a form, section, item, codelist, or codelist item that:

- You copied as a link, such as by using the Copy > Link option.
- Is used on multiple study objects in a study or library.

This information appears in the Show Parents dialog box. This enhancement allows you to see where a study object is used in a study so that you can assess the impact of changes.

### Notes:

- Show Parents is available in both a study and library, but it lists only the parents in the current project.
- Show Parents is not available for a study object on a single parent that appears multiple times, such as an item on a form that is used multiple times in a study.
- When a study object has multiple parents, a blue icon () appears in the upper-left corner of the study objects icon in the Project Explorer.

**Note:** If the icon does not appear, the study object might be used multiple times in the study but always on the same parent. The icon and Show Parents menu option appear only when a study object has multiple parents.

To view parent information:

- Right-click a study object, and select Show Parents.

## Explorer bar grouping in the Project Explorer

You can now find study and library objects more easily in the Project Explorer. The Project Explorer now contains Explorer bars, which are used to organize study objects by type.

Study Explorer bars	Available functionality
Study Information	<ul style="list-style-type: none"> <li>• Define administrative information for the study.</li> <li>• View deployment packages.</li> <li>• Create InForm review states.</li> </ul>
Visit Schedule	View the study design.
Elements and Events	<ul style="list-style-type: none"> <li>• Create study elements and study events.</li> <li>• Create a study workflow.</li> </ul>
Forms and Transactions	Create forms and sections for use in the InForm application.
Items	Create items to add to forms and sections.

Study Explorer bars	Available functionality
Codelists	Create codelists and codelist items to add to items.
Data Mappings	Define data mappings. For more information, see <i>Data mappings (formerly logical schemas)</i> (on page 21).
Library Explorer bars	Available functionality
Library Information	Define administrative information for the library.
Elements and Events	Create study elements and study events for the library.
Forms and Transactions	Create InForm forms and sections for the library
Items	Create items for the library.
Codelists	Create codelists and codelist items for the library.
Data Mappings	Define data mappings for the library. For more information, see <i>Data mappings (formerly logical schemas)</i> (on page 21).
Types and Templates	Define types and templates for the library.

## New and changed functionality in the Project Explorer

In the Project Explorer, you can:

- Configure the Explorer bar view:
  - **Options > Explorer View > Bottom Grouping**—All Explorer bars appear at the bottom of the Project Explorer. When you select an Explorer bar, it is highlighted. In the Bottom Grouping view, you can slide a splitter bar to control how many bars are visible in the Project Explorer.  
  
When an Explorer bar is not visible, an icon representing the Explorer bar appears at the bottom of the Project Explorer.
  - **Options > Explorer View > Zipper Grouping**—The Explorer bar display is dependent on which Explorer bar you select. When you select an Explorer bar, the Explorer bars that appear above it in the list of Explorer bars move up, and remain above it.
- Search for study objects within the Project Explorer using a new Find option.

**Note:** Objects filtered from view are ignored when you use the Find option.

- Sort study objects in each study object container.
- Filter container objects by:
  - **All Objects.**
  - **Modified Objects**—Study objects modified since the project was last saved.

- **Local Locks**—Study objects you locked.
- **Remote Locks**—Study objects locked by other users.

The Explore From Here option has been removed because study objects are now organized into groups.

## Reorganized information in the Project Explorer

To accommodate new features, some administration-related tabs have been moved in the Central Designer application.

Tab	Location in the Project Explorer
Teams tab	Study Information Explorer bar > <study name>
References tab	
Constants tab	
Administration tab > Coding tab	Study Information Explorer bar > <study name> > InForm
Functions tab	
Administration tab > Deployment tab > Languages/Locales	Study Information Explorer bar > <study name>
Administration tab > Deployment tab > Form Layouts	<ul style="list-style-type: none"> <li>• To name layouts: Tools &gt; Layout Names Manager</li> <li>• To select a layout for a form: Forms and Transactions Explorer bar &gt; Forms &gt; &lt;form name&gt;</li> </ul>

# Rules and global conditions

## Dynamic prompts in the rule expression workspace

When you create an expression, you can type directly in the Expression workspace, and you can drag rule model objects from the tabs at the right side of the windows where you create a data-entry rule, workflow rule, or global condition.

When you type in the Expression workspace, prompts appear dynamically as you type, listing the rule model objects that are available for you to use based on the scope of the rule and the content of the expression. As an alternative to dragging rule model objects from the tabs, you can select the objects from the prompts.

A dynamic expression prompt appears when you type a period. The prompt contains a list of rule model objects that you can select.

- To use the value of a study object or rule model property, type **this.**, and select the study object or property from the dynamic expression prompt.
- To use a function, type **Functions.**, and select the function from the dynamic expression prompt.
- To use a constant, type **Constants.**, and select the constant from the dynamic expression prompt.
- To use a data mapping study object or a rule model property, type **DataMappings.**, and select the study object or rule model property from the dynamic expression prompt.

When you select a rule model object that requires parameter values (for example, a function or method), an open parenthesis mark follows the name of the rule model object, and a tooltip indicates the parameters and their data types. The tooltip also appears when you point to the name of the rule model object.

## Show All checkbox is now selected by default in rule editors (CD-11807)

When you create a rule, the Show All checkbox is now selected by default for the following dialog boxes. This change allows the study object tree to show all methods and properties by default so that you can more easily locate study objects to add to rules.

- Edit Global Conditions dialog box
- Invoke Function dialog box
- For data-entry rules:
  - Expression Tab in the New InForm Rule and Edit Rule dialog boxes
- For workflow rules:
  - Workflow Expression Editor dialog box
- Rule Actions:
  - Query Action dialog box
  - Email Action dialog box
  - SetValue Action dialog box



- Set Review State Action

## Preferred size retained for dialog boxes when creating rules (CD-12714)

When you create a rule, if you resize a dialog box, close the dialog box, and then re-open the dialog box, it now appears in the adjusted size. The preferred dialog box size is used in the same Central Designer session, and each subsequent session.

## Global conditions

### Changes to the Edit Global Conditions dialog box

The name of the Workflow Condition Editor dialog box has been changed to Edit Global Conditions dialog box. This dialog box appears when you click Global Conditions on the Workflow Diagram toolbar for a study design, study element, or study event.

Additionally, the following changes have been made to the dialog box:

- List of global conditions
  - The list now displays more global conditions at a time.
  - The list is now a grid that you can sort.
  - You can now resize and adjust the proportions of the dialog box.
- Add, Edit, and Delete buttons
  - Use these new buttons for working with global conditions.
  - You add and edit a global condition in a dialog box.

### Changes to the Assign Conditions dialog box

In the Assign Conditions dialog box:

- A tooltip now appears when you point to a global condition.
- The Defined Conditions list has been renamed to Assigned Conditions.
- (CD-11459)—Global conditions in the Assigned Conditions list are now listed in alphabetical order.

