

IBM Cognos Analytics  
Version 12.0.x

*Troubleshooting Guide*



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## Product Information

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# Chapter 1. Installation and configuration problems

You may encounter problems during installation and configuration, or when setting up IBM® Cognos® Analytics to run within an application server.

## Problems starting Cognos Analytics

You can encounter problems when starting IBM Cognos Analytics.

You may encounter problems when you try to perform the following tasks:

- Start the IBM Cognos Analytics service.
- Open the Welcome page for the IBM Cognos Analytics portal for the first time.
- Start an application server, such as WebSphere®.

The following table shows some common symptoms and their solutions.

Table 1. Symptoms and suggested solutions for starting IBM Cognos Analytics	
Symptoms	Solution
You do not see the splash screen for the IBM Cognos Analytics portal when you start IBM Cognos Analytics.	Check your Web server configuration.
The service starts, but no tables are created in the content store database.	Check your content store configuration.
The service does not start.	Ensure that you wait a few moments before submitting a request.
The application server does not start.	Check the file permissions and directory names of the application server installation location.

To review an up-to-date list of environments that are supported by IBM Cognos Analytics products, including information on operating systems, patches, browsers, web servers, directory servers, database servers, and application servers, see [IBM Cognos Analytics on Premises 12.0.x Supported Software Environments](https://www.ibm.com/support/pages/node/6966712) (<https://www.ibm.com/support/pages/node/6966712>).

## AAA-AUT-0013 The user is already authenticated in all available namespaces

The error message appears because of some incorrect settings in the configuration of IBM Cognos Analytics.

When you try to log in to Cognos Analytics, your attempt fails and you receive the following error message on the login web page:

AAA-AUT-0013 The user is already authenticated in all available namespaces.

The incorrect settings are most commonly in the following categories of IBM Cognos Configuration:

- **Environment**
- **Security**
- **IBM Cognos Application Firewall**

## Resolving the problem

Perform the following steps to specify correct configuration settings:

1. Start [IBM Cognos Configuration](#).
2. Stop the Cognos Analytics service.
3. Check that the following settings are correctly specified for each Cognos Analytics installation in your environment:

### URI settings

Under **Environment**, ensure that you specified fully qualified domain name (FQDN) for the **Gateway URI**, **Dispatcher URI**, and **Content Manager URIs**. For more information, see [Changing a port or URI setting](#).

### Namespace settings

- Under **Security** > **Authentication** verify the configuration of all namespaces. For more information, see [Configuring authentication providers](#).
- For Lightweight Directory Access Protocol (LDAP) namespaces ensure that valid certificates were imported to the correct keystore. For more information, see [Enable secure communication to the LDAP server](#).
- Verify that the **Selectable for authentication** property of namespace is set to the value **True**
- Test all namespaces until all tests are completed with success. To run the test, in the **Explorer** window, under **Authentication**, right-click a namespace and click **Test**.

### IBM Cognos Application Firewall (CAF) settings

Under **Security** > **Authentication** > **IBM Cognos Application Firewall** for **Enable CAF validation?** set the value to **True**. For more information, see [Configuring IBM Cognos components to use IBM Cognos Application Firewall](#).

4. Save changes in IBM Cognos Configuration.
5. Restart Cognos Analytics.

## CFG-ERR-0106 error when starting the IBM Cognos service in IBM Cognos Configuration

When you start the IBM Cognos Analytics service, you may receive the following error message:

*CFG-ERR-0106 IBM Cognos Configuration received no response from the IBM Cognos service in the allotted time. Check that IBM Cognos service is available and properly configured.*

There are two possible causes for this problem:

- The IBM Cognos service needs more time to start.
- A standby Content Manager computer may be configured incorrectly.

### The IBM Cognos service needs more time

By default, IBM Cognos Configuration checks the progress of the start request every half second for three minutes. If IBM Cognos Configuration does not receive a response within this time, the error message displays.

The amount of time that IBM Cognos Configuration waits to receive a response from the IBM Cognos service is controlled by the `ServiceWaitInterval` and `ServiceMaxTries` properties.

The `ServiceWaitInterval` property represents the time interval, in milliseconds, at which IBM Cognos Configuration checks the progress of the start request. By default, its value is 500, which is equivalent to half a second.

The ServiceMaxTries property represents the number of times that IBM Cognos Configuration checks the progress of the start request. By default, its value is 360.

## Content Manager Is configured incorrectly

If the error message displays on a standby Content Manager computer, the setting for storing the symmetric keys may be incorrect.

## Changing the wait time for the IBM Cognos service

If you received the CFG-ERR-0106 error because the IBM Cognos service needs more time to start, change the amount of time that IBM Cognos Configuration waits to receive a response from the IBM Cognos service.

By default, IBM Cognos Configuration checks the progress of the start request every half second for three minutes. If IBM Cognos Configuration does not receive a response within this time, the error message is displayed.

The amount of time that IBM Cognos Configuration waits to receive a response from the IBM Cognos service is controlled by the ServiceWaitInterval and ServiceMaxTries properties.

The ServiceWaitInterval property represents the time interval, in milliseconds, at which IBM Cognos Configuration checks the progress of the start request. By default, its value is 500, which is equivalent to half a second.

The ServiceMaxTries property represents the number of times that IBM Cognos Configuration checks the progress of the start request. By default, its value is 360.

## Procedure

1. Using IBM Cognos Configuration, stop the IBM Cognos service.
2. Open the *install\_location/configuration/cogconfig.prefs* file in an editor.

This file is created automatically the first time you open IBM Cognos Configuration.

3. Add the following code to the file:

```
ServiceWaitInterval=number of milliseconds
```

```
ServiceMaxTries=number of times
```

**Tip:** Add the numeric values that correspond to your configuration needs.

4. Save the file.
5. Using IBM Cognos Configuration, start the IBM Cognos service.

## Changing the location where symmetric keys are stored

If you received the CFG-ERR-0106 error on a standby Content Manager computer, configure the computer to store the symmetric keys locally.

The setting for storing the symmetric keys may be incorrect.

## Procedure

1. On the standby Content Manager computer, start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security**, click **Cryptography**.
3. In the **Properties** window, under **CSK settings**, set **Store symmetric key locally** to **True**.
4. From the **File** menu, click **Save**.
5. From the **Actions** menu, click **Start**.

This action starts all installed services that are not running. If you want to start a particular service, select the service node in the **Explorer** window and then click **Start** from the **Actions** menu.

## Unable to start the IBM Cognos service because the port is used by another process

You may not be able to start the IBM Cognos Analytics service or process if one of the default ports is used by another process.

**Tip:** To view the current network TCP/IP network connections, use the netstat command.

Use IBM Cognos Configuration to change the default port that IBM Cognos Analytics uses.

When you change the port used by the local dispatcher, you must change the value of the Dispatcher URI properties. Because the change affects all the URIs that are based on the local dispatcher, you must change the URIs of all local components. By default, local components contain localhost in the URI.

For example, if you install all components on one computer and you want to change the dispatcher port, replace 9300 in all dispatcher and Content Manager URIs with the new port number.

### Procedure

1. Start IBM Cognos Configuration.
2. In the **Explorer** window, click the appropriate group or component:
  - To access the port number in the dispatcher and Content Manager URIs, click **Environment**.
  - To access the port number for the local log server, under **Environment**, click **Logging**.
  - To access the shutdown port number, under **Environment**, click **IBM Cognos services** > **IBM Cognos Analytics**.
  - To access the port number for the location of the applications.xml file used by Portal Services, under **Environment**, click **Portal Services**.
3. In the **Properties** window, click the **Value** box next to the property that you want to change.
4. Change the value from 9300 to the new value.

Ensure that you change the ports in all URIs that contain localhost:9300.
5. From the **File** menu, click **Save**.
6. From the **Action** menu, click **Start**.

## IBM Cognos Analytics server fails to start and gives no error message

An IBM Cognos Analytics server may fail to start after an upgrade or new installation, but no error message displays. This may occur when a previously running or new IBM Cognos Analytics server is configured to use a large amount of memory.

If the server on which IBM Cognos Analytics is installed contains version 1.0 of Microsoft security update 921883, there may be an issue when a lot of contiguous memory is requested by an application.

This is a known issue with version 1.0 of Microsoft security patch 921883. Microsoft distributed a second version of the patch to fix the problem. As a workaround, uninstall the first security patch, or install version 2.0 of the patch. Alternatively, you can configure the IBM Cognos Analytics server to use less memory.

For more information, see the Microsoft knowledge base article about programs using a lot of contiguous memory failing, at the Microsoft support Web site.

## Server not available when starting Cognos Analytics

After you configure IBM Cognos components and start the IBM Cognos services, when you connect to the IBM Cognos Analytics portal, the following error message may display:

*The Cognos Gateway is unable to connect to the Cognos Analytics server.*

*The server may be unavailable, or the gateway may not be correctly configured.*

Check the IBM Cognos server log file for more information. By default, the `cogaudit.log` file is located in the `install_location\logs` directory. If you configured another destination for log messages, check the appropriate file or database.

Content Manager may not be able to connect to the content store if the content store is not configured properly. This may occur if

- the content store uses an unsupported character encoding
- the content store uses a database collation sequence that is case sensitive
- the configuration settings you specified in IBM Cognos Configuration are not valid

### Unsupported character encoding

If the following messages display in the log file, the database you created for the content store does not use a supported character encoding:

- For Oracle:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-SYS-5121 Content Manager cannot start because the database character set for the content store is not supported.*

*CM-SYS-5126 The content store database server uses the character set US7ASCII.*

*CM-SYS-5125 The content store database client uses the character set US7ASCII.*

- For DB2® UDB:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-SYS-5121 Content Manager cannot start because the database character set for the content store is not supported.*

*CM-SYS-5124 The content store database server uses the code page 1252.*

- For Sybase:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-SYS-5121 Content Manager cannot start because the database character set for the content store is not supported.*

For Content Manager to connect to the content store, the content store must use the appropriate character encoding, as listed in the following table.

Table 2. Character encoding used by the content store to connect to a specific database type	
Database	Character encoding
Db2 UDB	Codeset UTF-8
Sybase ASE	UTF-8
Microsoft SQL Server	UTF8 UTF16

To resolve this problem, you must recreate the content store database using the correct character encoding, or convert the character encoding. For more information, see the database documentation.

## Case-sensitive collation sequence

If the following messages are in the log file, the database you created for the content store uses a database collation sequence that is case sensitive:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-SYS-5122 The content store database has a default collation that is case-sensitive. Content Manager requires a content store that has a case-insensitive collation.*

*CM-SYS-5123 The content store database server uses the collation <parameter>.*

*CM-SYS-5007 Content Manager build @cm\_build\_version@ failed to start! Review the Content Manager log files and then contact your system administrator or customer support.*

To resolve this problem, you must recreate the content store database using a database collation sequence that is not case sensitive. For more information, see the database documentation.

## Invalid configuration settings

If the following or similar messages are in the log file, you did not configure the content store correctly in IBM Cognos Configuration.

- For Microsoft SQL Server:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-CFG-5036 Content Manager failed to connect to the content store. The connection string is "jdbc:SQLConnect://localhost:1433/cm".*

*Failed Logon:com.jnetdirect.jsql.x: Cannot open database requested in login 'cm'. Login fails. url:jdbc:SQLConnect://localhost:1433/cm.*

- For Db2:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-SYS-5003 Content Manager is unable to access the content store. Verify your database connection parameters and then contact your database administrator.*

*[IBM][CLI Driver] SQL1013N The database alias name or database name "CM123" could not be found.*

- For Oracle:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-CFG-5036 Content Manager failed to connect to the content store. The connection string is "jdbc:oracle:thin:@localhost:1521:pb1".*

*ORA-01017: invalid username/password; logon denied.*

- For Sybase:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-CFG-5036 Content Manager failed to connect to the content store. The connection string is "jdbc:sybase:Tds:localhost:5000/cm".*

*JZ006: Caught IOException: java.net.ConnectException: Connection refused: connect.*

If you are using an Oracle database, do not use illegal characters, such as an underscore in IBM Cognos Configuration for the Service Name property. If the Service Name includes illegal characters, tables are not created in the content store database when the IBM Cognos service is started.

## Configuring a Microsoft SQL Server, Oracle, Db2, Informix, or Sybase content store in IBM Cognos Configuration

If you received a CM-CFG-5036 or CM-CFG-5063 error code, the content store might not be configured correctly. To resolve the issue, reconfigure the content store.

### Procedure

1. In the **Explorer** window, go to **Data Access > Content Manager**. Right-click **Content Store**, and click **Delete**.

The default content store is deleted. Content Manager must be configured to access only one content store.

2. Right-click **Content Manager**, and then click **New resource > Database**.
3. In the **Name** box, type a name for the database.
4. In the **Type** box, select the type of database, and click **OK**.

**Tip:** If you want to use Oracle Net8 keyword-value pair to manage the database connection, select **Oracle database (Advanced)**.

5. In the **Properties** window, provide values depending on your database type:

- If you use a Microsoft SQL Server database, type the appropriate values for the **Database server with port number or instance name** and **Database name** properties.

For the **Database server with port number or instance name** property, include the port number if you use nondefault ports. Include the instance name if there are multiple instances of Microsoft SQL Server.

To connect to a named instance, you must specify the instance name as a Java™ Database Connectivity (JDBC) URL property or a data source property. For example, you can type `localhost\instance1`. If no instance name property is specified, a connection to the default instance is created.

The properties specified for the named instance, along with the user ID and password, and database name, are used to create a JDBC URL. Here is an example:

```
jdbc:JSQLConnect://localhost\\instance1/user=sa/more properties as required
```

- If you use a Db2 database, for the **Database name** property, type the database alias.
- If you use an Oracle database, type the appropriate values for the **Database server and port number** and **Service name** properties.
- If you use an advanced Oracle database, for the **Database specifier** property, type the Oracle Net8 keyword-value pair for the connection.

Here is an example:

```
(description=(address=(host=myhost)(protocol=tcp)(port=1521) (connect_data=(sid=(orcl)))))
```

- If you use a Sybase database, type the appropriate values for the **Database server and port number** and **Database name** properties.
6. If you want to change the logon credentials, specify a user ID and password in the following way:
    - Click the **Value** box next to the **User ID and password** property and then click the edit icon when it is displayed.
    - Type the appropriate values and click **OK**.
  7. From the **File** menu, click **Save**.

The logon credentials are immediately encrypted.

## IBM Cognos services fail to restart after a network outage

The IBM Cognos Bootstrap Service restarts IBM Cognos services after a network outage.

For installations where you use the default WebSphere Application Server Liberty Profile and where a network IP address is specified in the internal dispatcher URI, the IBM Cognos services might not initialize successfully during the restart. In this case, manually restart the services after the network is restored.

### Procedure

To resolve the problem, configure the **Internal dispatcher URI** property in IBM Cognos Configuration to use localhost or the network host name.

## No warning that installing a later version will automatically update the earlier version of the content store

You have a version of IBM Cognos Analytics installed. You install IBM Cognos Analytics into a new location. You use the same database for the content store for both versions. After you configure the later version and start the IBM Cognos service, the earlier version of IBM Cognos Analytics no longer works because all content is automatically upgraded.

If you want to use both the earlier version of IBM Cognos Analytics and the upgraded version of IBM Cognos Analytics, do the following tasks before you install the later version:

- back up the database you use for the content store
- restore the backup to a new location

Alternatively, you can choose to use the deployment tool to import the entire content store from an earlier version to the later version. All existing content in the content store database is replaced by the imported content. You receive a warning message about this.

## Db2 returns SQL1224N error when connecting from AIX

If your content store is a Db2 database and you receive an SQL1224N error on AIX®, check the db2diag.log file for additional information about the error.

If the error includes reason code 18, you might need to change the Db2 configuration to accept more connections. For more information, see the IBM Db2 support pages for the error SQL1224N.

## Content Manager error when starting IBM Cognos Analytics

After starting IBM Cognos Analytics, no BIBUSTKSERVMA process is started. There are errors listed in the pogo\*\*\*\*\*.log and cogaudit.log files. Users receive errors in the browser when connecting to the IBM Cognos Analytics portal.

In the pogo\*\*\*\*\*.log file, an error related to Content Manager displays.

In the cogaudit.log file, the following error displays:

*An attempt to register the dispatcher in Content Manager was unsuccessful. Will retry periodically.*

When connecting to `http://computer name/ibmcognos`, the following error messages display in the browser:

- *DPR-ERR-2058 The dispatcher cannot service the request at this time. The dispatcher is still initializing*
- *SoapSocketException: Connection Refused*

IBM Cognos Configuration uses a user ID to bind to the LDAP database. If this user ID is moved to another group, IBM Cognos Configuration can no longer locate it.



## Procedure

To correct the problem, move the user ID back to the original group.

## Content Manager fails to start or takes a long time to start

On Microsoft Windows, you try to start the service on the computer where you installed Content Manager. As the service is starting, the details include errors similar to the following:

DPR-CMI-4006 Unable to determine the active Content Manager. Will retry periodically.

CM-SYS-5007 Content Manager build x.x.x.x failed to start!

Details within the error log may also include references to OutOfMemoryError.

To resolve this problem, start the service using the DuseCMLargeResultSet parameter. You can add the parameter to the bootstrap configuration file and then start the service using IBM Cognos Configuration or you can add the parameter to the startup configuration file and then run the file.

## Resolving an out-of-memory error using the bootstrap configuration file

Start the IBM Cognos service by adding the DuseCMLargeResultSet parameter to the bootstrap configuration file.

## Procedure

1. Go to the *install\_location*\bin64 directory and open bootstrap\_wlp.xml in an XML editor.
2. Find the section that begins with <param>"\${install\_path}{".
3. Uncomment the DuseCMLargeResultSet parameter to that section, in the location shown by the bold text in the following example.

```
<param>"-Dcatalina.base=${install_path}/tomcat"</param>
```

```
<param>"-Dcatalina.home=${install_path}/tomcat"</param>
```

```
<param>"-Djava.io.tmpdir=${temp}"</param>
```

```
<param>-DuseCMLargeResultSet=true</param>
```

4. Save and close the file.
5. Start IBM Cognos Configuration and start the service.

## Resolving an out-of-memory error using the startup configuration file (11.1.4 and earlier)

Start the IBM Cognos service by adding the DuseCMLargeResultSet parameter to the startup configuration file.

**Note:** As of release 11.1.5, the startup.bat file no longer exists.

## Procedure

1. Go to the *install\_location*\bin directory and open startup.bat in a text editor.
2. Find the following line:

```
set CATALINA_OPTS=-Xmx768m -XX:MaxNewSize=384m -XX:NewSize=192m  
-XX:MaxPermSize=128m  
%DEBUG_OPTS%
```

3. Append the `DuseCMLargeResultSet` parameter to the line, as shown by the bold text in the following example:

```
set CATALINA_OPTS=-Xmx768m -XX:MaxNewSize=384m -XX:NewSize=192m  
-XX:MaxPermSize=128m  
%DEBUG_OPTS%-DuseCMLargeResultSet=true
```

4. Save and close the file.
5. Start the service by running the startup.bat file.


## Managing the Configuration Server

The configuration server identifies the server that manages configuration values. This is critical in multi-server installations so that configuration values remain available and consistent on all nodes, even after network partitions. The configuration server runs on the same instance as the active content manager. Applies to 11.0.3 (replaced in 11.0.4 by [Configuration Group](#)).

### About this task

#### Procedure

1. Start Cognos Configuration.
2. In the **Explorer** window, under **Local Configuration**, click **Environment**.
3. In the **Environment - Group Properties** window, scroll down to the category **Other URI Settings**, and click **Configuration Server**.
4. To set the correct value:
  - If this is the active Content Manager server installation, you can set the value to the local server by right-clicking and then clicking **Reset to Default**.
  - If this is the standby Content Manager server install, or an Application tier install, you need to set

the value by clicking on the edit icon  to launch the edit dialog.

- a. In **Value - Configuration Server** dialog, click on the **Retrieve** button to launch **Retrieve Configuration Servers** dialog. Enter the proper information to access the active Content Manager server, and then click **OK**.

**User ID** - The ID with administration privileges on the server.

**Password** - The password for the User ID.

**Namespace ID** - The value can be found in the **Security, Authentication** resource. For example, CognosEx

**Cognos Analytics URL** - The URL used to run Cognos Analytics. For example, `http://myserver:9300/bi`

- b. The **Configuration Server** value is retrieved. Click **OK** to set the value.
- If you cannot retrieve the value using the **Retrieve** button, you can set the value manually.
    - a. On the active Content Manager server, open `install_location/zookeeper/conf/zoo.cfg`
    - b. Find two settings like this:

```
server.1=Myhost.ibm.com:2888:3888  
clientPort=2181
```

- c. Concatenate the two value with a semicolon like this:

```
Myhost.ibm.com:2888:3888;2181
```

- d. Enter that value in the property.

5. Save the configuration.

## DPR-ERR-2014 error in the log file on the Content Manager computer

This error is displayed if Content Manager is installed on a separate computer and the event management service on the Content Manager computer is enabled, or if you have a single-server installation and the event management service is disabled.

The following error message might be displayed in the `cogaudit.log` file:

*DPR-ERR-2014 Unable to load balance the request because no nodes in the cluster are available, or no nodes are configured for the service: eventManagementService*

To correct the problem, turn off the event management service in a distributed installation with Content Manager on a separate computer, or enable the service in a single-server installation.

### Procedure

1. Do one of the following steps:
  - In a distributed installation with Content Manager on a separate computer, start IBM Cognos Configuration on the Content Manager computer.
  - In a single-server installation, start IBM Cognos Configuration.
2. In the **Explorer** pane, go to **Environment > IBM Cognos services**.
3. Do one of the following steps:
  - For a distributed installation, set the **Event management service enabled** property to **False**.
  - For a single-server installation, set the **Event management service enabled** property to **True**.
4. Save your changes.
5. Restart the services.

## Non-ASCII characters in installation directory cause run-time errors

On all operating systems, if you use non-ASCII characters in the installation directory for IBM Cognos Analytics, it causes run-time errors. It also causes some product functions, such as report execution, to fail.

Install IBM Cognos Analytics in the default directory or use a directory name that contains only ASCII Latin-1 characters.

## Cannot Open a Microsoft Cube or PowerCube

You are unable to open a Microsoft Cube or PowerCube, or you can open a Microsoft Cube but only metadata is shown. For an Microsoft Cube, you may receive the following error message:

MO-ERR-0030

Cannot connect to the datasource. Please set the service to run as a domain user with the correct privileges.

To solve this problem, ensure that the user running the IBM Cognos Analytics service has access rights to the cube.

PowerCubes are accessed through mapped drives or UNC path names.

### Assigning access rights to Microsoft cubes

For a user account to open Microsoft cubes, it must be assigned the appropriate privileges in the system administrative tools.

## Procedure

1. Add the domain user account that starts the IBM Cognos service to the **Act as part of the operating system** privilege:
  - Under Administrative Tools, select **Local Security Policy**.
  - Expand **Security Settings, Local Policies** and click **User Rights Assignment**.
  - Right-click the **Act as part of the operating system** policy and select **Properties**.
  - Click **Add User or Group** and add the user account that starts the IBM Cognos service.
2. If you use the domain userID and password method of authentication, add the user account that starts the IBM Cognos service to the domain that includes Content Manager, the Application Tier Components, IIS Web server, and the data source server (Microsoft SQL Server or Microsoft Analysis Server).
3. If you use an external namespace, such as Active Directory Server, for authentication, add the user account that starts the IBM Cognos service to the domain that includes the authentication provider.

This domain must also include Content Manager, the Application Tier Components, IIS Web server, and the data source server (Microsoft SQL Server or Microsoft Analysis Server).

For more information about configuring external namespaces for authentication, see the topics about authentication providers in the *IBM Cognos Analytics Installation and Configuration Guide*.

## Assigning access rights to PowerCubes

For a user account to open PowerCubes, it must be assigned the appropriate privileges in IBM Cognos Administration.

## Procedure

Ensure that the IBM Cognos user profile has sufficient operating system or domain access rights to open the PowerCube file.

## The page is not shown when opening a portal after installing IBM Cognos Analytics

After you install and configure IBM Cognos Analytics, you are unable to connect to the Cognos Analytics portal.

This may be because the Web server is not properly configured. For example, the virtual directories required for IBM Cognos Analytics may not exist or they may point to the wrong physical folders.

For information about configuring the Web server, see the *IBM Cognos Analytics Installation and Configuration Guide*.

## DPR-ERR-2058 Error Displays in web browser when starting IBM Cognos Analytics

After you start the services in IBM Cognos Configuration and then try to open the portal, a message similar to one of the following may display:

```
DPR-ERR-2058 The dispatcher encountered an error while servicing a request.  
XTS handler must be initialized before being invoked.  
DPR-ERR-2058 The dispatcher cannot service the request at this time.  
The dispatcher is still initializing. Please try again or contact your  
administrator.
```

These error messages usually occur when the dispatcher cannot communicate with the Content Manager. To help you determine the specific cause, look in the `cogaudit.log` file in the `install_location\logs` directory. The following are the most common causes with their solutions.

## IBM Cognos Services are Not Done Initializing

After you start the services in IBM Cognos Configuration and the configuration tool shows that the services are running, wait a few minutes for all services to start before you open the portal.

## Content Manager is Not Available

In a distributed installation, ensure that Content Manager is installed, configured, and running. Ensure also that the other IBM Cognos computers are configured with the correct Content Manager URI.

## The Content Store is Not Available or is Not Configured Properly

Ensure that the content store database was created and that you configured it correctly in IBM Cognos Configuration.

## Tables are Not Created in the Content Store

Ensure that you are using a version of Db2, Microsoft SQL Server, Oracle, or Sybase that is supported by IBM Cognos components.

## The Logon Credentials for the Content Store Are Incorrect

Check whether the information changed. For example, Db2 reads information from the NT user management. If the password for the NT account changed, you must also change the logon credentials for the content store in IBM Cognos Configuration.

Check for special characters in the logon password. Occasionally, the JDBC driver does not accept characters that are reserved for xml, such as %, !, <, and >.

## The User Does not Have Appropriate Permissions

Ensure that the user has the appropriate permissions.

## Out of memory on HP-UX

If you are using the application server that is provided with IBM Cognos Analytics, you can determine the issue is related to HP-UX server configuration. You might be exceeding the expected maximum number of simultaneously active threads per process.

### ***Increasing the maximum number of threads per process on HP-UX***

If you are exceeding the expected maximum number of simultaneously active threads per process on HP-UX, increase the number of active threads.

### **Procedure**

Have your system administrator change the Kernel parameter as follows:

- max\_thread\_proc = 512
- nkthread = 1024

### ***Checking for an HP-UX configuration problem***

If increasing the maximum number of active threads per process does not resolve the out-of-memory error on HP-UX, perform the following steps.

### **Procedure**

1. In the /bin/startup.sh file, find  
    ../tomcat/bin/catalina.sh start "\$@"
2. Change it to the following:

```
../tomcat/bin/catalina.sh run "$@"
```

The run command causes the Tomcat output to display in the console window for IBM Cognos Analytics.

3. Stop and restart IBM Cognos Analytics using the `./shutdown.sh` and `./startup.sh` commands.
4. If the following error message displays in the console window for any of the application servers, the issue is an HP-UX configuration problem:

*OutOfMemoryException error: Unable to create new native thread on HP-UX.*

The problem is that the default values for HP-UX 11.0 and 11i are set too low for most Java applications.

**Tip:** You can check the number of threads in your process by using the `-eprof` option available in JDK 1.1.8 and by analyzing the `Java.eprof` file using HPjmeter by selecting the threads metric.

## Content Manager Cannot Connect to the Content Store on Oracle

If you are using an Oracle database as a content store, the DPR-ERR-2058 error may be generated when logging onto the portal. All tables are created on the database.

You may also receive the following error messages:

- *CM-CFG-5036 Content Manager failed to connect to the content store.*
- *ORA-01017: invalid username/password; logon denied*

### Setting the Oracle database server name

The Content Manager might fail to connect to an Oracle database because of inconsistencies between the Oracle server name in IBM Cognos Configuration and the server name in the `tnsnames.ora` file.

### Procedure

1. Start IBM Cognos Configuration.
2. In the **Explorer** window, click **Data Access, Content Manager, Content Store**.
3. Change the Oracle database server name to a fully qualified name such as `host_name.companyname:1534` to match the name in the `tnsnames.ora` file.

## DPR-ERR-2022 error displays in web browser when starting IBM Cognos Analytics

After you start the services in IBM Cognos Configuration and then try to open the portal, a message similar to the following may display:

*DPR-ERR-2022 No response generated. This may be due to an incorrect configuration, a damaged installation, or the dispatcher not having finished initializing.*

This problem can occur if

- You try to open the portal before IBM Cognos services are initialized.
- A `system.xml` file has been edited.

In this case, replace the edited `system.xml` file in the appropriate subdirectory in `install_location\templates\ps` with a copy from backup or use an XML editor to edit it.

There are many instances of `system.xml` in the directories in `install_location\templates\ps`. Ensure that you replace the correct file.

## RSV-SRV-0066 a soap fault has been returned or RQP-DEF-0114 the user cancelled the request errors display in high user load environments

These errors may be in the IBM Cognos cogaudit.log if you have a high user load (over 165 users) and interactive reports are running continuously in a distributed installation.

### Procedure

1. Increase the `async_wait_timeout_ms` parameter in `webapps/p2pd/WEB-INF/services/reportservice.xml` file.

For more information, see the *IBM Cognos Analytics Installation and Configuration Guide*.

2. Increase the Queue Time Limit setting to 360.

For information, see the *IBM Cognos Analytics Administration and Security Guide*.

## Problems configuring Cognos Analytics

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After you install IBM Cognos Analytics components, you may encounter problems when you save changes in IBM Cognos Configuration.

Ensure that you

- configure and start the services on the computer where Content Manager is located before you configure other components
- restart the IBM Cognos service after you make any configuration changes

## Running Database and Index Cleanup Scripts

In some troubleshooting situations, you may be advised to start with new configuration data.

You can run SQL scripts to delete all the tables in any of the following databases that IBM Cognos Analytics components use:

- content store for data that IBM Cognos Analytics needs to operate
- delivery database for report notifications
- database for human tasks and annotations

You can run SQL scripts to delete all the tables and indexes in the logging database for log messages.