### Assigning InForm global conditions

You can assign InForm global conditions to the following study objects, regardless of their children:

- Study elements
- Study events
- Forms

**Note:** You can still assign only one global condition to each study object.

## Labels for global conditions in a workflow

In Central Designer release 2.0, when a global condition is on a workflow object, a rectangular shape appears above the study object in the workflow with a label that indicates the name of the global condition. In previous releases, the label was Global condition.

## Data-entry rules

### Form Submission selected by default for data-entry rules (CD-6641)

When you create a data-entry rule, Form Submission is now selected by default in the Rule Wizard > Preconditions tab > Evaluate on Event option. This selection simplifies your workflow because most data-entry rules run upon form submission.

**Note:** The Rule Wizard appears when you create a data-entry rule.

### Sorting rules in the Rules tab (CD-8335, CD-11123)

In the Rules tab, you can now sort the column that displays the results of the syntax check. When you have a large number of rules, sorting by the syntax check field provides a better snapshot of the validity of your rules.

### Trigger dependencies created automatically for rules on associated forms (CD-10327)

Additional trigger dependencies are now created in the InForm application for a data-entry rule using associated forms.

- When the expression of a data-entry rule references the RelatedData rule model property, a trigger dependency is created for both the item that is explicitly referenced and the item that is referenced through the RelatedData property. A trigger dependency is also created for the form association.
- For associated forms, the data-entry rule runs when:
  - You enter data on the form items and submit the form.
  - You associate forms for the first time, and submit one of the forms.

Additionally, an algorithm that is used during an incremental deployment has been modified as a result of this change. This change applies to all incremental deployments, not just deployments in which new trigger dependencies are created.

## Selecting multiple data-entry rules for enabling, disabling, and deleting (CD-10651)

On the Rules tab, you can now select multiple data-entry rules and enable, disable, or delete them.

Changes to the Rules tab:

- Toolbar buttons and right-click menu options have been renamed; these options now enable and disable only the selected rule or rules in the grid.
  - Enable Rules is now Enable.
  - Disable Rules is now Disable.
- To select all rules in the grid, right-click and select Select All.

## Rule templates

### New rule template for checking future dates against the site date and time (CD-4521)

A new rule template, `_FutureDateCheck`, is now available for date time items.

Component	Description
Name	<code>_FutureDateCheck</code>
Description	<p>Checks whether the specified date and time is in the future, as compared to the site date and time.</p> <p>Site information is based upon the time zone of the data-entry site rather than the time zone of the InForm server.</p>
Returns	<ul style="list-style-type: none"> <li>• <b>True</b>—The entered date and time are in the future, compared to the site date and time.</li> <li>• <b>False</b>—The entered date and time are empty or in the past, compared to the site date and time.</li> </ul>
Display text	<code>!Empty &amp;&amp; _CompareDates(Value, GetSiteTime()) &gt; 0</code>

**Note:** This rule template is available only for items that you create after upgrading to Central Designer release 2.0.

## New rule template for checking partial completeness of a compound item (CD-10176)

A new rule template, `_PartialCompletenessCheck`, is now available for compound and blood pressure items. This feature incorporates the functionality of the existing `Complete` method into a rule template.

Component	Description
Name	<code>_PartialCompletenessCheck</code>
Description	Checks whether child items within a compound item are partially complete. A partially complete compound item consists of one or more empty child items and one or more complete child items.
Returns	<ul style="list-style-type: none"> <li>• <b>True</b>—Child items within a compound item are partially complete (one or more child items are empty, and one or more child items are complete).</li> <li>• <b>False</b>—Child items within a compound item are all either empty or complete.</li> </ul>
Display text	<code>!this.Empty &amp;&amp; !this.Complete</code>

**Note:** This rule template is available only for items that you create after upgrading to Central Designer release 2.0.

## Enhanced security for user-defined functions and assemblies

In Central Designer release 2.0:

- User-defined functions that use the Log4Net application must use Log4Net version 1.2.10.0 or the Central Designer Log4Net version wrapper.

User-defined functions for studies that were created in previous versions of the Central Designer application and that do not use version 1.2.10.0 must be recompiled or updated to use the Log4Net wrapper and re-imported into the Central Designer application when you upgrade to this release.

For more information, see *New script to detect user-defined functions and assemblies that need to be recompiled or signed (CD-12685)* (on page 33).

- If a study contains a user-defined function that performs a task such as reading from or writing to a file, accessing the database or the registry, making web service calls, running an external application, sending an email, or using the event log directly, if the assembly for the user-defined function is not signed with a strong named signature that is valid and trusted, the function does not work in the InForm application.

For specific instructions and information about creating and signing an assembly with a strong named signature, see the *Rules Reference Guide* and the documentation for the tool that you use to create the strong name.

- Validation checks have been added to ensure that user-defined functions are valid and trusted.

For more information, see the *Validation checks for user-defined functions* (on page 34).

### New script to identify user-defined functions and assemblies that must be recompiled or signed (CD-12685)

To allow you to identify user-defined functions or user-defined function assemblies that must be modified, the Central Designer application now includes a script called `ValidateCustomFunctionAssemblies.exe`, which identifies study and library projects that contain:

- User-defined functions that reference a version of the Log4Net application prior to version 1.2.10.0.
- User-defined functions with assemblies that are:
  - Unsigned.
  - Not signed with a strong named signature.
  - Signed with an invalid or untrusted signature.

When you upgrade to Central Designer release 2.0, you can run the script against the Central Designer database. The script is available on the product ISO.

For specific instructions and information about creating and signing an assembly with a strong named signature, see the *Rules Reference Guide* and the documentation for the tool that you use to create the strong name.

## Validation checks for user-defined functions

The following validation checks now occur when you validate an InForm study:

- A warning occurs if a study or library contains a user-defined function that uses an incorrect version of the Log4Net application.
- A warning occurs if a study or library contains a user-defined function assembly is:
  - Unsigned.
  - Not signed with a strong named signature.
  - Signed with an invalid or untrusted signature.

For more information, see the *InForm Design Guide*.

## Function assemblies renamed

The names of assemblies for user-defined functions have been changed as follows.

Pre-release 2.0 name	Name in release 2.0
PhaseForward.Designer.ExternalFunctions.dll	Oracle.Designer.ExternalFunctions.dll
PhaseForward.Designer.PrebuiltFunctions.dll	Oracle.Designer.PrebuiltFunctions.dll

This name change requires that you recompile all user-defined function assemblies after upgrading to release 2.0 of the Central Designer software. For more information, see the *Installation Guide*.

# Study and library setup

## Study and library projects

- Creating a new study or library project:
  - When you create a new study or library, its study or library project is now created automatically.
  - By default, the study or library and its study or library project have the same name. You can change the name and description of the study or library project using the Project tab of the New Study dialog box or the Library Project tab of the New Library dialog box.
  - You can now specify the target applications to which a study can be deployed or for which the study objects in a library can be used.