When you delete a table, its structural definition and data are deleted permanently from the database.

When you delete the indexes from a logging database, they are deleted permanently from the database.

When you restart the IBM Cognos service, a new set of required database tables and indexes are created automatically in the location specified by your configuration settings.

### Procedure

1. On each computer where Content Manager is located, stop the IBM Cognos service.
2. Go to the appropriate directory:
  - To delete tables and indexes from the logging database, go to `install_location\configuration\schemas\logging`.
  - To delete tables from the content store, go to `install_location\configuration\schemas\content`.
  - To delete tables from the notification database, go to `install_location\configuration\schemas\delivery`.
  - To delete tables from the human task and annotation database, go to `install_location\configuration\schemas\hts`.
3. Go to the appropriate database directory.

4. Depending on the database and database type, run one of the following scripts in the appropriate database tool to delete the tables.

The following table lists the script names for the content store database.

<i>Table 3. Database type and script name for the content store database</i>	
Database type	Script name
Db2	dbClean_db2.sql
Db2 on z/OS®	dbClean_db2zOS.sql
Informix®	dbClean_informix.sql
Microsoft SQL Server	dbClean_mssqlserver.sql
Oracle	dbClean_oracle.sql
Sybase	dbClean_sybase.sql

The following table lists the script names for the notification database.

<i>Table 4. Database types and script names for the notification database</i>	
Database type	Script name
Db2	NC_DROP_DB2.sql
Db2 on z/OS	NC_DROP_DB2.sql
Informix	NC_DROP_IFX.sql
Microsoft SQL Server	NC_DROP_MS.sql
Oracle	NC_DROP_ORA.sql
Sybase	NC_DROP_SYBASE.sql

The following table lists the script names to clean up tables and indexes for the logging database.

For Informix, the index cleanup script must be edited if you host more than one audit logging database on the Informix instance and use them at the same time. See step 5.

<i>Table 5. Script names to cleanup tables and indexes for the logging database.</i>	
Database type	Script name
Db2	LS_dbClean_db2.sql LS_dbCleanIndexes_db2.sql
Db2 on z/OS	LS_dbClean_db2zOS.sql LS_dbCleanIndexes_db2zOS.sql
Informix	LS_dbClean_informix.sql LS_dbCleanIndexes_informix.sql



Table 5. Script names to cleanup tables and indexes for the logging database. (continued)	
Database type	Script name
Microsoft SQL Server	LS_dbClean_mssql.sql
	LS_dbCleanIndexes_mssql.sql
Oracle	LS_dbClean_oracle.sql
	LS_dbCleanIndexes_oracle.sql
Sybase	LS_dbClean_sybase.sql
	LS_dbCleanIndexes_sybase.sql

The following table lists the script names for the Human Task and Annotation database.

Table 6. Script names for the Human Task and Annotation database	
Database type	Script name
all types	humanTaskService-dropScript.sql

5. If you have more than one audit logging database on your Informix instance, do the following:
  - Go to *install\_location*\configuration\schemas\logging\informix and open the file LS\_dbCleanIndexes\_informix.sql in a text editor.
  - Replace every instance of IPFSCRIPTIDX with the value that you specified when you created the IPFSCRIPTIDX property in IBM Cognos Configuration. For more information, see the topic about specifying a log messages repository in the *IBM Cognos Analytics Installation and Configuration Guide*.
  - Save and close the file.
6. Start the IBM Cognos service.

## Error trying to encrypt information when saving your configuration

When you save your configuration using the configuration tool, you may see an error message that the cryptographic information cannot be encrypted. An error occurred when requesting a certificate from the Certificate Authority.

*The cryptographic information cannot be encrypted. Do you want to save the configuration in plain text?*

Before you can encrypt your configuration settings, the computer where Content Manager is installed must be configured and running. On UNIX operating systems, ensure that you copied the appropriate .jar files to the installation location of your Java Runtime Environment. In addition, ensure that your Java environment is configured correctly, the URIs are correct, and the same certificate authority password is configured for all Content Manager computers.

On Linux® operating systems, ensure that you copied the appropriate .jar files to the installation location of your Java Runtime Environment.

Also, an error message similar to the following may display:

*java.lang.NoClassDefFoundError: javax/net/ServerSocketFactory.*

The cryptographic error usually means the Java environment is not configured correctly. Ensure that the JAVA\_HOME environment variable is set correctly and the appropriate security providers are installed, such as JSSE for JRE 1.5.

## Checking the URI properties and certificate authority password

To ensure that configuration settings can be encrypted, ensure that the URI properties and certificate authority password in IBM Cognos Configuration are correct.

### Procedure

1. On the Content Manager computer, start IBM Cognos Configuration.
2. In the **Explorer** window, click **Environment**.
3. In the **Properties** window, verify these properties:
  - Under **Gateway Settings** > **Gateway URI**
  - Under **Dispatcher Settings** > **External dispatcher URI** and **Internal dispatcher URI**
  - Under **Other URI Settings** > **Dispatcher URI for external applications** and **Content Manager URIs**
4. In the **Explorer** window, click **Security** > **Cryptography** > **Cognos**.
5. In the **Properties** window, under **Certificate Authority settings**, click the value for **Password**.

Ensure that the same password is used on all Content Manager computers.
6. Save the configuration and restart IBM Cognos Analytics.

## Problems generating cryptographic keys in IBM Cognos Configuration

When you uninstall IBM Cognos Analytics, some temporary folders are left behind. Reinstalling the product to the same location without first removing the temporary folders may cause problems while attempting to generate the cryptographic keys in IBM Cognos Configuration.

### Procedure

1. Uninstall IBM Cognos Analytics.
2. Remove the *install\_location/temp/cam* folder.
3. Reinstall IBM Cognos Analytics.

## CAM-CRP-1315 error when saving configuration

When you save your configuration, an error occurs when there has been a change to your environment's trust domain.

There are several instances when the Cryptographic Keys may need to be regenerated. Beginning with Cognos 10.2.2, the traditional method to regenerate the cryptographic keys is no longer valid and the below steps would need to be followed instead. The trust domain is managed by the certificate authority associated with the content store. The following error occurs if the content store you originally used was removed or if you modified your configuration to use a Content Manager associated with a different content store after you have saved your original configuration.

*CAM-CRP-1315 Current configuration points to a different Trust Domain than originally configured.*

To resolve the problem, change your configuration to use the original content store or regenerate the cryptographic keys using the following steps.

### Procedure

1. On the computer that reports the error, stop the Cognos services and launch **Cognos Configuration** and click **File** > **Export As**.
2. Remove the *install\_location/temp/cam/freshness* file.
3. Back up the existing cryptographic keys by saving the following directories to an alternate location that is secure:
  - *install\_location/configuration/csk*

- *install\_location*/configuration/certs
4. Delete the csk directory.
  5. Except for the jCAPublisherKeystore file, which must be retained, clear the certs directory.
  6. Repeat on all computers that report this error.
  7. In IBM Cognos Configuration, save the configuration and restart the services.

## CAM-CRP-0221 error when logging into the portal

After installing IBM Cognos Analytics on Microsoft Windows operating system (either a 32-bit or 64-bit system) and configuring IBM HTTP Server as the gateway, attempts to log in to the IBM Cognos Analytics portal result in an error message that contains the following:

*CAM-CRP-0221 Unable to load the provider 'CAM\_Crypto\_TOpenSSL.dll' specified in the configuration file.*

This error occurs when incompatible versions of OpenSSL libraries are loaded. To resolve the problem, load the OpenSSL libraries that are provided with IBM Cognos Analytics.

### Procedure

1. On the gateway computer, go to *IBM\_HTTP\_location*\conf directory and open httpd.conf in a text editor.
2. Add the following lines to the file:

```
LoadFile "install_location/cgi-bin/ssleay32.dll"
```

```
LoadFile "install_location/cgi-bin/libeay32.dll"
```

where *install\_location* is the path to the IBM Cognos Analytics installation directory.

## Manually changing the installation directory name affects installations running under an application server

After installing IBM Cognos Analytics using the installation wizard and later renaming the installation directory or manually copying the contents to another directory, you attempted to run IBM Cognos Analytics within an application server.

One of the following problems occurs:

- IBM Cognos Analytics does not start.
- Log directories are empty.
- Logs contain a linkage error or unsatisfied link error.

When you manually change the installation directory, the information in the IBM Cognos Analytics root directory becomes invalid. To resolve the problem, you must either update the IBM Cognos Analytics root directory before you create the IBM Cognos Analytics application file to deploy to the application server or you must reinstall IBM Cognos Analytics in the original location. If you reinstall IBM Cognos Analytics, follow the process for upgrading.

### Procedure

1. In the new or renamed installation directory, open *install\_location*/webapps/p2pd/WEB-INF/classes/cogroot.link in a text editor.
2. Replace the path with the new location of the installation directory and save the file.
3. To build the application file to be deployed to the application server, in IBM Cognos Configuration, from the **Actions** menu, select **Build Application Files**.

4. If you built and deployed an application file to the application server before updating the cogroot.link file, undo the deployment.
5. Deploy the new application file to the application server.

For more information about configuring IBM Cognos Analytics for another application server, see the *IBM Cognos Analytics Installation and Configuration Guide*.

## Configuration data is locked by another instance of IBM Cognos Configuration

You may get an error message that the configuration data is locked by another instance of IBM Cognos Configuration.

When you start IBM Cognos Configuration, it checks to see if the cogstartup.lock file exists in *install\_location/configuration*. The file may exist if a previous instance did not shut down properly or if another instance of IBM Cognos Configuration is running.

### Procedure

1. If another instance of IBM Cognos Configuration is running, exit that instance.  
Otherwise, any changes you make to the local configuration may result in errors.
2. If no other instance of IBM Cognos Configuration is running, delete the cogstartup.lock file in *install\_location/configuration*.
3. If the IBM Cognos service is stopped, click **Start**.

## java.lang.UnsatisfiedLinkError message when starting Cognos Configuration

When you start IBM Cognos Configuration, an error message appears similar to the following:

```
A fatal error occurred. Unable to run the application.
```

```
An exception occurred.
```

```
java.lang.UnsatisfiedLinkError: cogconfig_ini(libnsl.so.1:cannot open shared object file: No such file or directory)
```

### Cause

This error message indicates that a prerequisite component is not installed. In this case, the linux package `libnsl.so.1` is not installed

### Solution

To resolve this issue, follow these steps:

1. Install the package `libnsl.so.1` by typing the following:

```
yum install libnsl.so.1
```

2. Ensure that all prerequisites are now installed. For more information, see [Example: Checking the requirements for installing Red Hat Enterprise Linux \(RHEL\) 8.1](#).

## Unable to exit a tab sequence when using keyboard-only navigation in IBM Cognos Configuration

If you use the Tab key to navigate in IBM Cognos Configuration, you may experience problems exiting a tab sequence. For example, in the Properties window, you can press the Tab key to move from one property to another.

However, because IBM Cognos Configuration is a Java application, when you want to close the Properties window, you must press Ctrl+Tab.

## Unable to save your configuration

You may be unable to save your configuration because you are missing a resource. For example, you delete a resource such as the Cognos namespace, a cryptographic provider, or the content store. You can specify a different database type for the content store with Oracle, Microsoft SQL Server, Informix, or Sybase. You can also configure a new cryptographic provider. You cannot specify a new Cognos namespace, but you can recreate it. However, you must then recreate your Cognos groups and roles.

### Recreating the Cognos namespace

If you deleted the Cognos namespace, you must recreate it and then recreate your Cognos groups and roles.

#### Procedure

1. Start IBM Cognos Configuration.
2. In the **Explorer** window, under **Security**, right-click **Authentication** and then click **New resource > Namespace**.
3. In the **Name** box, type a name for the resource.
4. In the **Type** box, click **Cognos**, and then click **OK**.

The Cognos namespace displays in the **Explorer** window.

5. From the **File** menu, click **Save**.
6. Recreate the Cognos groups and roles using IBM Cognos Administration.

For more information, see the *IBM Cognos Analytics Administration and Security Guide*.

## Java error when starting IBM Cognos Configuration

When you start IBM Cognos Configuration, you may receive an error message that the Java Runtime Environment (JRE) has changed and that the current cryptographic information is not compatible with the new JRE. You may then be prompted to regenerate the cryptographic information for the new JRE or exit to switch back to the previous JRE.

This error may occur for one of these reasons:

- Your configuration data was encrypted using a different JRE than the one IBM Cognos Analytics components are currently using.
- The cryptographic information may have been corrupted.

If you click **Regenerate** in the error dialog, the IBM Cognos service is stopped and the cryptographic information is regenerated.

If you click **Exit** in the error dialog, you must set the JAVA\_HOME environment variable to point to the JRE that you used to save your configuration.

On Microsoft Windows operating system, if you want IBM Cognos Analytics components to use the JRE that is installed by default, unset JAVA\_HOME or set JAVA\_HOME to *install\_location/bin/jre*.

**Note:** If you want to change from one JRE to another, see the topic on changing the version of JVM that IBM Cognos Analytics components use. For more information, see the *Installation and Configuration Guide*.

## Cryptographic error when starting IBM Cognos Configuration

When you start IBM Cognos Configuration, the following error message may display:

*The cryptographic information may have been corrupted or the cogstartup.xml file is invalid. You may have to fix this file or remove it from disk. For more information, see the Installation and Configuration Guide.*

This error occurs when IBM Cognos Analytics components detect an error in the cogstartup.xml file. This can occur when the cogstartup.xml file is manually edited and there is an error in the changed text.

To resolve the problem, replace the cogstartup.xml file with a copy from your backup location.

## Restarting the IBM Cognos service to apply configuration settings

After changing default property values or adding a resource to your installation in IBM Cognos Configuration and then saving the configuration, you may not see the changes or be able to use the resource in the run-time environment.

To apply the new settings to your computer, you must restart the IBM Cognos service.

### Procedure

1. Start IBM Cognos Configuration.
2. From the **Actions** menu, click the appropriate command:

- If the IBM Cognos service is currently running, click **Restart**.

This action starts all installed services that are not running and restarts services that are running. If you want to restart a particular service, select the service node in the **Explorer** window and then click **Restart** from the **Actions** menu.

- If the IBM Cognos service is stopped, click **Start**.

This action starts all installed services that are not running. If you want to start a particular service, select the service node in the **Explorer** window and then click **Start** from the **Actions** menu.

## CM-CFG-029 error when trying to save a configuration that specifies a Microsoft SQL Server content store

In IBM Cognos Configuration, you try to save a configuration and the following error message is in the cogaudit.log file:

*CM-CFG-029 Content Manager is unable to determine whether the content store is initialized.*

*EXECUTE permission is denied on object "sp\_tables", database "master", owner "dbo".*

This indicates that you do not have the correct permissions to initialize a content store or create a table in the database.

Ensure that the content store user has permissions to use the sp\_tables stored procedure in the master database.

## Db2 not found error for Linux on System z

You installed IBM Cognos Analytics and after you ran the C8DB2.sh script, an error stating that Db2 cannot be found is displayed or written to the log files.

### Procedure

1. Create a profile that sources the sqllib/db2profile from the user's home directory for the user you enter when you run the script.

An example .profile would contain something like the following:

```
if [ -f /home/db2user/sqllib/db2profile ]; then
    ./home/db2user/sqllib/db2profile
fi
```

2. Run the C8DB2.sh script again.

## DPR-ERR-2079 when Content Manager configured for failover

You configured multiple computers as standby computers to ensure failover for Content Manager. However, the following error message displays to the user:

```
DPR-ERR-2079 Firewall Security Rejection. Your request was rejected
by the security firewall
```

This error message can occur if you have not configured all the standby computers as valid hosts for the IBM Cognos Application Firewall.

To solve this problem, on each distributed computer, start IBM Cognos Configuration and enter the names of all the computers that you are configuring for failover.

### Procedure

1. In the **Explorer** pane, click **Security > IBM Cognos Application Firewall**.
2. In the **IBM Cognos Application Firewall - Component Properties** window, click in the **Value** column next to **Valid domains or hosts**.
3. Click the edit icon.
4. Enter the names of all the computers that you are configuring for failover.
5. Save and start the configuration.

## Importing a large deployment in Windows crashes the Java virtual machine

The Java virtual machine under Microsoft Windows operating system may crash under the following circumstances.

- The maximum Java memory setting is 1152 MB or higher.
- You are importing a large archive from a previous release of IBM Cognos Analytics.
- The archive contains large models that require upgrading.

### Procedure

1. Start IBM Cognos Configuration.
2. In the **Explorer**, under **Environment, IBM Cognos services**, click **IBM Cognos**.
3. Set the **Maximum memory in MB** property to 768.

## CCL-BIT-0006 error message when using WebSphere Application Server on a heavily loaded system

On a heavily loaded system that uses WebSphere Application Server, some connections might terminate before IBM Cognos Analytics finishes processing a request.

You might see the following message in the *install\_location\logs\cogaudit.log* file:

```
Failure RSV-SRV-0063 An error occurred while executing the 'asynchRun_Request'
command. CCL-BIT-0006 The HTTP message is unexpectedly short.
```

When the connection closes before the request is processed, the request is lost and the user must resubmit the request.

Use the following steps to eliminate this error or reduce its frequency:

- From the *install\_location\wlp\usr\servers\cognosserver* directory, open the *bootstrap.properties* file in Notepad.
- In the *bootstrap.properties* file, locate the *persist.timeout* parameter, and increase its value by 10-15 seconds. The default value is 60s.
- Restart the Cognos Analytics service.

If the issue is not resolved, repeat the steps increasing the time in 10-15 second intervals until the error no longer or rarely occurs.

## Font on UNIX not found when starting IBM Cognos Configuration

A common problem occurs on UNIX, when you start IBM Cognos Configuration.

The following error message may display:

*Font specified in font.properties not found...*

This error occurs if the Java Virtual Machine (JVM) is trying to use one or more fonts that are not installed on your computer. However, the JVM should use the system default, and IBM Cognos Configuration should start and run normally.

### Procedure

Add the missing fonts to your Java Runtime Environment by editing the *font.properties* files.

Several *font.properties* files, which contain standard font environment information, are installed with your Java Software Development Kit. You can find these files in the *JRE\_location/lib* directory.

For more information, see the Java documentation.

## Problems testing data source connections with IBM Cognos Analytics deployed on SAP NetWeaver Application Server 7.1.1 on UNIX

If you have deployed IBM Cognos Analytics on SAP NetWeaver Application Server 7.1.1 running on a UNIX operating system, you may receive an error when you test your data source connections in IBM Cognos Administration.

To resolve this problem, you must update the library path and all paths used for database client access in a SAP environment file named *.sapenv\_servername.sh*, where *servername* is the name of your server.

### Procedure

1. Go to the SAP administrator user's home directory.
2. Locate the file named *.sapenv\_servername.sh*, where *servername* is the name of your server.
3. Open the file in a text editor.



4. Add *install\_location/bin64* to the library path and any path locations required for database client access.

For example, if you have installed IBM Cognos Analytics to */server1/home/ibm/cognos/install*, your library path would look like the following:

```
LIBPATH=/server1/home/ibm/cognos/install/bin64:/db/oracle/11.1.0.6/lib32:  
/server1/home/db2user/sql/lib/lib32:/usr/lib:/lib:$_DEF_EXE; export LIBPATH
```

5. Save the file, and restart the SAP and IBM Cognos Analytics processes.
6. Test your database connections.

## Group membership is missing from Active Directory namespace

If an Active Directory namespace is configured for the same forest and a user is authenticated using a credential, the group membership will be missing.

The process identity of IBM Cognos Analytics, when running as a local system account or a domain user, must have one of these privileges:

- impersonate a client after authentication
- act as part of the operating system

If the privilege is missing, there is no group membership for the authenticated user.

### Note:

To update a user's expired password, you must use a domain admin account (not a local system account).

## Adding group membership for an Active Directory namespace

To add group membership for an Active Directory namespace, you must add the process identity for IBM Cognos Analytics to the local security policy.

### Procedure

1. From the **Start** menu, click **Settings, Control Panel**.
2. Click **Administrative Tools**, and then double-click **Local Security Policy**.
3. In the console tree, click **Security Settings, Local Policies**.
4. Click **User Rights Assignment**.
5. Add the process identity of IBM Cognos Analytics to one of the following policies:

- Impersonate a client after authentication

The default is Administrators, Service.

For more information, see the library article [fe1fb475-4bc8-484b-9828-a096262b54ca1033.msp](#) at the Microsoft Web site.

- Act as part of the operating system

The default is Local system.

For more information, see the library article [ec4fd2bf-8f91-4122-8968-2213f96a95dc1033.msp](#) at the Microsoft Web site.

Both of these privileges give an account the ability to act as another user.

The privilege Impersonate a client after authentication is similar to the Act as part of the operating system privilege except that it will only allow a process to impersonate after authentication, whereas the privilege Act as part of the operating system allows a process to impersonate before authentication.

For more information, see the library article [tkerbdel.msp](#) at the Microsoft Web site.

## CGI timeout error while connected to IBM Cognos Analytics through a Web browser

When performing operations through your Web browser, you receive the following error message:

*CGI Timeout, process will be deleted from server.*

The error occurs when you use Microsoft Internet Information Services (IIS) as your Web server and the gateway is configured to use CGI. IIS has a default timeout for CGI applications; you can increase the CGI timeout in IIS.

### Increasing the CGI timeout

To resolve a CGI timeout error in the Web browser, you can increase the duration of the CGI timeout in IIS.

#### Procedure

1. In the administrative tools for Microsoft Windows operating system, open Internet Information Services.
2. Under the local computer node, right-click **Websites** and select **Properties**.
3. In the **Home Directory** tab, click **Configuration**.
4. In the **Process Options** tab, increase the CGI script timeout.

## Desktop icons or IBM Cognos Configuration window flicker on Windows

When you run IBM Cognos Configuration on Microsoft Windows operating system, you may notice that the desktop icons or the IBM Cognos Configuration window flickers.

#### Procedure

Start IBM Cognos Configuration using the -noddraw command line option.

## Missing translations for object names in some locales

After you upgrade IBM Cognos Analytics or import an archive, some object names might not be localized for certain locales. For example, names display in English, and not in the specified language.

This problem might occur in the following situations:

- Cognos Analytics was upgraded to a newer version, but an older content store version was configured as the active Content Manager.
- An archive that was created with IBM Cognos Business Intelligence or an older version of Cognos Analytics was imported into a newer version of Cognos Analytics.

For example, you might encounter untranslated object names in the Catalan, Croatian, Danish, Greek, Kazakh, Norwegian, Slovak, Slovenian, or Thai locale if your IBM Cognos Business Intelligence 10.2 installation is configured with the 10.1 version of Content Manager. Support for the above-mentioned locales was added in IBM Cognos Business Intelligence versions 10.1.1 and 10.2 so your 10.1 version of Content Manager does not have these translations.

To add the translations into the Cognos Analytics environment, perform the following procedure.

#### Procedure

1. Start IBM Cognos Configuration on the computer where the active Content Manager service is installed.
2. From the **Actions** menu, click **Edit Global Configuration**.

3. Confirm that the required locales are listed on the **Content Locales** and **Product Locales** tabs. If the locales are missing, add them and save your changes.
4. Go to *install\_location/webapps/p2pd/WEB-INF/classes* directory, and confirm that a *cmmsgsRL\_locale.properties* message file exists for each required locale. For example, for Slovenian this message file is the *cmmsgsRL\_sl.properties* file.
5. In the *install\_location/configuration* directory, copy the *updateInitialContentNames.xml.sample* file and save it as *updateInitialContentNames.xml*.
6. Edit the *updateInitialContentNames.xml* file:
  - a) Specify the locales that you want to add.  
For example, modify the file in the following way to display Croatian and Slovenian object names:

```
<updateInitialContentNames>
<locales>
<locale>hr</locale>
<locale>sl</locale>
</locales>
</updateInitialContentNames>
```
  - b) Remove or comment out any other locales that are not affected by the localization issue.
  - c) Save your changes.
7. Start the IBM Cognos service.
8. To add another locale later, repeat these steps.

## Results

The localized object names are added during the IBM Cognos service startup process. You can view the results of the operation in the *cogaudit.log* file. The *updateInitialContentNames.xml* file is deleted in the process to prevent unnecessary updates on each restart.

## IIS requests fail with the HTTP 502 Bad Gateway error in Cognos Analytics

In a Cognos Analytics environment with the Microsoft Internet Information Services (IIS) web server installed with a gateway, users see **HTTP 502 Bad Gateway** errors when long-running requests are sent through the IIS web server.

These errors can occur in the following situations:

- A client tool, such as PowerPlay, uses the IIS web server in the Gateway URI field, and users run reports based on PowerPlay cubes.
- Users run large reports in Cognos Analytics or in an integrated tool, such as IBM Cognos for Microsoft Office.

Other potential causes for HTTP 502 Bad Gateway errors with IIS are:

- Invalid reverse proxy URL.
- Incorrectly configured server farm (if using multiple application tiers when configuring IIS for Cognos Analytics)
- Using HTTPS dispatcher URL in the reverse proxy, but not importing the dispatcher certificate on the IIS server using Microsoft Management Console (MMC)

The issue does not occur when you log in to Cognos Analytics through the dispatcher URI and run the same report.

## Resolving the problem

To resolve the problem, complete the following steps in IIS:

- Set the Application Request Routing (ARR) timeout to a higher setting.

The default timeout is 120 seconds. You can try setting the timeout to 160 seconds.

- If a server farm is used (two or more dispatchers are configured for routing in IIS), the timeout setting is located in: IIS > Server Farm > Proxy > Timeout.
- If a server farm is not used, the timeout setting is located in: IIS > Server Name (under Start Page) > ARR Cache > Server Proxy Settings > Timeout.
- Restart the IIS server.

---

## Chapter 2. Security problems

You may encounter problems when you administer security for IBM Cognos components.

### Access to entries is denied during deployment

---

If you deploy data using the Reports Administrator role, access to security entries may be denied. By default, the Reports Administrator role does not have write access to the Cognos namespace.

Before you deploy, modify the permissions of this role to ensure that it has read and write permissions for the Cognos namespace.

### Prompt to change password when logging on to an Active Directory namespace

---

When logging on to IBM Cognos components using a Microsoft Active Directory namespace, the submitted password is recognized as expired and you are prompted to change it. This occurs even if the password should still be valid. If the password is successfully changed, the behavior still occurs.

The following error message appears:

Your password has expired. Please change it.

Please type your credentials for authentication.

The solution is to set up the authority for delegated administration for IBM Cognos components. Ensure that the server name or named account for starting the IBM Cognos service is set up in the Active Directory properties as an authority for delegated administration. Without these permissions, IBM Cognos components are unable to read all user properties from the Active Directory server.

For more information, see the Active Directory documentation.

### Unable to log on

---

If IBM Cognos components use an Active Directory Server as the security provider, you may not be able to log on using only your user ID.

One of the following errors may appear:

Your password has expired. Please change it.

The provided credentials are invalid.

This problem occurs when the Content Manager service runs under the local system account and runs on a computer that is not part of the Active Directory Server domain.

To log on, you must qualify your user ID using the domain name. For example, when you log on, type `domain\user ID`

If you still cannot log on, contact your IBM Cognos security administrator.

### CM-CAM-4005 unable to authenticate

---

The message CM-CAM-4005 unable to authenticate might appear when you attempt to log in to IBM Cognos Analytics.

In addition, the following error messages are recorded in the `CogAudit.log` file:

- CM-SYS-5192 An error occurred with Content Manager

- `CacheFreeList.allocateFromBlock::free list is empty`
- CM-REQ-4377 Content Manager returned an error in the response header. The following root cause is being returned in the response SOAP Header: "cmCMEError CacheFreeList.allocateFromBlock::free list is empty." This root cause error has caused the following additional error messages to be returned in the header: "[cmAuthenticateTCUnexpectedFault CM-HDR-4010 An unexpected error occurred while authenticating using trusted credentials.]"

The message `CacheFreeList.allocateFromBlock::free list is empty` occurs when during high-load periods Content Manager runs out of internal resources that are controlled by the `CacheFreeList` structure. Maximum number of resources that `CacheFreeList` can hold can be adjusted through the `MAX_LOCK_HANDLES` and `CMCACHE_QUERYCACHE_FREELIST_SIZE` advanced settings.

## Resolving the problem

To resolve this issue, in the `bootstrap.properties` file, for the `MAX_LOCK_HANDLES` and `CMCACHE_QUERYCACHE_FREELIST_SIZE` advanced settings, specify a value of 20000. Follow these steps:

1. Go to the Cognos Analytics *installation\_location*\wlp\usr\servers\cognosserver directory.
2. Copy the file `bootstrap.properties` and save it as `bootstrap.properties.backup`.
3. Open the `bootstrap.properties` file in a text editor.
4. Add the following line:

```
cm.advancedSettings=MAX_LOCK_HANDLES:20000;CMCACHE_QUERYCACHE_FREELIST_SIZE:20000
```

5. Save the `bootstrap.properties` file.
6. Restart the Cognos Analytics service.

## Certificate Authority Error When Logging on

You attempt to log on, entering a valid user ID and password, in an environment that uses the default IBM Cognos Cryptographic Provider settings. However, the following error message appears:

CAM-CRP-1071 Unable to process a remote request for the common symmetric key.

The certificate with the DN 'C=CA,O=Cognos,CN=CAMUSER' issued by the Certificate Authority with the DN 'C=CA,O=Cognos,CN=CA' is not trusted.

Reason: Exception thrown while doing CertPath validation

Cause: certificate expired on yyyyymmddhhmmGMT+00:00

This problem occurs when the certificate issued by the Certificate Authority (CA) has expired. You can renew the certificate by saving the configuration in IBM Cognos Configuration on the computer where Content Manager is installed and then restarting the IBM Cognos service.

## HTTPS DRP-ERR-2068 Error in Log File When no Error Is Reported During a Switch to HTTPS

You stopped the services on all computers in a distributed installation and configured the computers to use SSL (HTTPS). You started the services successfully, with no reported errors. However, when you checked the log file, you found an error similar to the following:

HTTPS DPR-ERR-2068 The administration request failed. Cannot connect to dispatcher.