**Note:** In Central Designer release 2.0, the InForm application is the only supported target application.

- (CD-10852)—The shortcut for creating a new library project has been changed from Ctrl+L to Ctrl+Shift+N.
- Opening a study or library project:
  - (CD-10532)—The Open Project dialog box has been modified:
    - Icons now indicate whether a project is a study project or library project.
    - A Project Types drop-down list allows you to filter your view to only study projects or library projects.
    - A text field allows you to type the name or description of a project, and the dialog box shows only the projects that match.
    - A count of the number of projects displayed in the dialog box appears in the footer.

## Sortable templates in the New Study dialog box

Study templates now appear in a sortable grid in the New Study dialog box.

To view standard grid options:

- Right-click a column header and select an option to show or hide columns or to filter.

To view additional information about a template:

- Point to the template and read the tooltip.

For information about other changes in the New Study dialog box, see *Specifying target applications for a study or library* (on page 39).

## Study design features

### Ability to mark an item as containing Personal/Protected Health Information

You can now set a custom property called PHI for an item in the Central Designer application to indicate that a user might enter Personal/Protected Health Information (PHI) for the item in an InForm study.

If you set the PHI property to True for an item:

- A warning appears when you close the Rule Wizard if you create a rule with an email action and you add the item to the subject or body of the email.
- A validation error occurs if a rule with an email action contains the item in the subject line or body of the email.

This functionality allows you to prevent data designated as PHI in the study design from being sent in an email triggered by a rule in the InForm application. Because email from the InForm application is not encrypted, sending PHI in email is not allowed.

PHI data is also highlighted in a new table in the Annotated Study Book. For more information, see the *InForm Design Guide*.

### InForm review states (CD-11080)

In the InForm application, as many as five form-level customizable states, called review states, are available in the Data Viewer in addition to the standard InForm states. If defined, custom review states can provide users with greater flexibility in tracking the review progress.

Each custom review state has three customizable stages. For example, you can create two custom review states, labeled Medical Review and Data Management Review, each with three stages of Needs Review, Pending, and Reviewed. A custom review state is in one of its three stages at any time. The first stage is the default stage for a defined custom review state.

In the Central Designer application, you can create as many as five review states for a study, each having three review stages. You can perform the same actions on a review state as on other study objects. For example, you can lock, unlock, publish, unpublish, copy, and paste a review state, and you can mark it as a template and copy it from a library into a study.

Additionally, you can write rules that read and set the review stage of a form.

Review states appear in the Review States editor, which is active when you select the Study Information Explorer bar > InForm > Review States folder in the Project Explorer. You define a review state and its review stages in the Review State editor. The annotated study book for a study optionally includes a listing of the review states defined for the study, along with the review stages of each.



## New Search Text dictionary target field (CD-11959)

For all dictionary types, a new dictionary target field called Search Text appears. For studies that use the Central Coding application for coding verbatim, the Search Text field returns the search text used by coders when a verbatim is manually coded. The returned search text allows sponsors to verify that coders used appropriate search terms when manual coding is required.

## InForm fixed repeating sections (CD-12066)

You can now create a repeating section that is marked as fixed, and in which one or more items in the repeating section is marked as fixed. A fixed item contains text that is static and repeated in each instance of the item in the section. Creating a fixed repeating section allows you to gather the same piece of data multiple times for the same item. For example, a user might need to record a subject's heart rate while sitting and while standing, at specified time intervals after the subject receives a drug.

In the Central Designer application, you design a fixed repeating section with a specified number of columns and rows. You can also create rules that refer to the items, codelists, and codelist items in a fixed repeating section.

In the InForm application, a fixed repeating section appears in a grid, with a column for each item and a row for each piece of data a user must collect. A fixed repeating section is referred to as a Repeating Data itemset in the InForm <app>.

When you preview a form layout, you can view the fixed repeating section in grid landscape view or portrait view. The view that appears by default is configured using the Tools > Options > Fixed Repeating Section > Default view type setting. When you generate the Annotated Study Book for your study, you can view the fixed repeating section in grid landscape view and portrait view. For more information, see the *InForm Design Guide*.

## Support for critical source verification

You can now designate specific items and repeating sections as critical for source verification, by setting the new SDV Critical property to True. By default, the SDV Critical property is set to False.

If a repeating section or an item is marked critical for source verification, the Central Designer application marks it automatically as requiring source verification.

The Annotated Study Book now indicates repeating sections and items that are marked as critical for source verification.

## Support for off-line translation

You can export all text strings for a target application and locale into a CSV file, translate them locally, and then re-import the translated strings.

This option is useful for outsourcing translations. After exporting the text strings for a selected target application and locale to a CSV file, you can send the file to a third-party translation vendor to translate the strings. When the translated strings are returned, you import them back into the Central Designer database. You perform the export and import separately for each locale to be translated.

You can export and import text strings at any time during the development of a study, including updates after a study has gone live. For example, to generate a test file to validate the process with a

translation vendor, you can export the text strings for a partially developed study. When the study is completely developed, you can export the strings again, have the vendor translate the remaining strings, and import the completed translation file.

Additional rights are added to support this feature.

## **Adding study objects using the Add To browser or dragging and dropping**

To allow you to easily add study objects using the re-organized Project Explorer, you can drag and drop study objects in the Project Explorer or use the new Add To browser.

To drag and drop a study object in the Project Explorer:

- 1 Open the Explorer bar and folder in which the target study object exists.
- 2 Drag the study object and hover over the Explorer bar onto which to drop it.

The Explorer bar is selected and the container editor appears.

- 3 Drag the study object into the study object editor grid for the study object onto which to drop it.

The Add To browser displays the list of study objects, within the current study, that you can add to the selected study object. For example, if you select a form, the Add To browser contains a list of items and sections that you can add to the selected form.

In the Add To browser, you can:

- Filter the list of available study objects by:
  - Typing a keyword.
  - Specifying the fields on which to apply the filter (RefName, Title, Description, or Labels).
- Display the filtered list of study objects by RefName or Title.
- Do the following for the selected study object:
  - Copy a study object with or without its children.
  - Add a link to a study object.

Before you add a study object using the Add To browser, you can also view details about the study object, including:

- Study object properties.
- Parent study objects.
- Form layout (available for InForm forms only).

# Target applications

## Specifying target applications for a study or library

A target application is an application to which you deploy a study from the Central Designer application. When you create a study or library, you select its target applications in the following locations:

- The New Study dialog box, which appears when you create a study.
- The New Study Library dialog box, which appears when you create a library.

You can modify target applications after you create a study or library. However, if a study or library contains study objects for a target application, you cannot deselect the target application until you delete the study objects.