The error occurred because when you restarted the services, the dispatchers were initializing and could not communicate with each other. During the initialization, a normal administration request could not be

processed and a fault was generated. The fault was recognized as an initialization fault and so no error was shown during the startup. However, IBM Cognos Application Firewall does not distinguish between a regular fault and an initialization fault. As a security best practice, all messages are sent to the log file.

You can ignore the message in the log file.

## Existing Passwords May not Work in an SAP Namespace

---

When you log on using an SAP namespace, some previously functional passwords may no longer work.

The following error message may appear:

*Unable to authenticate a user. Please contact your security administrator. Please type your credentials for authentication.*

This is because of a policy change in SAP software. In previous versions of SAP software, passwords were not case sensitive. All password characters were automatically converted to uppercase. In SAP RFC 6.40, password characters are not automatically converted to uppercase and so passwords are case sensitive.

To address the password policy change, the SAP BAPI interface introduced a new configuration parameter named `bapiPasswordConv`. Using this parameter, you can enable or disable the functionality that automatically converts all password characters to uppercase. To ensure that all previously created passwords can still provide successful logon, set the value of the `bapiPasswordConv` parameter to true.

### Procedure

1. Open the file `bapiint_config.xml`.

This file is located in the `install_location\configuration` directory.

2. Change the value of the `bapiPasswordConv` parameter to true, as shown in the following fragment of code:

```
<bapiAbapDebug value="false"/>
  <bapiTransCall value="false"/>
  <bapiCharConv value="true"/>
  <bapiCmdRecording value="false"/>
  <bapiCacheReset value="false"/>
  <bapiCallLocks value="false"/>
  <bapiSupportCancel value="true"/>
  <bapiMaxSuspendTime value="200"/>
  <bapiPasswordConv value="true"/>
```

3. Save the file.
4. Restart the IBM Cognos service.

### Results

For more information, see the following SAP Notes:

- 792850 - Preparing ABAP systems to deal with incompatible passwords
- 862989 - New password rules as of Web AS ABAP 7.0/NetWeaver 2004

## Unauthorized users can run reports

---

You use signons for authentication to create a data source connection, which allows users to use the same user name and password.

Later, you modify the signon to use an external namespace instead, such as LDAP, and the original signon is still used for authentication. This happens when the original signon was used because the information is subsequently stored in the content store.

### About this task

For example, when a report is in development and testing, you create a data source connection using signons as the method of authentication. When the report goes to production, you change the

authentication to an external namespace. You think that the namespace is being used for authentication but instead the original signon username and password are being used. This could create unexpected results due to order of preference.

## Procedure

1. Launch IBM Cognos Administration.
2. On the **Configuration** tab, select **Data Source Connections**.
3. Click the data source and then click the data source.
4. On the next page, click the data source again.
5. Select the check box for the signon, then click Delete.

## Results

The signon is deleted.

## Users Are Repeatedly Prompted for Credentials When Trying to Log On to an SAP Namespace

---

When users whose user IDs or passwords contain special characters try to log on to an SAP namespace, they are repeatedly prompted for credentials and may not be granted access.

This is because SAP BW systems, version 3.5 and older, by default use a non-Unicode code page. Newer SAP systems use a Unicode code page. As a result, the default SAP server code page was modified for the SAP authentication provider to use a Unicode code page, which is SAP CP 4110.

To avoid this issue, in IBM Cognos Configuration, modify the default **SAP BW Server Code Page** parameter for the SAP authentication provider to use a non-Unicode code page, such as SAP CP 1100.

## Expired Password Error Appears When Using Active Directory Server

---

You use Active Directory Server as an authentication provider. When you log on to IBM Cognos components, you see the following error message:

Your password has expired. Please change it.  
Please type your credentials for authentication.

Ensure that you set up the authority for delegated administration for IBM Cognos components. The server name or named account for starting the IBM Cognos service must be set up in the Active Directory Server as an authority for delegated administration. IBM Cognos components can then read all user properties from the Active Directory server. For more information, see the Active Directory Server documentation.

## Single Signon Is Not Working When Using Active Directory Server

---

You use Active Directory Server as an authentication provider and single signon is not working.

To ensure that users are not prompted to log on to IBM Cognos components, the following must be true:

- Active Directory is running in native mode.
- The user does not have the **Account is sensitive and cannot be delegated** attribute selected.
- For each IIS Web server, the following must be true:
  - This computer is part of the Active Directory domain.
  - If the process is running as a Local System Account, the **Trust computer for delegation attribute** is selected.
  - If the process is running as a Domain User Account, the **Account is trusted for delegation** attribute is selected.



- For each IBM Cognos Content Manager server, the following must be true:
  - This computer is part of the Active Directory domain
  - If the process is running as a Local System Account, the **Trust computer for delegation** attribute is selected
  - If the process is running as a domain User Account, the **Account is trusted for delegation** attribute is selected.
- Kerberos authentication must be the active WWW-authentication header.

**Note:** Kerberos will not work in an Internet zone.

## Unable to Identify Required SAP Permissions

---

You may encounter errors using SAP BW because your SAP user signon does not have sufficient permissions. To identify the permissions needed, use the ST01 transaction.

### Procedure

1. In SAP R/3, type /ST01 in the command window.
2. Under **Trace components**, select **Authorization check**.
3. Select **Change trace**.
4. In the **Options for Trace Analysis Field**, under **General Restrictions**, enter the user name of the IBM Cognos account you are tracing.

## Unable to automatically connect to an SAP BW data source when using SSO

---

You are unable to connect to an SAP BW data source when using SSO even though the data source is configured to use an external SAP namespace for authentication.

This problem occurs if all of the following conditions are met:

- An SAP namespace is configured in IBM Cognos pointing to SAP BW System A.
- IBM Cognos users are logged on to the SAP namespace using credentials (a user name and password), and not through the SAP Portal using single sign-on.
- A data source referring to SAP BW system B is defined and is configured to use an external namespace for data source authentication. The namespace referred to as external is the SAP namespace configured for authenticating users to IBM Cognos components.
- SSO tickets are enabled for the SAP BW server associated with the SAP namespace.

The SAP provider generates and caches SAP logon tickets to be used for authentication with an SAP data source. The provider uses the current user credentials, user name and password, to generate an SAP logon ticket.

If the SAP BW system associated with the data source does not accept logon tickets because of the SAP server configuration, or if the logon ticket presented is not valid because it originates from a system in a different SAP SSO domain, data source authentication will fail.

To solve this problem, you can federate the SAP systems into one SAP SSO domain so that the ticket generated for the user in one system is valid in the other system as well. If this solution is not possible, disable the use of SAP BW SSO tickets for the provider to trigger it to fall back to passing the credentials of the current user instead of a logon ticket. The credentials must be valid for all systems accessed as a data source.

You can disable SAP SSO tickets either on the SAP BW system used as a data source, or by specifying the `bapiSSOSupport` parameter in the `bapiint_config.xml` file installed with IBM Cognos components. As a result, the provider will use the entered credentials of the current user for data source authentication.

To disable the use of SSO tickets for data source authentication in the `bapiint_config.xml` file, perform the following steps for all IBM Cognos application tier components installed in your system.

## Procedure

1. Stop the IBM Cognos service.
2. Open the `bapiint_config.xml` file.

This file is located in the *install\_location*/configuration directory.

3. Search for the `bapiSSOSupport` parameter, and change its value to 0, as shown in the following example:

```
<bapiSSOSupport value="0"
```

If this parameter is not specified in the file, you must add it under the root element.

4. Save the `bapiint_config.xml` file.
5. Start the IBM Cognos service.

---

## Chapter 3. Administration problems

You may encounter problems when you administer IBM Cognos software.

### Data server connections problems

---

Each data source can contain one or more physical connections to databases. The topics in this section document problems you may encounter when setting up a data source connection.

#### Using the jdbcinfo tool

The jdbcinfo tool, `jdbcinfo.jar`, supports basic tests using JDBC data sources to help diagnose problems.

The `jdbcinfo.jar` file is located in `%COGNOS_HOME%\webapps\p2pd\WEB-INF\lib`, where `%COGNOS_HOME%` is the location where you installed Cognos Analytics.

The tool uses 'raw' inputs that would be supplied by a JDBC application and displays the 'raw' responses generated from the data source, its usage and the subsequent interpretation of its output is intended for an audience that is knowledgeable about the JDBC API. As such, it is expected that the tool will only be used at the direction of IBM Cognos when normal debugging and development practices used in IBM Cognos products have been exhausted.

#### Usage

The tool is packaged as a stand alone executable jar file that, through command-line options and classpath settings, can be used to replicate many different testing scenarios. To run it, you must use the same version of java that you are using with your IBM Cognos product. On windows platforms, this will usually be the JVM located in a directory similar to `%COGNOS_HOME%\ibm-jre\jre`. On Linux/Unix platforms, it will be the the JVM indicated by either the `JRE_HOME` or `JAVA_HOME` environment variables.

The syntax for executing the command is:

```
java -cp <classpath> com.ibm.cognos.jdbcinfo.App [args] [actions [parameters] ...]
```

or just for the latest command line help:

```
java -jar jdbcinfo.jar
```

#### Classpath

The value of `<classpath>` is a delimited list of fully qualified path names to jar files and directories containing jar files that will be loaded by jdbcinfo when running. On Windows, the delimiter is a semi-colon (;) while on Linux/Unix it is a colon (:).

The class path should include any JDBC drivers and IBM Cognos jar files you wish to include in the test, in addition to `jdbcinfo.jar`.

#### Args

There are four arguments that are required in most situations, which are the basic parameters to specify the driver and database to connect to and test:

- `-u user ID`
- `-p password`
- `-d driver class`
- `-U JDBC connection URL`

#### Actions

Once connected, jdbcinfo can perform a number of activities (typically executing JDBC methods) that produce responses that may be useful when debugging an issue. Any number of actions may be specified and they have the following syntax:

```
<action name> [parameters]
```

The keyword '-NULL-' is used to specify a null values parameter (where null values are allowed). Action parameters follow the naming and meaning as described for parameters the JDBC method being tested by the action. Having a JDBC API reference handy will be useful when using jdbcinfo.

The list of actions will grow as the tool is enhanced, but the current list is as shown in the following sub sections.

### Attributes

Executes **DatabaseMetadata.getAttributes** on the specified connection.

```
Attributes <catalog> <schema name pattern> <type name pattern> <attribute name pattern>
```

### Catalogs

Executes **DatabaseMetadata.getCatalogs** on the specified connection.

```
Catalogs
```

### Columns

Executes **DatabaseMetadata.getColumns** on the specified connection.

```
Columns <catalog> <schema name pattern> <table name pattern> <column name pattern>
```

### ConnectionProperties

Executes **Connection.getPropertyInfo** on the specified connection

```
ConnectionProperties
```

### DatabaseMetadataInterface

Tests the object obtained via **Connection.getMetaData** to verify compliance with the JDBC DatabaseMetadata interface specification.

```
DatabaseMetadataInterface
```

### DriverVersion

Executes the **DatabaseMetadata** driver version methods on the specified connection.

```
DriverVersion
```

### ExportedKeys

Executes **DatabaseMetadata.getExportedKeys** on the specified connection.

```
ExportedKeys <catalog> <schema> <table>
```

### ExtraInformation

Displays some extra information that the IBM Cognos application derives from the specified connection. Requires JDBCAdaptorSDK jar files to be included in the classpath to function.

```
ExtraInformation
```

## FactoryNames

Displays the JDBC adaptor factory class name and configuration file name used by IBM Cognos JDBCAdaptorSDK classes when establishing connections to the specified JDBC driver. Requires JDBCAdaptorSDK jar files to be included in the classpath to function.

```
FactoryNames
```

## FunctionColumns

Executes **DatabaseMetadata.getFunctionColumns** on the specified connection.

```
FunctionColumns <catalog> <schema name pattern> <procedure name pattern> <column name pattern>
```

## Functions

Executes **DatabaseMetadata.getFunctions** on the specified connection.

```
Functions <catalog> <schema name pattern> <function name pattern>
```

## ImportedKeys

Executes **DatabaseMetadata.getImportedKeys** on the specified connection.

```
ImportedKeys <catalog> <schema> <table>
```

## IndexInfo

Executes **DatabaseMetadata.getIndexInfo** on the specified connection.

```
IndexInfo <catalog> <schema> <table name> <unique> <approximate>
```

Unique and approximate are boolean values.

## KerberosConnection

Establishes a Kerberos authenticated connection. The tool creates a JAAS Subject from the credentials and places it in the authorization context (Subject.doAs()). The Kerberos implementation should retrieve it from there when the JGSS-API creates credentials.

```
KerberosConnection <driver class name> <jdbc url> <principal> <password>
```

- `jdbc url` should include the necessary kerberos-related properties for connecting using pre-authorized subject.
- `principal` is the client user account, not the database service.

## LoadOptions

Loads command line options previously saved using the SaveOptions Action. Useful for storing connection information in external files.

```
LoadOptions <file name>
```

## ProcedureColumns

Executes **DatabaseMetadata.getProcedureColumns** on the specified connection.

```
ProcedureColumns <catalog> <schema name pattern> <procedure name pattern> <column name pattern>
```

## Procedures

Executes **DatabaseMetadata.getProcedures** on the specified connection.

```
Procedures <catalog> <schema name pattern> <procedure name pattern>
```

## SaveOptions

Stores command line options into a text file for subsequent use with the LoadOptions Action. Useful for storing connection information in an external file.

```
SaveOptions <file name>
```

## Schemas

Executes JDBC V3 version of **DatabaseMetadata.getSchemas** on the specified connection.

```
Schemas
```

## SchemasV4

Executes JDBC V4 version of **DatabaseMetadata.getSchemas** on the specified connection.

```
SchemasV4 <catalog> <schema name pattern>
```

## ServerVersion

Executes the **DatabaseMetadata** server version methods on the specified connection.

```
ServerVersion
```

## Sql

Executes a SQL statement on the specified connection.

```
Sql <mode bitmask> <SQL query>
```

mode bitmask determines how the query is executed:

- 0, use `Connection.Prepare(<SQL Query>)` then call `execute` on the resulting `PreparedStatement` object.
- 1, use `Connection.Prepare(<SQL Query>)` then call `executeQuery` on the resulting `PreparedStatement` object.
- 2, construct a `Statement` Object then call `execute(<SQL Query>)` on it.
- 3, construct a `Statement` Object then call `executeQuery(<SQL Query>)` on it.

## SubType

Returns the sub type code (if any) that IBM Cognos assigns to the specified connection.

```
SubType
```

## TableTypes

Executes **DatabaseMetadata.getTableTypes** on the specified connection.

```
Tables
```

## Tables

Executes **DatabaseMetadata.getTables** on the specified connection.

```
Tables <catalog> <schema name pattern> <table name pattern> <type>[,type ...]
```

## TypeInfo

Executes **DatabaseMetadata.getTypeInfo** on the specified connection.

```
TypeInfo
```

## UDT

Executes **DatabaseMetadata.getUDT** on the specified connection.

```
UDT <catalog> <schema name pattern> <type name pattern> <types>
```

## Verbose

Increases the verbosity of jdbcinfo.

```
verbose
```

## Example of saving and loading connection options

In this example, we save the connection information to a file called `db2.info`, and then reuse it later.