**Note:** In Central Designer release 2.0, the InForm application is the only supported target application.

## Filtering your view of target application-specific study objects

The main toolbar contains a View Targets drop-down list that allows you to view objects for one target application or all target applications. Only the target applications that are enabled in the Targets workspace in the Central Designer Administrator application and selected in the Targets field in the General tab for a study appear in the list. For more information, see *Specifying target applications for a study or library* (on page 39).

**Note:** In Central Designer release 2.0, the InForm application is the only supported target application.

## Application areas affected by the target applications and View Targets settings

When you select a target application:

- In a library, you cannot publish study objects for unselected target applications.
- In a study, the Central Designer application does not perform validation checks related to unselected target application.

**Note:** General validation checks are performed in all studies, regardless of the target applications that you select. For more information, see the *InForm Design Guide*.

**Note:** In Central Designer release 2.0, the InForm application is the only supported target application.

## User interface changes

- (CD-9836)—In the History Viewer dialog box, the icon for sections now matches the section icon that appears in the Project Explorer.
- (CD-10227)—When you revoke or transfer a lock, you are now warned that unsaved changes made by the person who held the lock will be lost.
- (CD-10532)—The Open Project dialog box has been modified:
  - Icons now indicate whether a project is a study project or library project.
  - A Project Types drop-down list allows you to filter your view to only study projects or library projects.
  - A text field allows you to type the name or description of a project, and the dialog box shows only the projects that match.
  - A count of the number of projects displayed in the dialog box appears in the footer.
- (CD-10622)—In the Schedule of Events tab, which is available for a study design, the Remove Form option in the right-click menu has been renamed to Delete *<Target application> Form*.
- (CD-10868)—The *<None>* option has been moved to the top of the list in the Base Unit drop-down list, which is available on the Design tab for float, integer, and Yes/No items. In previous releases, this option was among other unit options in the list and was sometimes difficult to find.
- (CD-11192)—In the History Viewer dialog box, the Print button, which was always grayed out, has been removed.
- (CD-11238)—When you create a new date time item, the Year, Month, and Day components are now required by default. You can view the selection of these options in several locations, including the Design tab for an item.
- (CD-11377)—In the Rule Wizard > Actions tab, when you select Email as an action, you can press Ctrl+M to open the Email Action dialog box.
- (CD-11447)—The icons in the Project Explorer have been updated, and now better represent their associated study objects.
- (CD-11535)—The Job Scheduler Manager workspace is now called the Job Scheduler workspace.
- (CD-11658)—When you create a codelist item, you can now specify a code that contains up to 2000 characters.
- (CD-11800)—The FunctionType column no longer appears in the Edit Function dialog box. This column is unnecessary because the Function Type was the same for all functions.
- (CD-11847)—When you filter the study objects that appear in the Project Explorer, the heading in the Project Explorer now indicates that the results are filtered.
- (CD-12421)—The Workflow Grid tab (formerly called the Workflow Structure tab) for a workflow now includes an additional column that contains icons that indicate the status of the study objects in the workflow.
- (CD-13238)—In the New Rule dialog box, the list of Functions is sorted alphabetically in each category.

- (CD-13280)—In a library project, the File > View Annotated Study Book and File > Annotated Study Book Options menu options have been removed. The menu options were not applicable to library projects.
- Changes to the application window:
  - The browsers that appear at the bottom of the application window (Collaboration Notes Browser, Tasks Browser, Baselines Browser, and Jobs Browser) are now hidden by default.
  - The Properties Browser now appears on the right side of the application window, grouped with the Libraries Browser and Users Browser.

# Validation and deployment

## Ability to repair internal validation errors

When you validate a study, the Central Designer application now indicates whether internal errors exist. An internal error is a Central Designer error that was not caused by an action performed by a user and cannot be fixed in the user interface. For example, an internal error might occur if you attempt to validate a study that contains a study object that does not have a parent object, that has an empty text field, or that contains a dangling reference.

To repair these errors, when you validate a study, if an internal error occurs, you can now select the Repair Study option in the Baselines Browser, and the Central Designer application attempts to resolve the error.

For more information about running the study repair tool, see the *InForm Design Guide*.

## Deployment changes

Enhancements to the deployment process include:

- A Deployment container now appears in the Study Information Explorer bar.
- The Deployment Editor and the Baselines Browser now contain a column called Targets, which lists the target applications associated with the deployment package or baseline. In Central Designer release 2.0, the InForm application is the only supported target application.

**Note:** To open the Deployment Editor, in the Project Explorer, select Study Information Explorer bar > Deployment.

## New Validate toolbar button

The main toolbar now includes a Validate button. You can validate a study by selecting any study object, and clicking the Validate button. In previous releases, to validate a study, you had to select the study in the Project Explorer, right-click the study, and select Validate.

**Note:** The option to right-click a study and select Validate is still available.

## Additional validation changes

The following additional validation changes now exist in Central Designer release 2.0.

- (CD-13271)—DateTime is now a reserved word. If a study contains a study object with a RefName of DateTime, a validation error occurs.
- Workflow validation is more strict. If a validation error occurs for a workflow, refresh the workflow and re-validate the study.
- A study object cannot be a child of itself. A validation error now occurs if this exists in a study.

- A constant of data type date/time cannot contain a text string value. A validation error now occurs if this exists in a study.
- Validation checks for user-defined functions to ensure that:
  - User-defined functions use the correct version of Log4Net or use the Central Designer Log4Net wrapper.
  - Assemblies for user-defined functions are signed with a strong named signature that is valid and trusted when necessary. Validation warnings appear if errors of this nature exist.

For more information, see *Enhanced security for user-defined functions and assemblies* (on page 33).

# Workflow and Schedule of Events (formerly Time & Events)

## Workflow Grid tab changes (CD-11159)

The Workflow Structure tab is now named the Workflow Grid tab.

You can still create study objects for a workflow on the Workflow Grid tab, and the information is still synchronized with the Workflow Diagram tab.

However, the **Define Pre-Conditions for** section, which appeared on the bottom of the tab, is no longer available. Therefore, you cannot connect and order workflow objects in the Workflow Grid tab. Additionally, you can no longer create workflow rules and global conditions in the tab. All this functionality is still available in the Workflow Diagram tab.

The following changes have been made to the columns in the tab:

- The Name column is now called Title.
- The Type column now appears to the left of Title. You can click and drag the columns to change the order.

## Workflow changes

The appearance of some components in the Workflow Diagram tab has been updated.

- The look and feel of many workflow objects has been updated to make workflow objects easily recognizable.
- An icon in the lower-left corner of a study object indicates that the study object was designed for use in the InForm application.
- A clock icon in the lower-right corner of a study object shows and hides scheduling information.

## Workflow Diagram tab

### Icons for workflow objects

The look and feel of the Workflow Diagram tab has changed.

- The icons representing workflow objects have been modified with new colors and shading.
- You can view scheduling information by clicking the clock (🕒) icon in the lower-right corner of study elements and study events.



## Scheduling changes

In the Workflow Diagram, you can now view scheduling information by clicking the clock (🕒) icon in the lower-right corner of study elements and study events.

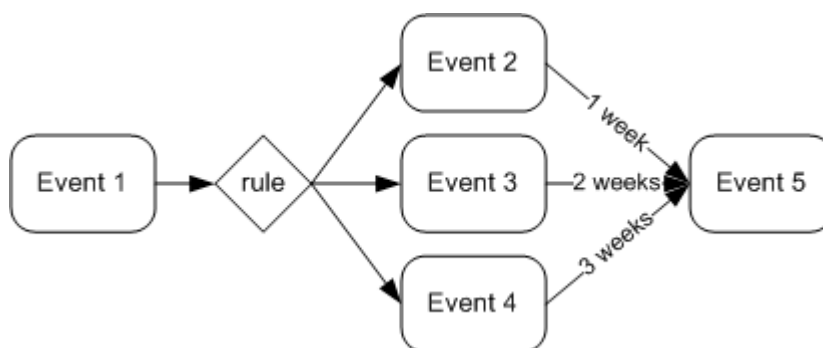
The titles of the dialog boxes that appear when you connect workflow objects have been modified:

- **Edit Schedule dialog box**—Appears when you connect a study element or study event to another study element or study event.
- **Edit Rule Action dialog box**—Appears when you connect a workflow rule to a form.
- **Edit Schedule and Rule Action dialog box**—Appears when you connect a workflow rule to a study element or study event.

## Workflow scheduling

You can now define multiple schedules leading into a study element or event. However, in the InForm application, the visit hours are always set to the schedule with the greatest amount of time.

For example, for the following workflow, Event 5 always occurs 3 weeks after Events 2, 3, and 4 in the InForm application.



## Schedule of Events (formerly Time and Events) tab

### Sorting forms (CD-9059)

You can now sort the following columns in the Schedule of Events tab:

- **Activity/Observation**—Displays either form titles or RefNames, depending on your viewing selection in the Project Explorer.
- **Short Title**—Displays form short titles.

In previous releases, the Schedule of Events (formerly Time & Events) tab displayed forms in the order in which they were created.



# Issues fixed in this release

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## Administration

### CD-10551

**Description:** In previous releases, in the Central Designer Administrator application, when you tried to create a new user when the Minimum password length option on the System Config > Security page was set to 8 or more characters, an error occurred, and the user was not created.

**Solution:** The software has been updated so that an error no longer occurs when you create a new user when the Minimum password length option is set to 8 or more characters.

Additionally, the maximum password length is now 20 characters. For information about additional password-related changes, see ***New password management settings (CD-12348)*** (on page 15).

Issue resolved. Previously reported Known Issue.

### CD-11870

**Description:** In previous releases, if you installed the Central Designer Administrator application on a machine that contained locales that were not supported by the Central Designer application, the unsupported locales could be saved to the Central Designer database. If you added the unsupported locales to the Central Designer database, you could not open the Central Designer Administrator application.

**Solution:** The software has been updated so that you can now add unsupported locales to the Central Designer database and open the Central Designer Administrator application without error.

Issue resolved. Previously reported Known Issue.

# Annotated Study Book

## CD-11451

**Description:** In previous releases, an incorrect visit hour calculation sometimes appeared in the Annotated Study Book and was deployed to the InForm application for a study workflow with branches.

**Solution:** The software has been updated so that when the branches have different scheduling values, the longer visit hours are no longer used to calculate the schedule for both visits in the branches.

Issue resolved. Previously reported Known Issue.

# Imports

## CD-10612

**Description:** In previous releases, in rare circumstances, when you tried to import a CSML file in which multiple data series shared the same DataPointMoniker, the import failed and an error occurred.

**Solution:** The software has been updated so that you can now successfully import a CSML file that contains multiple data series sharing the same DataPointMoniker.

One warning appears for each data series that shares the DataPointMoniker.

If you do not delete the duplicate data series, the issue is caught in validation and you can correct it before you deploy the study to the InForm application.

Issue resolved. Previously reported Known Issue.

## CD-11809

**Description:** In previous releases, when you attempted to import a study that included several copied study objects, an error occurred.

**Solution:** The software has been updated so that you can now successfully import a study that contains several copied study objects; the study objects are imported in small chunks.

Issue resolved. This change affects users who import study data.

## CD-12173

**Description:** In previous releases, you could not import an archived study if the following was true:

- The archive file was set to read-only.
- The archive file was not set to read-only, but the application into which you were importing the file used:
  - A 64-bit operating system.
  - An Oracle 11.2.0.2 database.

**Solution:** The software has been updated so that you can now successfully import archived studies in the circumstances described in the Description.

Issue resolved. This change affects users who import study data.

# InForm—Initial Deployment

## CD-10659

**Description:** In previous releases, dynamic forms and events did not always appear as expected in the InForm application.

For example, for a form with an item that triggered a dynamic event and an item that triggered a form in the dynamic event, if you entered data in the item that triggered the form in the dynamic event before the dynamic event was triggered, both the dynamic event and the form appeared in the InForm application.

A form or event is made dynamic when you apply a global condition to it in the Central Designer application.

**Solution:** The software has been updated so that dynamic study objects now appear as expected in the InForm application. In the example in the Description, the dynamic event and its form do not appear until you enter data in the item that triggers the dynamic event.

Issue resolved. This change affects studies that include dynamic forms.

## CD-12139

**Description:** In previous releases, if you used the term NOTDONE as a RefName for a study object, and deployed the study that contained the study object to the InForm application, the clinical model for the InForm Reporting and Analysis module was not created, and you could not create ad hoc reports with clinical data.

**Solution:** The software has been updated so that a study no longer passes validation if it contains a study object with a RefName of NOTDONE.

Issue resolved. This change affects studies that include NOTDONE as a RefName for a study object.

# Installation

## CD-11291

**Description:** In previous releases, when a study contained a circular workflow, an error occurred when you tried to upgrade to Central Designer release 1.4 SP0b or later.

A circular workflow occurs when the last study object in a workflow points back to the first study object, creating a circle. The application prevents you from creating a circular workflow in the Workflow Diagram tab; these workflows are usually in studies that have become corrupt for other reasons.

**Solution:** The software has been updated so that the upgrade process removes the arrows that point into and out of the study object that created the circular workflow.

Issue resolved. This change affects studies that contain circular workflows.

## CD-11962

**Description:** In previous releases, when you installed the Central Designer and Central Designer Administrator client applications in an environment that used a Windows 7 operating system, you had to run the installations as an administrator.

**Solution:** The software has been updated so that any user can now install the Central Designer and Central Designer Administrator client applications in an environment that uses a Windows 7 operating system.