### Note:

The classpath must include all the JAR files corresponding to the JDBC driver to be tested. In this example, the IBM JCC JDBC driver is used, where only one JAR file is required.

`%COGNOS_DRIVERS%` references the `drivers` folder in your CA environment into which you copied your JDBC driver JAR files.

### Saving

```
java -cp jdbcinfo.jar:db2/%COGNOS_DRIVERS%/db2jcc4.jar com.ibm.cognos.jdbcinfo.App  
-U jdbc:db2://server:50105/dbname -d com.ibm.db2.jcc.DB2Driver -u user  
-p password saveoptions db2.info
```

```
Action SaveOptions:  
saving configuration to: db2.info
```

```
db2.info contains the following  
#automatically generated file  
URL=jdbc\:db2\://server\:50105/dbname  
driverClass=com.ibm.db2.jcc.DB2Driver  
user=user  
password=password
```

### Loading

```
java -cp jdbcinfo.jar:db2/%COGNOS_DRIVERS%/db2jcc4.jar com.ibm.cognos.jdbcinfo.App loadoptions  
db2.info
```

```
Action LoadOptions: loading configuration from: db2.info
```

## Example of displaying version information

In this example, we retrieve the driver and server version information. For brevity, we use the connection information we saved in the Saving Connection Options example.

### Note:

The classpath must include all the JAR files corresponding to the JDBC driver to be tested. In this example, the IBM JCC JDBC driver is used, where only one JAR file is required.

`%COGNOS_DRIVERS%` references the `drivers` folder in your CA environment into which you copied your JDBC driver JAR files.

### Command

```
java -cp jdbcinfo.jar:db2/%COGNOS_DRIVERS%/db2jcc4.jar com.ibm.cognos.jdbcinfo.App  
loadoptions db2.info driverVersion serverversion
```

## Response

```
configuration:
Java version: n.n.n_nn
Java vendor: Oracle Corporation
Java vm name: OpenJDK 64-Bit Server VM
Using classpath jdbcinfo.jar:db2/n.nn.nn/db2jcc4.jar

Action LoadOptions:
loading configuration from: db2.info

Action DriverVersion:
* attempting to load driver...
* Driver loaded. driver major version: n driver minor version: n driver is JDBC compliant: true
* attempting to get metadata from connection ...
* attempting to connect...
* connected.
* successfully created metadata object.
driver version: n.nn.nn
JDBC major version: n
JDBC minor version: n

Action ServerVersion:
database product name: DB2/AIX64
database major version: nn
database minor version: n
database product version: xxxnnn

closing connection ...
```

## Example of displaying Tables

In this example, we retrieve the list of tables of type VIEW in the database.

### Note:

The classpath must include all the JAR files corresponding to the JDBC driver to be tested. In this example, the IBM JCC JDBC driver is used, where only one JAR file is required.

%COGNOS\_DRIVERS% references the drivers folder in your CA environment into which you copied your JDBC driver JAR files.

### Command

```
java -cp jdbcinfo.jar:db2/%COGNOS_DRIVERS%/db2jcc4.jar com.ibm.cognos.jdbcinfo.App
loadoptions db2.info tables -null- -null- -null- VIEW
```

## Response

```
Action LoadOptions:
loading configuration from: db2.info

Action Tables: calling getTables(null, null, null, [VIEW])
* attempting to get metadata from connection ...
* attempting to load driver...
* Driver loaded.
* attempting to connect...
* connected.
* successfully created metadata object.
361 rows returned.
  1 TABLE_CAT (VARCHAR): null
  1 TABLE_SCHEM (VARCHAR): dbname
  1 NAME (VARCHAR): VIEW_6_TABLE
  1 TABLE_TYPE (VARCHAR): VIEW
  1 REMARKS (VARCHAR): null
  1 TYPE_CAT (VARCHAR): null
  1 TYPE_SCHEM (VARCHAR): null
  1 TYPE_NAME (VARCHAR): null
  1 SELF_REF_COL_NAME (VARCHAR): null
  1 REF_GENERATION (VARCHAR): null

  2 TABLE_CAT (VARCHAR): null
  2 TABLE_SCHEM (VARCHAR): dbname
  2 NAME (VARCHAR): VIEW_BETWEEN1
  2 TABLE_TYPE (VARCHAR): VIEW
  2 REMARKS (VARCHAR): null
```



```
2 TYPE_CAT (VARCHAR): null
2 TYPE_SCHEM (VARCHAR): null
2 TYPE_NAME (VARCHAR): null
2 SELF_REF_COL_NAME (VARCHAR): null
2 REF_GENERATION (VARCHAR): null
...
closing connection ...
```

## Cannot Connect to an SQL Server Database Using an OLE DB Connection

You cannot create a native connection to a Microsoft SQL Server using OLE DB.

The following error messages appear:

QE-DEF-0285 Logon failure

QE-DEF-0325 The cause of the logon failure is:

QE-DEF-0068 Unable to connect to at least one database during a multi-database attach to 1 database(s) in: testDataSourceConnection

UDA-SQL-0031 Unable to access the "testDataSourceConnection" database

UDA-SQL-0107 A general exception has occurred during the operation "{0}"

UDA-SQL-0208 There was an error initializing "MSDA" for OLEDB

The solution is to ensure that MDAC version 2.71 or higher is installed. The registry of the local system should hold the MDAC version information.

## Intermittent Problems Connecting to an SQL Server Database

You use SQL Server database as a reporting data source.

You test the same database connection several times. Sometimes the test succeeds, but other times you see one of the following or a similar error message:

*SQL Server cannot be found.*

*Access denied.*

In addition, when you run reports, sometimes they run but other times you see the following or a similar error message:

*Connection not found - Check DNS entry or select different connection.*

You may also have problems creating the database that is used for the content store.

These errors can occur if you configure named pipes instead of TCP/IP protocol as the default network library in the SQL Server Client Network Utility for a SQL Server reporting or content store database.

## Oracle Kerberos JDBC connection failure: Unsupported key type found the default TGT: 18

When you attempt to connect to an Oracle Kerberos data source via JDBC, the following message appears:

Unsupported key type found the default TGT: 18

IO Error: The service in process is not supported. Unable to obtain Principal Name for authentication

This issue occurs because Cognos Analytics is not configured with the ciphersuites used for encryption in the file `krb.conf`.

For more information, see [Configure JDBC data source connections for single sign-on using Kerberos](#).

### Resolving the problem

To resolve this issue, perform these steps on all of your Cognos Analytics application servers:

1. Locate the file `krb5.ini` and open it in a text editor.


**Tip:** For more information, see [Creating Kerberos initialization files](#).

2. Make a note of all the values of the following settings:

- `default_tgs_enctypes`
- `default_tkt_enctypes`
- `permitted_enctypes`

3. Start Cognos Configuration.

4. Navigate to **Security > Cryptography > Supported ciphersuites**.

5. Click the pencil icon .

The **Value - Supported cipher suites** window appears.

6. In the **Available values** list, select the check boxes corresponding to all the values you noted in step “2” on page 42.

7. Click **Add** to move the selected values to the **Current values** list.

8. Click **OK**.

9. Save the configuration, and then restart the Cognos Analytics service.

## Content Manager Connection Problem in Oracle (Error CM-CFG-5036)

Starting the IBM Cognos Service does not create the tables in an Oracle Content Manager.

One of the following error messages is generated:

*CM-CFG-5063 A Content Manager configuration error was detected while connecting to the content store.*

*CM-CFG-5036 Content Manager failed to connect to the content store.*

*CM-SYS-5007 Content Manager failed to start. Review the Content Manager log files and then contact your system administrator or customer support.*

When you create a new database in Oracle, the SID name that is created has no underscore in it. You must use this SID with no underscore as the Service Name in IBM Cognos Configuration.

### Procedure

1. Ensure that you can contact the Oracle instance through `tnsping <SID>` where the `<SID>` does not contain an underscore.
2. Configure the Oracle Content Manager connection in IBM Cognos Configuration so that the Service Name is the same as the `<SID>` in step 1.

## Error when importing Sybase metadata

When you import Sybase metadata in which `DatabaseMetadata.getTable` is called, an error message appears if the database includes user-defined functions.

The error message appears similar to the following:

```
MSR_GEN_0097 Error while getting catalogs and schemas for: "SYBASEASE_CERT". Unable to connect
to the data source. "JZ00L: Login
failed. Examine the SQLWarnings chained to this exception for the reason(s)

com.sybase.jdbc4.jdbc.SybSQLException: No such object or user exists in the database.
```

To avoid this issue, ensure that the response from `DatabaseMetadata.getTable` only describes objects that include Tables and Views.

## Cannot Connect to an OLAP Data Source

You cannot connect to an OLAP source, such as SAP BW or Db2 OLAP.

Confirm the following:

- You can open the OLAP server from Microsoft Excel. Most OLAP vendors have a plug-in which allows connectivity through Excel.
- You have the correct client software installed on the relevant IBM Cognos servers. Any IBM Cognos computer which retrieves data from the OLAP source must have the appropriate client software.
- For MSAS, check that Pivot Table service is installed and the correct service pack is applied.
- You can open the OLAP source through IBM Cognos Series 7.
- You can open either the OLAP vendor samples or the IBM Cognos samples. The problem may be specific to one model, outline, or cube.
- The user making the request from IBM Cognos software is a Domain user with the appropriate access rights.

## Unable to Select ODBC as the Type of Data Source Connection

Because IBM Cognos software on UNIX does not support all ODBC drivers, when you create data source connections to IBM Red Brick®, Microsoft SQL Server, or NCR Teradata databases, you cannot select ODBC as the type of data source connection.

To create an ODBC connection to these database vendors, select Other Type instead.

For the following database vendors, add the associated database codes when you type the connection string.

Table 7. Database codes used for connections string according to the associated database vendor	
Database vendor	Database code
IBM Red Brick	RB
Microsoft SQL Server	SS
NCR Teradata	TD

Type the data source connection, as follows:

```
[^UserID:[^?Password:];LOCAL;{RBSSTD};DSN= Data_Source ; UID=%s;PWD=%s][@ASYNC={01}]
[@ Connection_Timeout/ Reply_Timeout ][@COLSEQ=[ Collation_Sequence ]]
```

The following are examples of connection strings:

- ^UserID:^?Password:;LOCAL;RB;DSN=DB62SALES;UID=%s;PWD=%s@ASYNC=0
- ;LOCAL;SS;DSN=TESTSERVER

To create data source connections to Microsoft SQL Server from UNIX, you must use the DataDirect ODBC driver for SQL Server.

## Error When Creating a Data Source Connection to a PowerCube

When you create a data source connection to a PowerCube where both the PowerCube and all report servers are on UNIX or Linux computers, the following error may appear:

The field "Windows location:" is mandatory

To solve the problem, type any characters in the **Windows location** field. The **UNIX or Linux location** must be correct.

## CAM-CRP-0016 Unable to process the configuration data in the cryptographic engine

This error message can occur when Cognos Analytics is bundled with a product that connects to an external database. When you create a data server connection to the database, the password for the database is stored in an encrypted file. However, if the database password changes, the data server connection no longer works.

Initially, the following message appears:

The IBM Cognos gateway is unable to connect to the IBM Cognos Analytics server. The server may be unavailable or the gateway may not be correctly configured.

Another, more precise error message appears in the file `cogaudit.log`:

```
CAM-CRP-0016 Unable to process the configuration data in the cryptographic engine.<errorCode>-13</errorCode>CAM-CRP-0277 Unable to open the key store file '/data/ibm/cognos/analytics/cgi-bin/./configuration/encryptkeypair/jEncKeystore'.
```

### Resolving the problem

When the database password changes, you must update the database password file for the bundled product, encrypt it, and then use it to replace the encrypted password file in the Cognos Analytics environment.

For example, to resolve this issue when Cognos Analytics is bundled with IBM Maximo, follow these steps:

1. In the Maximo environment, update the database password file.
  - a. Go to *Maximo\_installation\_location*\reports\cognos\analytics\configuration
  - b. Edit the file `mxcognosdatasources.properties`.
  - c. Change the database password in this line:

```
maximoDataSource.password=cognos_password
```

2. Encrypt the password file.
  - a. Go to *Maximo\_installation\_location*\reports\cognos\tools
  - b. Run `encryptproperties.cmd` (in Windows)OR  
Run `encryptproperties.sh` (in UNIX/Linux)

A new, encrypted password file `mxcognosdatasources_enc.properties` appears in *Maximo\_installation\_location*\reports\cognos\analytics\configuration

3. Replace the old encrypted password file in the Cognos Analytics environment with the one you just created.
  - a. Copy the file `mxcognosdatasources_enc.properties` from *Maximo\_installation\_location*\reports\cognos\analytics\configuration
  - b. Paste the copied file into this folder:  
*Cognos\_Analytics\_installation\_location*\configuration
  - c. Rename the copied file `mxcognosdatasources_enc.properties` to `mxcognosdatasources.properties`

The old encrypted password file is overwritten by the new one.

4. In *Cognos\_Analytics\_installation\_location*\configuration, grant full read/write privileges to the files `csk` and `cogconfig.prefs`.
5. Restart the Cognos and Maximo services.

## javax.net.ssl.SSLPeerUnverifiedException: Certificate doesn't match

This error message occurs in Cognos Analytics when the Planning Analytics server hostname doesn't match the Subject Alternative Name (SAN) in the digital certificate, which the server sends back as a part of the SSL connection handshake.

Here is the full text of the error message:


```
[400] javax.net.ssl.SSLPeerUnverifiedException: Certificate for <some.foo.com>
doesn't match any of the subject alternative names: [other.bar.com]
```

### Resolving the problem

You can consider two options to resolve the problem:

- Use a certificate with a hostname identical to the Planning Analytics server hostname.
- If you trust that the hostname is valid, you can disable the SSL certificate hostname verification by using the following procedure:

### Disabling the SSL certificate hostname verification

1. In **IBM Cognos Administration**, on the **Configuration** tab, click **Dispatchers and Services**.
2. Click the dispatcher name.
3. In the list of the dispatcher services, find the **QueryService** service, and click the **Set properties**  icon in the **Actions** column.
4. Click the **Settings** tab.
5. Click the associated **Edit** link to open **Advanced settings**.
6. In the displayed page, select the **Override the settings acquired from the parent entry** checkbox.
7. Create a setting called **qsPAEnableSSLHostnameVerification** and set its value to **false**.
8. Click **OK**.
9. Stop and restart the IBM Cognos Analytics services to apply the changes.

## Other administration problems

---

This section documents problems that you might encounter when administering IBM Cognos software.

### Restarting Servers After Solving Content Store Problems

If the content store becomes unavailable, after resolving the problem, you must stop and restart IBM Cognos services to resume processing.

### An Update or Delete Request Fails

When any property of an object changes, the version property associated with the object changes. If you try to update or delete an object, the request fails if the value of the version property changed after you retrieved the object from the data store.

For example, if two administrators read the properties of the same object at the same time, they both have the same version of the object. If they both try to update, the first update request succeeds. However, the second update request fails because the version of the object no longer matches the version retrieved from the data store.

If this happens when you submit an update request, you must read the data again to get the current version of the object and then resubmit your update request.

## Higher Logging Levels Negatively Affect Performance

All the IBM Cognos services send events to the log server, which directs messages to a log file. After an error or problem occurs, you can review the log messages to obtain clues as to what happened.