Issue resolved. Previously reported Known Issue.



# Layout

## CD-11177

**Description:** In previous releases, codelist item label overrides were removed in a layout when you added or removed an item on a form. The issue occurred when you performed the following steps:

- 1 On a form, created an item (ItemA) with a codelist.
- 2 Provided a value for a label override for at least one of the codelist items.
- 3 On the same form, created another item, or removed an item.

**Solution:** The software has been updated so that codelist item label overrides are no longer removed when you add or remove an item on a form.

Issue resolved. Previously reported Known Issue.

## Data mappings, Data Sets, and Data Series

### CD-11407

**Description:** In previous releases, if you reused the RefName of a data set that was deleted using the Data Set Editor, or a data series that was deleted using the Logical Schema Editor (now called the Data Mappings Editor), an error occurred.

**Solution:** The software has been updated so that you can now reuse the RefName of a data set that was deleted using the Data Set Editor, or a data series that was deleted using the Logical Schema Editor (now called the Data Mappings Editor).

Issue resolved. Previously reported Known Issue.

### CD-11868

**Description:** In previous releases, you were prompted to publish child study objects of data mappings; however, because the child study objects in a data mapping (data sets and data series) cannot be reused, they should not have been published.

**Solution:** The software has been updated so that you are no longer prompted to publish child study objects of data mappings.

Issue resolved. This change affects studies that contain data mappings that are reused.

### CD-12204

**Description:** In previous releases, when you copied a mapping or a study object referenced in a data mapping (formerly logical schema) by selecting Copy with children or Copy without children, and then modified or deleted the original, the part of the mapping in the copy that also appeared in the original was also modified or deleted. Similarly, if you modified or deleted the copy, the original was also modified or deleted.

**Solution:** The software has been updated so that when you copy a mapping or a study object referenced in a data mapping, the original and its copy no longer share a data point in the database. As a result, when you modify or delete the original mapping or study object referenced in the data mapping, the copy is unaffected. Similarly, if you modify or delete the copy, the original is also unaffected.

Issue resolved. This change affects studies that contain copied study objects that are referenced in a data mapping.

## CD-12217

**Description:** In previous releases, when you copied a study object using the Copy with children option, if the study object was mapped to a data series in a rules data mapping, the mapping for the data series became an array.

**Solution:** The software has been updated so that data points are no longer shared between study objects and their copies. As a result, when you copy a study object and its child study objects, if the study object is mapped to a data series in a rules data mapping, the mapping does not become an array.

Issue resolved. This change affects studies that contain copied study objects that are referenced in a data mapping.

# Reports

## CD-11559

**Description:** In previous releases, when you dragged a study object from a library and dropped it in a study, and then copied and pasted the study object in the same study, the study name appeared two times in the Studies Containing Selected Library Object report.

**Solution:** The software has been updated so that the Studies Containing Selected Library Object report does not list the same study more than one time.

Issue resolved. This change affects users who run reports.

## Rules—Data-entry, Workflow, and Global Conditions

### CD-6651

**Description:** When you edit a data-entry rule in which the description and expression include line breaks, the line breaks appear correctly.

**Solution:** The software has been updated so that you can now insert line breaks in both the description and expression of a data-entry rule. When you edit the rule, the line breaks appear correctly.

Issue resolved. This change affects studies that contain data-entry rules with line breaks in their descriptions.

### CD-9205

**Description:** In previous releases, when you attempted to add symbols to a rule expression, an error occurred.

**Solution:** The software has been updated so that an error no longer occurs when you add symbols to a rule expression.

Issue resolved. This change affects studies that contain rules with symbols in their expressions.

### CD-10178

**Description:** In previous releases, an invalid rule that did not include a rule action (such as send an email or set a value) passed the syntax check when it should have failed.

**Solution:** The software has been updated so that an invalid rule without a rule action now fails the syntax check.

Issue resolved. This change affects studies with invalid rules.

### CD-10527

**Description:** In previous releases, when you modified the action for an existing workflow rule, for example by changing the selection in the **If the value is** section from True to False, the change was not saved after you closed the Define Rule Action dialog box.

**Solution:** The software has been updated so that when you modify the action for an existing workflow rule, the change is saved.

Issue resolved. Previously reported Known Issue.

## CD-10597

**Description:** In previous releases, the `RelatedData[]` rule model property, which is available for repeating, associated forms, returned associated forms in different orders for different releases of the InForm application. The forms may have been ordered by form index or may not have been in any particular order.

**Solution:** The software has been updated so that the `RelatedData[]` rule model property now returns instances that are sorted by form index for all supported releases of the InForm application.

Issue resolved. Previously reported Known Issue.

## CD-10690

**Description:** In previous releases, you could not use the Ctrl+V keyboard shortcut to paste text into the Filter Row on the Rules tab.

To display the Filter Row, right-click a column header, and select Filter Row.

**Solution:** The software has been updated so that when you copy text and then use Ctrl+V to paste it into the Filter Row on the Rules tab, the paste is successful.

Issue resolved. This change affects users who work with rules.

## CD-10731

**Description:** In previous releases, when you typed a parameter name in the Email Action dialog box and then expanded a tree in a References tab (Data, Functions, Constants, or Globals), an error occurred.

The issue occurred when you:

- 1 Created a data-entry rule with an email action, and clicked email in the Rule Summary area to open the Email Action dialog box.
- 2 Typed a value in the Name field in the Message and Subject Parameters section.
- 3 Expanded a tree on the Data, Functions, Constants, or Globals tab in the References section.

**Solution:** The software has been updated so that an error no longer occurs when you type a parameter name in the Email Action dialog box and then expand a tree in one of the tabs in the References section.

Issue resolved. This change affects users who work with rules.

## CD-10742

**Description:** In previous releases, the correct index was not returned in the InForm application when you used any of the following rule model properties to retrieve data from an Objects array for an item that was on a repeating form in a repeating study event:

- CurrentAllObjectsIndex
- CurrentAllValuesIndex
- CurrentObjectsIndex
- CurrentValuesIndex

**Solution:** The software has been updated so that the correct index is now returned in the InForm application when you use any of the rule model properties listed in the Description to retrieve data from an Objects array for an item that is on a repeating form in a repeating study event.

Issue resolved. This change affects users who work with indexes in rules.

## CD-10901

**Description:** In previous releases, the AllObjects rule model property, which is available for items, returned an empty array. This occurred when:

- The form containing the item referenced by AllObjects was common and used in multiple study events, for example V1 and V2.
- The data-entry rule was written on V1.
- V1 did not contain any data in the InForm application.
- The form was submitted as part of V2.

If you used the AllObjects property as part of a data-entry rule that set the sequence number of a form, the sequence number was always set to zero. The number should have incremented by one each time the form was submitted.

**Solution:** The software has been updated so that the AllObjects rule model property now correctly returns an array of values.

Issue resolved. Previously reported Known Issue.

## CD-11103

**Description:** In previous releases, when a workflow rule had a RefName of UpdateWorkflow, the rule entered into a continuous loop, causing the InForm application to stop responding.

**Solution:** The software has been updated so that when a workflow rule has a RefName of UpdateWorkflow, the rule now runs correctly and as expected.

Issue resolved. This change affects users who work with workflow rules.

## CD-11958

**Description:** In previous releases, when you attempted to edit a data-entry rule for which you did not complete the fields on the Actions tab of the Rule Wizard, an error occurred and none of the rules appeared on the Rules tab for the study object on which you created the data-entry rule.

**Solution:** The software has been updated so that when you attempt to edit a data-entry rule for which you did not complete the fields on the Actions tab of the Rule Wizard, an error no longer occurs and the rules for the study object on which you created the data-entry rule appear as expected on the Rules tab. However, if you do not return to the Actions tab and specify an action, a validation error occurs for the study.

Issue resolved. Previously reported Known Issue.



## Rules—Functions and Constants

### CD-11441

**Description:** In previous releases, when you edited within a cell on the Constants tab, which is available for a study and library, and pressed Delete, the constant that you were editing was deleted.

**Solution:** The software has been updated so that when you edit within a cell on the Constants tab and press Delete, the selected character in the cell is deleted, and the constant is no longer deleted. To delete a constant using the Delete key, you must select the row for the constant.

Issue resolved. This change affects users who work with constants.

### CD-11802

**Description:** When you delete a function, a confirmation dialog box now appears.

**Solution:** Issue resolved. This change affects users who work with constants.

### CD-11803

**Description:** In previous releases, after you deleted a function, and then clicked Undo, the function was restored in the Functions tab for the study. However, after you saved the project, the function was deleted.

**Solution:** The software has been updated so that after you delete a function, and then click Undo, the function is correctly restored. After you save the project, the function is no longer deleted.

Issue resolved. Previously reported Known Issue.

## Rules—Test Cases

### CD-10243

**Description:** In previous releases, in the Rule Test Cases dialog box, when the expression of a rule was very long, the scroll bar in the Execution Results was viewable but did not allow you to scroll.

**Solution:** The software has been updated so that the scroll bar in the Execution Results in the Rule Test Cases dialog box now appears and allows you to scroll for very long rule expressions.

Issue resolved. Previously reported Known Issue. This change affects users who work with the Rule Test Cases dialog box.

### CD-10561

**Description:** In previous releases, when a common form was repeating and was referenced in a rule, the Define Test Values for Repeating Instances dialog box did not indicate that the form was common. Instead, the dialog box included a specific study event as the parent of the form.

The appearance of the specific study event was misleading because you needed to provide only one test value for a common form, and the value was not specific to the individual study event.

The Define Test Values for Repeating Instances dialog box appears when you click the button at the end of a field of a repeating value in the Rule Test Cases dialog box.

**Solution:** The software has been updated so that the Define Test Values for Repeating Instances dialog box now prepends common forms with <common>, for example:

<common>.AdverseEvents [0]

Issue resolved. Previously reported Known Issue.

### CD-10847

**Description:** In previous releases, when the syntax of any enabled rule was incorrect, rule tests for all rules in the study failed in the Rule Test Cases dialog box, even when the test and the rule being tested were both written correctly. Therefore, all rules were required to have correct syntax, or all test cases failed.

**Solution:** The software has been updated so that rule tests run correctly in the Rule Test Cases dialog box, even when the study contains an enabled rule with incorrect syntax.

Issue resolved. This change affects users who work with rules.

## CD-11393

**Description:** In previous releases, when a study contained one or more invalid rules, such as a rule with incorrect syntax, when you attempted to run any rule tests in the Rule Test Cases dialog box, an error occurred, and the invalid rules appeared in a list.

**Solution:** The software has been updated so that when a study contains one or more invalid rules, an error no longer occurs when you run rule tests in the Rule Test Cases dialog box.

Issue resolved. Previously reported Known Issue.

## CD-11810

**Description:** In previous releases, when the Rule Test Cases dialog box executed a rule test on multiple instances of a repeating form with an item in a section and the same item outside of a section, the rule test may have failed because the item path was not reset when the rule test was processed.

**Solution:** The software has been updated so that the Rule Test Cases dialog box now takes into account item paths that include repeating forms or sections.

Issue resolved. Previously reported Known Issue.

## Searches

### CD-8662

**Description:** In previous releases, deleted projects appeared in the Categories list in the Libraries Browser.

**Solution:** The software has been updated so that deleted projects no longer appear in the Categories list in the Libraries Browser.

During the upgrade to the Central Designer 2.0 release, the categories for deleted projects are removed from the database.

After you upgrade, the Categories list is updated automatically when you delete a project.

Issue resolved. This change affects users who work with categories in the Libraries Browser.

### CD-10203

**Description:** In previous releases, a copy of a study object that was copied to a study or library using the Libraries Browser sometimes was not updated as expected. The issue occurred when you performed the following steps:

- 1 In a study, created a study object with children, such as a form with two items.
- 2 Copied the form, and added both forms to a study event.
- 3 Searched for the study event using the Libraries Browser, and copied the study event into the library or onto a study.
- 4 In the original study, added or removed items from each form.
- 5 In the library, searched for the study event and added it again to the library.

Both forms should have been updated in the library.

Instead, only the first form that you created was updated. The form that you created as a copy was not updated.

**Solution:** The software has been updated so that when you perform the steps described in the Description, both forms are now updated as expected.

Issue resolved. Previously reported Known Issue.

### CD-10326

**Description:** In previous releases, the Central Designer application stopped responding when a search in the Libraries Browser attempted to return 50,000 or more results and the computer had only a single central processing unit (CPU).

**Solution:** The software has been updated so that the performance of searches in the Libraries Browser has been improved. In addition, the application no longer stops responding when a search in the Libraries Browser returns 50,000 or more results on a computer with a single CPU.

Issue resolved. This change affects users who perform searches in the Libraries Browser.

## Study Objects—Codelists and Codelist Items

### CD-12523

**Description:** In previous releases, you could add a codelist item to a codelist that had a different data type. However, in the Central Designer 2.0 release, to use the codelist item in a rule, the codelist item must have the same type as its parent codelist.

**Solution:** The software has been updated so that when you upgrade to the Central Designer 2.0 release, if the data type of a codelist item does not match the data type of its parent codelist, the data type of the codelist item is changed to match the data type of the parent codelist.

Issue resolved. This change affects studies that contain codelist items that are not assigned the same data type as their parent codelists.