Log messages also provide the status of components and a high-level view of important events, such as successful completions and fatal errors

In the server administration tool, five levels of logging are available. They range from minimal, which logs the least amount of detail and is intended for less frequent events, to full, which logs more detail and is intended for more frequent events and detailed troubleshooting purposes.

Increasing the logging level may negatively affect the performance of IBM Cognos software. The higher the level of detail logged, the more resources that are used. If performance is slow, you can try lowering the logging levels.

To access the server administration tool, you must have execute permissions for the Administration secured function.

### Procedure

1. On the **Configuration** tab in **IBM Cognos Administration**, click **Dispatchers and Services**.
2. In the **Actions** column, click the set properties button for the dispatcher or configuration folder you want.
3. Click the **Settings** tab to view all the configuration settings.
4. In the **Value** column, click a new value for the following settings, each of which represents a logging category:
  - Audit logging level
  - Audit run-time usage logging level
  - Audit administration logging level
  - Audit other logging level

**Tip:** If you want to reset a configuration setting to its default value, select its check box and click **Reset to parent value**.

5. Click **OK**.

## Unable to Identify SAP BW Version and Corrections

You must use supported versions and patch levels of SAP BW, so you must be able to see a list of patches (correction notes) that have been applied.

For more information about supported versions, see the [IBM Cognos Analytics on Premises 12.0.x Supported Software Environments](https://www.ibm.com/support/pages/node/6966712) (https://www.ibm.com/support/pages/node/6966712).

To see a list of correction notes that have been applied, you can run one of two transactions in R/3: SE95, or SNOTE.

In all cases, you must be authorized to run these transactions. In some cases, you may need to run the transactions using the same account that was used to apply the correction notes.

### Procedure

1. In SAP R/3, type /SE95 in the command window.
2. Enter an asterisk (\*) in the Last Changed By field, to view all notes.
3. Select the type of modification in the Modifications tab.

## SBW-ERR-0020 Error When Running Reports Based on SAP BW Data Sources

Occasionally, when you run reports based on an SAP BW data source, the following error message may appear:

*Querying the SAP BW cube's failed. SAP error code: BAP-ERR-0002 A BAPI error has occurred in the function module BAPI\_MDDATASET\_GET\_AXIS\_DATA. &INCLUDE INCL\_INSTALLATION\_ERROR*

This message means that SAP BW has run out of resources.

In this situation, we recommend contacting your system administrator.

## Links to Referenced Content Objects are Broken Following Deployment

After you import a deployment archive to a new location, some links for objects associated with reports do not work.

When you import content objects which contain references to other objects that are not in the target environment, these references are removed. For example, if you deploy an archive containing reports based on a metadata package that is not in the deployment archive or the target environment, then the links will remain broken even if the referenced object is subsequently created.

To solve this problem, do one of the following:

- Reimport your deployment package after the target objects have been created. The objects will be automatically linked
- Manually reconnect the links to an object.

## Table or View Does not Exist for Sample Database

The schema property in each of the Framework Manager models is synchronized to run against the schemas defined in the sample databases.

If you change any of the database schemas, you receive an error connected to the Framework Manager model that says the table or view does not exist.

To solve the problem, open the model in Framework Manager and update the schema name and then re-publish all packages.

## CNC-ASV-0007 Error When Calling a Report Trigger From a Web Service Task

When calling a report trigger from a Web service task, the following error message may appear:

CNC-ASV-0007 An error occurred with the agent Web service task. The operation failed.  
org.apache.wsif.WSIFException: CloneNotSupportedException cloning context.

This problem is related to the replacement of your existing Java Runtime Environment (JRE) by the JRE used by IBM Cognos Analytics.

To avoid this problem, modify the bootstrap\_win32.xml file in the *installation\_location*\bin directory by adding the following line of code for the spawn element under `<process name="catalina">`:

```
<param condName="{java_vendor}" condValue="IBM">-Xss128m</param>
```

## CNC-SDS-0413 Error when executing a scheduled report

When executing a scheduled report, the user authentication fails with the following error message:

CNC-SDS-0413 There is a problem in executing the task. The user authentication failed. It may not be possible to rerun the task.

## About this task

The report fails because the credentials are invalid. Invalid credentials can occur when the user password has expired or been altered, or the user account is invalid. When credentials are invalid, the current user credentials do not match the credentials stored in the Content Store database. You can use a job and schedule monitor service (JSM) trace, previously known as scheduling and delivery service (SDS), to help trap the errors related to the scheduled reports.

If the schedule is using an invalid user account, login as a valid user, schedule the report using the valid account, and click Save. The schedule will now use the valid user account. If the credentials are invalid because they have expired or have been altered, you must renew the credentials.

## Procedure

1. In **My Preferences**, renew your credentials.
2. Test for the error.

You can do this by scheduling the reports to run or creating a trigger to run the reports.



---

## Chapter 4. Problems when authoring reports

IBM Cognos Analytics - Reporting can be used to create different types of reports, including lists, crosstab reports, charts, and user-designed reports.

You may encounter problems when authoring reports in Reporting.

### Problems Creating Reports

---

In IBM Cognos Analytics - Reporting you can create planned, professional reports.

The topics in this section document problems you might encounter when creating reports.

#### Chart Labels Overwrite One Another

In IBM Cognos Analytics - Reporting, if you define a chart and render it in HTML or PDF format using the default sizes, the axis labels of the chart might overwrite each other.

To avoid this problem, make the chart wider or taller by modifying the height and width properties of the chart or enable the **Allow skip** property.

#### Chart Shows Only Every Second Label

You create a report that includes a chart. The **Allow skip** property is set to false, but when you run the report, labels are skipped.

This can occur if there is not enough room for all labels and the properties **Allow 45° rotation**, **Allow 90° rotation**, and **Allow stagger** are also set to false. IBM Cognos Analytics has no options for making the labels fit, so it skips every second label.

The solution is to select either **Allow 45° rotation**, **Allow 90° rotation**, or **Allow stagger**.

#### Division by Zero Operation Appears Differently in Lists and Crosstabs

If you have a list that accesses a relational data source, a calculation containing a division by zero operation appears as a null value, such as an empty cell. In a crosstab, the division by zero operation appears as /0.

This happens when the query property **Avoid division by zero** is set to **Yes**, which is the default.

To have a consistent display of null values in lists and crosstabs, define an if-then-else statement in the expression in the crosstab cell that changes the value /0 to the value null.

#### Application error appears when upgrading a report

When upgrading a report, the following error appears if the report contains data items in the page layout that are not in a data container:

RSV-SRV-0040 An application error has occurred. Please contact your Administrator.

This error occurs when IBM Cognos Analytics cannot determine the query reference for a data item. Such data items are identified by a red circle with a white x icon.

To correct the error, drag the data items into a container. If the container is a list, we recommend that you drag the data items into the list page header or footer, or the overall header or footer. If you want to see the first row of the item on each page or in the overall report, drag the item to the list page header or overall header. If you want to see the item's last row on each page or in the overall report, drag the item to the list page footer or overall footer.

**Tip:** If a header or footer does not exist, create it.

## Nested List Report Containing a Data Item That is Grouped More Than Once Does Not Run After Upgrade

When you upgrade a nested list report that contains a data item that is grouped in both lists, the report does not run.


The following error occurs when the report is run against a dimensional data source and both lists are using the same query. This error does not occur if the report is run against a relational data source.

*OP-ERR-0199: The query is not supported. The dimensions on the edge are inconsistent. The dataItems from dimension="[Product line]" must be adjacent.*

For example, you have a list that contains the grouped items Product line and Product type and a nested list that contains the data items Year, Quarter, Product line, and Unit sale price. Year, Quarter, and Product line are grouped items in the nested list.

To resolve the issue, delete the data item that is grouped in both lists from the inner list.

### Procedure

1. Click anywhere in the report.
2. Click the **Show properties** icon , and In the **Properties** pane, click the **Select ancestor** icon and click the **List** link that represents the inner list.
3. Double-click the **Grouping & sorting** property.
4. In the **Groups** pane, select the data item that you want and press the Delete key.

## Subtotals in Grouped Lists

When using an IBM Cognos PowerCube that contains a ragged hierarchy, if you group on the first level in the hierarchy, subtotals may appear in the wrong place or show wrong values.

To resolve the issue, group on the second level.

## Relationships Not Maintained in a Report With Overlapping Set Levels

In a report, the relationship between nested or parallel member sets at overlapping levels in the same dimension may not always be maintained.

For example, a named set in the data source that contains members from both a Year and Month member is nested under Year, but is not properly grouped by year.

In another example, an error message such as this appears:

*OP-ERR-0201 Values cannot be computed correctly in the presence of multiple hierarchies ([Product].[B1], [Product].[Product]) that each have a level based on the same attribute (Product).*

This problem occurs in the following scenarios involving non-measure data items X and Y, which overlap in the same dimension:

- X and Y together as ungrouped report details
- Y nested under X
- Y appended as an attribute of a group based on X

When using named sets, or sets that cover more than one level of a hierarchy, do not use sets from the same dimension in more than one place in the same report. They should appear on only one level of one edge.

## Creating Sections on Reports That Access SAP BW Data Sources

SAP BW data sources may have problems with sections in reports under different circumstances:

If a section in a report uses the lowest-level query item in a ragged hierarchy, such as the children of the not assigned node, the following BAPI error may appear:

*BAPI error occurred in function module BAPI\_MDDATASET\_SELECT\_DATA. Value <valueName> for characteristic <cubeName> unknown*

For more information about working with ragged or unbalanced hierarchies, see the *IBM Cognos Analytics - Reporting User Guide*.

### Lowest-level Query Item in a Ragged Hierarchy

The solution is to remove the section from the lowest-level query item.

### Several Multicubes with SAP Variables

The solution is to use one SAP multicube when creating sections in reports.

## Error Characters (--) Appear in Reports

When you run a report, you see two dash (--) characters in your report instead of values.

These characters may appear if you use an OLAP data sources other than PowerCube and Microsoft SQL Server 2005 Analysis Services (SSAS), and you apply aggregation to calculations and measures that use rollups other than Sum (Total), Maximum, Minimum, First, Last, and Count.

All other types of rollup either fail or return error cells, which typically display as two dash characters (--).

This problem occurs in, but is not limited to, the following:

- footers
- aggregate function
- summary filters and detail filters that use a summary
- detail, summary, and context filters that select more than one member of a hierarchy that is used elsewhere on the report

If you are working with a SSAS 2005 data source, these characters may also appear in summary cells if you use an OR filter in the summary. To avoid this problem, do not use OR filters in summaries.

## Function Unreliable with Sets

If you create an expression that uses the descendants function with sets, you may encounter unpredictable results. Some expected members may be missing or may have blank captions or labels.

This problem occurs if the descendants function uses a set as its first parameter instead of a single member and if the descendants function is nested under another data item from the same hierarchy.

To avoid this problem, replace the first parameter in the descendants function with the function `currentmember(H)`, where H is the hierarchy of the desired set and under which the expression is nested. For example, use `descendants(currentmember(H))`.

## Columns, Rows, or Data Disappear With SSAS 2005 Cubes

Microsoft SQL Server 2005 Analysis Services (SSAS) has a feature called AutoExists that removes tuples that have no facts at the intersection of two hierarchies of the same dimension.

Columns, rows, or data can disappear if you set the default member of a hierarchy to a member that does not exist with every other member in the dimension. To avoid this problem, change the default member that caused the disappearance to a member that exists with all other members in the dimension.

Columns, rows, or data can also disappear if members are specified that result in one or more non-existent tuples. There is currently no workaround for this scenario. For more information, see Microsoft Knowledge Base article #944527 at <http://support.microsoft.com>.

You may also encounter unexpected results if the default member of a hierarchy is a member that doesn't also exist in all other hierarchies in the dimension, and if you query members from different hierarchies in the same dimension.

For example a crosstab includes the following (using the Adventure Works cube):

- Rows: Generate([Adventure\_Works].[Account].[Accounts],set([Balance Sheet],[Units])) nested with children([Adventure\_Works].[Department].[Departments]->:[YK].[[Department]].[Departments]].&[1]])
- Column: [Adventure\_Works].[Account].[Account Number].[Account Number]
- Measure: [Adventure\_Works].[Measures].[Amount]

You run the report and notice that the query renders with some blanks cells. You then apply the simple detail filter [Amount]>1 and run the report. Only row labels are displayed and all data and columns are missing.

In the Adventure Works cube, the [Account].[Accounts] attribute has a default member set to [Net Income]. When evaluating the GENERATE set expression, SSAS looks in the entire cube space and looks at all coordinates for the [Account] dimension. These coordinates include both [Account].[Account Type].&[] and [Account].[Accounts].[Net Income]. Because these two coordinates don't exist within the same hierarchy, SSAS returns an empty set.

To avoid this problem the SSAS administrator must set the default member in the cube to a member that exists in all other hierarchies.

## Unexpected Cell Formatting in Reports

When using data sources other than OLAP and you run a report, cell formatting may not appear as expected. For example, some cells may appear very small. This could be caused by null values returned from the query.

To specify what appears for a data container when there are null values in a query, refer to the *IBM Cognos Analytics - Reporting User Guide*.

You may also see an Invalid Dates message in some cells. This issue is specific to Transformer and occurs when cubes are constructed with unknown date values. For more information, see the *IBM Cognos Transformer User Guide*.

## Report Differences Between TM1 Executive Viewer and IBM Cognos Analytics with TM1 Data Sources

When using an IBM Cognos TM1® data source, comparable reports created in IBM Cognos Analytics and in TM1 Executive Viewer may contain different cell values. This occurs because the TM1 Executive Viewer product uses an algorithm for selecting default members for non-projected dimensions that differs slightly from traditional OLAP clients.

To avoid this problem, when filtering your reports in IBM Cognos Analytics, use context filters that match the default selections shown in the Executive Viewer user interface. This ensures that the cell values in IBM Cognos Analytics match the values in Executive Viewer.

## Order of Metadata Tree Differs for TM1 Data Sources

When using an IBM Cognos TM1 data source, the order of members in the metadata tree of the **Source** tab in IBM Cognos Analytics may differ from the order shown in TM1 Architect.

By default, TM1 Architect renders members of hierarchies using a slightly different algorithm than does IBM Cognos Analytics. IBM Cognos Analytics automatically renders member metadata from TM1 data sources in hierarchical order.

From within TM1 Architect, if you want to see how IBM Cognos Analytics will render a hierarchy, click the **Hierarchy Sort** button.

## MSR-PD-0012 error when importing external data

When you try to import an external data file, you receive an MSR-PD-0012 error.

*MSR-PD-0012: Unable to upload the specified external data file. It exceeds the permitted file size of "0(KB)", as specified by your system administrator.*

This error occurs when the size of the file you are trying to import is greater than the value specified for the **Maximum external data file size (KB)** governor in the Framework Manager model.

To resolve the issue, the modeler must update the governor, save the model, and republish the package.

## MSR-PD-0013 error when importing external data

When you try to import an external data file, you receive an MSR-PD-0013 error.

*MSR-PD-0013: Unable to upload the specified external data file. It exceeds the permitted maximum number of rows "0", as specified by your system administrator.*

This error occurs when the number of lines in the file you are trying to import is greater than the value specified for the **Maximum external data row count** governor in the Framework Manager model.