**Note:** Changes in data type could have an impact on existing study reporting database extracts when new Central Designer 2.0 deployments are executed. To assess the impact of data type changes on existing studies that are upgraded to Central Designer release 2.0, you can run the `DetectInvalidCodelistItems.sql` script before starting the upgrade. This script is available in the Install Support folder of the software ISO image. The `DetectInvalidCodelistItems.sql` script finds codelist items that have a type that is incompatible with the type of their parent codelist and lists the results in a CSV file. For more information, see the `DetectInvalidCodelistItems.readme` file, also located in the Install Support folder of the software ISO image.

## Study Objects—Forms and Sections

### CD-10417

**Description:** In previous releases, after you undid the creation of a new form, an error sometimes occurred. The issue occurred when you performed the following steps:

- 1 Created a form and did not save the study.
- 2 Selected the Design tab for the form.
- 3 Selected a value from the Type drop-down list but did not press Enter.
- 4 Clicked Undo.

**Solution:** The software has been updated so that an error no longer occurs after you create a form, select an item type in the Design tab, and undo.

Issue resolved. This change affects users who work with forms.

### CD-10838

**Description:** In previous releases, when you tried to delete the key item on a repeating form, an error occurred.

**Solution:** The software has been updated so that an error no longer occurs when you delete the key item on a repeating form.

Issue resolved. This change affects users who work with repeating forms.

### CD-13173

**Description:** In previous releases, when you incrementally deployed a study to the InForm application, if the new study version included an additional item in a repeating section (Add Entry itemset in the InForm application), an Alternate form was created for the new item.

**Solution:** The software has been updated so that an Alternate form is no longer created when you add an item to a repeating section and incrementally deploy the study to the InForm application.

Issue resolved. This change affects studies that contain Alternate forms.

## Study Objects—General

### CD-10610

**Description:** In previous releases, when the database server was an Oracle 10.2.0.4 database and you tried to save after deleting a large number of study objects, an error occurred, and you could not save.

The issue did not occur if the database server had been upgraded to Patch 20.

**Solution:** The software has been updated so that an error no longer occurs when you save a project after deleting a large number of study objects when the database server was an Oracle 10.2.0.4 database.

Issue resolved. This change affects environments that use an Oracle 10.2.0.4 database.

### CD-10840

**Description:** In previous releases, when you tried to revert to a prior revision of a study object, an error sometimes occurred. The error occurred when you:

- 1 Added a study event (event1) to a study design and saved, creating the first revision.
- 2 Added a second study event (event2) to the study design.
- 3 In the Workflow Diagram tab, connected the study events so that event2 occurred before event1.
- 4 Saved the study, to create a second revision.
- 5 Reverted to the first revision.

The error indicated that locks could not be acquired.

**Solution:** The software has been updated so that an error no longer occurs when you revert to a prior revision of a study object. In the scenario from the Description, the arrow is now removed from the workflow, and event2 is removed from the study.

Issue resolved. This change affects studies that contain study objects that have been reverted to a prior version.

## Study Objects—Items

### CD-9953

**Description:** In previous releases, when you entered more than 1,000 characters in the Question field in the Languages grid of the Design tab for an item, any characters after the first 1,000 were truncated, and an error message did not appear.

**Solution:** The software has been updated so that an error message now appears when you enter more than 1,000 characters in the Question field in the Languages grid.

Issue resolved. Previously reported Known Issue.

### CD-12290

**Description:** In previous releases, when you selected Use the item variable's length as the width in the Textbox size field on the Text item page of the Study Level Styles page, and attempted to modify the default value for the field, the change was reverted when you navigated away from the page.

**Solution:** The software has been updated so that you can now successfully modify the value in the Use the item variable's length as the width field.

Issue resolved. This change affects studies that use study-level styles.



## Study Objects—Projects, Studies, and Libraries

### CD-11314

**Description:** In previous releases, if you deleted a study when the job scheduler was stopped or when the project associated with the study was locked, the study was deleted from the user interface but remained in the database.

**Solution:** The software has been updated so that if a study is not deleted properly, an hourly scheduled delete job removes the study from the database.

Issue resolved. This change affects deleted studies.

### CD-11488

**Description:** In previous releases, when you did the following, an error occurred and indicated that changes could not be saved in a library:

- 1 Copied a study object from a library to a study.
- 2 Modified the study object in the study.
- 3 Copied the study object to the library.

**Solution:** The software has been updated so that this issue no longer occurs.

Issue resolved. This change affects users who work with library objects.

### CD-11530

**Description:** In previous releases, the import of an archived study project failed when it contained a study description with a single quote (').

**Solution:** The software has been updated so that you can now successfully import an archived study project when the study description contains a single quote.

Issue resolved. This change affects users who import studies.

## Study workflow

### CD-12825

**Description:** In previous releases, when you used a template to create a study, in the Central Designer application, the order of the study objects in the workflow was not consistent with their order in the template. For example, in the Workflow Diagram tab for an event, the icons for forms in the event may have been disorganized on the screen.

**Solution:** The software has been updated so that when you use a template to create a study, the study workflow appears in the layout in the same order in which it appears in the template.

Issue resolved. This change affects studies that use templates.

## Validation and deployment

### CD-6619

**Description:** In previous releases, validation and the syntax check were successful but deployment to the InForm application failed when a rule referenced more than one current instance of a repeating study object.

**Solution:** The software has been updated so that a validation error now occurs if a rule references more than one current instance of a repeating study object.

Issue resolved. Previously reported Known Issue.

### CD-10652

**Description:** In previous releases, when you added a repeating section to a Screening or Enrollment form, the study passed validation, but after you deployed the study to the InForm application, an error occurred and you could not enter data in the repeating section.

**Solution:** The software has been updated so that a validation error now occurs if you add a repeating section to a Screening or Enrollment form.

Issue resolved. This change affects users who design Screening and Enrollment forms.

### CD-11771

**Description:** In previous releases, when a study contained the following, the study passed validation, but deployment failed:

- An item with a pulldown or radio control.
- A copy of the item with a different control type, either pulldown or radio control, which existed on a different form and was dependent on another study object.

**Solution:** The software has been updated so that when a study contains the study objects specified in the Description, the validation now reports an error.

Issue resolved. Previously reported Known Issue.

### CD-11873

**Description:** In previous releases, if you designed a Study Completion form, and did not add a Completion Status item to the form, validation and deployment succeeded, but an error occurred in the InForm application when an InForm user attempted to enter data on the Study Completion form.

**Solution:** The software has been updated so that if a study contains a Study Completion form without a Completion Status item, an error now occurs during validation.

Issue resolved. This change affects users who design Study Completion forms.

## CD-11963

**Description:** If a study contains a repeating visit, and the first form of the visit contains a global condition and a Date of Visit (DOV) item that is not the first item on the form, an error no longer occurs when you validate the study.

**Solution:** Issue resolved. This change affects users who design Date of Visit forms.

## CHAPTER 4

# Upgrade information

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## Upgrade information

For information about upgrading, see the Central Designer *Installation Guide*.