To resolve the issue, the modeler must update the governor, save the model, and republish the package.

## Problems Calculating Data

---

The topics in this section document problems you may encounter when using expressions to calculate data or when aggregating data in your reports.

## Summaries in Query Calculations Include Nulls with SAP BW Data Sources

When using an SAP BW data source in IBM Cognos Analytics - Reporting, null values in the database are returned in the result set and the count summary function includes the empty cells in the following scenarios:

- A query calculation includes an arithmetic calculation where one or more NULL operands and an aggregation is performed on the calculation.
- The result of a query calculation is a constant, such as `current_time` and `current_date`.

The count summary function should normally exclude null values.

To avoid this problem, for the first scenario, ensure that both operands do not return null values. For example, the original expression is [num1]+[num2]. Instead, use the following expression:

```
if ([num1] is null) then ( 0 ) else ([num1])
```

```
if ([num2] is null) then ( 0 ) else ([num2])
```

There is no workaround for the second scenario.

## Null Results for Calculations Using SAP BW Data Sources

When using a SAP BW data source, the expression you use in your calculation is evaluated as a null value if your expression contains a null item. For example, in the calculation some\_expression = result, the result is null if a row or column that the expression references includes a null value.

To avoid obtaining null values as the result of your calculations, suppress null values before you create the calculation.

## Unexpected Summary Values in Nested Sets

If a report contains nested sets, summaries other than the inner set summaries may contain unexpected values. For example, you insert a summary in a crosstab that contains a set with years in the rows.

		Revenue
2012		1,495,891,100.9
2013		1,117,336,274.07
Total		2,613,227,374.97

Figure 1. Example of revenue numbers for the years 2012 and 2013

You then nest a product line set within years.

		Revenue
2012	Camping Equipment	500,382,422.83
	Golf Equipment	230,110,270.55
2013	Camping Equipment	352,910,329.97
	Golf Equipment	174,740,819.29
Total		2,613,227,374.97

Figure 2. Example of revenue numbers for the listed products for the years 2012 and 2013

Notice that the summary value does not change to represent the total of the new values. This occurs because the within set aggregation used with dimensional packages does not take into account sets that are nested below the set that is summarized.

To show the correct summary values, if the inner and outer sets do not belong to the same dimension, you can nest a copy of the inner summary item under the outer summary item, as follows.

		Revenue
2012	Camping Equipment	500,382,422.83
	Golf Equipment	230,110,270.55
	Total	730,492,693.38
2013	Camping Equipment	352,910,329.97
	Golf Equipment	174,740,819.29
	Total	527,651,149.26
Total	Total	1,258,143,842.64

Figure 3. Example of the combined aggregate set for the years 2012 and 2013

## Incorrect Results in Summaries When Using OLAP Data Sources

When using an OLAP data source, summaries that use for clauses give incorrect results.

This occurs because for clauses require access to the detail rows of the fact table. OLAP data sources do not have detail rows.

For example, this report uses a dimensionally-modeled relational (DMR) data source and contains the following summaries:

- mx: maximum ([Revenue] for [Year (ship date)])
- mx2: maximum (Aggregate([Revenue]) for [Year (ship date)])

Year	Quarter	Revenue	mx	mx2
2010	Q1 2010	221,704,705.31	252,408.9	235,750,316.25
	Q2 2010	222,143,384.57	252,408.9	235,750,316.25
	Q3 2010	235,750,316.25	252,408.9	235,750,316.25
	Q4 2010	234,754,397.59	252,408.9	235,750,316.25
2010 - Summary		914,352,803.72		
2011	Q1 2011	293,228,460.53	292,402.7	306,706,702.72
	Q2 2011	278,180,759.96	292,402.7	306,706,702.72
	Q3 2011	281,079,666.95	292,402.7	306,706,702.72
	Q4 2011	306,706,702.72	292,402.7	306,706,702.72
2011 - Summary		1,159,195,590.16		
2012	Q1 2012	344,124,267.07	363,575.08	391,874,462.51
	Q2 2012	391,874,462.51	363,575.08	391,874,462.51
	Q3 2012	378,118,012.54	363,575.08	391,874,462.51
	Q4 2012	381,774,358.78	363,575.08	391,874,462.51
2012 - Summary		1,495,891,100.9		
2013	Q1 2013	471,624,367.69	349,132.3	479,269,923.82
	Q2 2013	479,269,923.82	349,132.3	479,269,923.82
	Q3 2013	166,441,982.56	349,132.3	479,269,923.82
2013 - Summary		1,117,336,274.07		
Overall - Summary		4,686,775,768.85		

Figure 4. Example list report that uses a dimensionally-modeled relational data source and revenue for four years

Notice that the mx and mx2 values are different, where mx2 is based on visible data, but mx is not. This result is correct.

The following report uses an OLAP data source and contains the same summaries.

Year	Quarter	Revenue	mx	mx2
2010	2010 Q 1	221,704,705.31	235,750,316.25	235,750,316.25
	2010 Q 2	222,143,384.57	235,750,316.25	235,750,316.25
	2010 Q 3	235,750,316.25	235,750,316.25	235,750,316.25
	2010 Q 4	234,754,397.59	235,750,316.25	235,750,316.25
2010 - Summary		914,352,803.72		
2011	2011 Q 1	293,228,460.53	306,706,702.72	306,706,702.72
	2011 Q 2	278,180,759.96	306,706,702.72	306,706,702.72
	2011 Q 3	281,079,666.95	306,706,702.72	306,706,702.72
	2011 Q 4	306,706,702.72	306,706,702.72	306,706,702.72
2011 - Summary		1,159,195,590.16		
2012	2012 Q 1	344,124,267.07	391,874,462.51	391,874,462.51
	2012 Q 2	391,874,462.51	391,874,462.51	391,874,462.51
	2012 Q 3	378,118,012.54	391,874,462.51	391,874,462.51
	2012 Q 4	381,774,358.78	391,874,462.51	391,874,462.51
2012 - Summary		1,495,891,100.90		
2013	2013 Q 1	471,624,367.69	479,269,923.82	479,269,923.82
	2013 Q 2	479,269,923.82	479,269,923.82	479,269,923.82
	2013 Q 3	166,441,982.56	479,269,923.82	479,269,923.82
	2013 Q 4		479,269,923.82	479,269,923.82
2013 - Summary		1,117,336,274.07		
Overall - Summary		4,686,775,768.85		

Figure 5. Example list report that uses a dimensional data source and revenue for four years

In the example report, mx and mx2 values are now the same. Both summaries are based on visible data. The mx value is incorrect.

Incorrect results also appear for footer summaries.

To avoid this problem, when using OLAP data sources, ensure that the parameter that precedes the `for` clause is an aggregate function.

## Incorrect Results with IBM Cognos PowerCubes and Time Measures

If a report uses an IBM Cognos PowerCube data source and a combination of data items, you will encounter incorrect results.

The following combination of data items in a report that uses an IBM Cognos PowerCube data source will give incorrect results.

- a measure with a **Time State Rollup** set to **Average** or **Weighted Average**
- an aggregate ( *members from time dimension* ) expression
- an intersection with a member in a relative time hierarchy

To avoid incorrect results, do not use this combination in your reports.



## CQM and DQM return different default results for aggregate rules

If you set the Aggregation Rule for a measure to Last for a time dimension, the default results in Compatible Query Mode (CQM) are different than those in Dynamic Query Mode (DQM).

In DQM, if you focus the report on a member whose last measure is in a time period earlier than the last time period actually found in the time dimension, rather than show the value for that earlier time period, the record is dropped altogether.

For example, if a member from a Scenario dimension called Actual has a value last recorded in Oct of 2021 and you report on the Year level of 2021, the measure value for Oct should appear under 2021 for Actual. Instead, however, the record is dropped since the last period in the data is Dec. 2021, which is what is used in the filter in the SQL. CQM does not drop this record by default.

### Solution

To ensure that DQM returns the same default results as CQM, follow these steps:

1. Go to *installation\_location\configuration\xqe*.
2. Open the file *dmr.properties* in a text editor.
3. Change the line `contextDependentIgnoreNullsAggregateRule=false` to `contextDependentIgnoreNullsAggregateRule=true`.
4. Change the line `enableDMRcubeReuse=true` to `enableDMRcubeReuse=false`.

**Note:** If you are setting your query properties in Reporting to not use the local cache, then the `enableDMRcubeReuse` setting does not need to be changed because the report's query property will override the *dmr.properties* setting.

5. Save your changes to *dmr.properties*.
6. Restart the Query Service.

## Unexplained Discrepancies in Number Calculations

You might find unexplained discrepancies in number calculations due to round-off errors.

For example:

- You run regression tests and find differences in numbers. They are different only because of the rounding off of decimal places.
- You choose not display zeros in reports, but the zeros are displayed anyway because there are decimal places (0.00000000000000426, for example) that are rounded off to zero in reports.

Round-off problems are not specific to IBM Cognos software. They can occur in any environment where rounding off occurs.

### Binary Round-Off Errors

Discrepancies in calculations might occur due to binary round-off errors. For example, if the number 1.1 is represented as a binary floating point number and your report format includes a large number of decimal places, the number 1.1 might actually be something like 1.099999999999997.

If your report is formatted to use only one decimal point, decimal round-off takes place, compensating for the binary round-off. So the number appears to be 1.1 when it is really 1.099999999999997. When the number is used in calculations, you might get round-off errors. For example, Microsoft Excel calculations use binary numbers (without rounding off decimal places) but formatting in reports shows rounded off decimal places, which can create small discrepancies.

### Division Round-Off Errors

Calculations that involve division typically incur round-off errors, regardless of how the numbers are represented. Examples of such calculations are Average and Percent of Base.

## Design Guidelines to Minimize Round-Off Effect

The best solution is to change the underlying database schema or cube model but that may not always be possible. Another solution is to minimize the round-off effect by following these guidelines when authoring reports and creating models in IBM Cognos Framework Manager and external OLAP cubes:

- Avoid storing data in floating point format whenever possible. This is especially true for currency values, which should be stored as either fixed-point decimals or as integers with a scale value such as 2.

For example, in a cube, the Revenue for Camping Equipment in 2012 is \$20,471,328.88. If revenue details are stored as floating point numbers, round-off errors might occur when revenue is calculated.

The round up errors might have slight differences, depending on the order of calculation. If revenue for Products is calculated first and revenue for Time is calculated second, you might get a different round-off error than if Time is calculated first and Products is calculated second.

Total revenue might be calculated as the number shown in the previous example. Or there might be slight discrepancies, for example, \$20,471,328.8800001 as opposed to \$20,471,328.88. The internal number might be slightly different than what is displayed. The number might even be for different runs of the same report, depending on the order that the OLAP engine uses for calculation.

- In reports, avoid division whenever possible. When division is unavoidable, try to do it as late as possible in the calculation process. For example, instead of `Total([Revenue]/1000)`, use `Total([Revenue])/1000`.
- When doing comparisons, add a margin to allow for round-off. For example, you may want `[Profit %]` to be a fractional value formatted as a percentage with no decimals. However, the filter `[Profit %]<>0` (or `[Profit %] NOT BETWEEN 0 and 0`) rejects zero values and may still return values that appear to be 0% after formatting.

To avoid this, filter in one of these two ways:

- `[Profit %] NOT BETWEEN -0.005 and 0.005`
- `([Profit %] < - 0.005) OR ([Profit %]> 0.005)`

Note that 0.005 is equivalent to 0.5%, which displays as either 0% or 1%, depending on floating point precision losses.

In some cases, you may prefer control round-off errors by rounding values explicitly. For example, instead of `[Profit %]`, use `round([Profit %],2)`.

- Recalculate numbers every time instead of reusing calculations that might contain rounded off decimals.

There might be additional considerations for Microsoft Analysis Services 2005/2008, especially when comparing report results from different runs. Refer to Microsoft documentation for more information.

## Error when filtering on a \_make\_timestamp column

You cannot filter on a `_make_timestamp` column. If you do that, the following error messages appear:

```
UDA-SQL-0114 The cursor supplied to the operation "sqlOpenResult" is inactive
```

```
UDA-SQL-0206 The OLEDB driver returned the following value:  
HRESULT= DB_E_CANTCONVERTVALUE
```

```
RSV-SRV-0025 Unable to execute this request
```

The solution is to apply the filter after aggregation, and not before.

## RSV-VAL-0010 Failed to load the report specification

This error message occurs in Cognos Analytics Reporting when validating a report during the compatible (CQM) to dynamic query mode (DQM) migration, or when developing a new report. The report is based on an OLAP data source.

Here is the full text of the message:

RSV-VAL-0010 Failed to load the report specification. XQE-PLN-0043 The query is not supported. The value summary function 'total' in the data item 'DataItem1' is based on detail values and the function does not match the pre-aggregated values in the OLAP data source.

The error message informs you that the summary cannot produce the same result as it would against an equivalent relational data source that has access to the transactional-level fact details. Consequently, the summary result can be incorrect.

The following, similar error message might occur in CQM for the same report:

OP-ERR-0273 The value summary function is specified for a scope that extends below the level of detail of the report.

While the report might run in CQM, DQM enforces a much stricter set of design rules.

## Resolving the problem

For OLAP data sources, summaries are computed accurately only if the summary function is aggregate. To resolve the problem, replace the `total()` function with the `aggregate()` function.

For example, the following expression:

```
member( total([Measure Set]), 'test','test', hierarchy([Data Set] ))
```

should be modified in the following way:

```
member( aggregate([Measure Set]), 'test','test', hierarchy([Data Set] ))
```

## Problems Distributing Reports

---

The topics in this section document problems you may encounter when distributing reports.

### A Report Link in an Email Notification Does Not Work

If a report link in an email notification does not work, the Gateway URI may not be configured correctly.

You must change the host name portion of the Gateway URI from `localhost` to either the IP address of the computer or the computer name. If the URL in the email contains `localhost`, remote users cannot open the report.

### Report Contains No Data

In IBM Cognos Event Studio, if an agent running against a dimensionally-modeled data source passes values to a report based upon a relational source, the report may contain no data.

When the source is dimensional, the agent passes member unique names (MUNs) to the target report. If the target report is based upon the same dimensional source, the report runs correctly. However, if the report is based upon a relational source, the agent must pass values (not MUNs) for the report to run correctly.

#### Procedure

1. Drag the data item from the **Insertable Objects** tree to the **Value** field in the report task page.
2. Click in the field.
3. From the **Insert** menu, click **Caption**.

### Hyperlinks in Email Messages Are Stripped Out When the Agent is Saved

In Event Studio, hyperlinks are stripped out when the agent is saved. The administrator must allow email links to ensure that the links remain in emails created by agents.

## Procedure

1. To allow links in an email, do the following:

- Add the following line to templates/ps/system.xml: <param name="allow-email-links">true</param>
- Restart the server.

**Note:** Adding this setting does not fix existing agents.

2. To insert a link in an email, do the following:

- Highlight some text in the email.
- Press Ctrl-K.
- Enter a URL into the box that appears.

## Errors When Running Web Service Tasks

When running a Web service task, you might encounter errors.

You must modify one the following files to add the ThreadStackSize (Xss) parameter:

- bootstrap\_win32.xml in the bin folder for a 32-bit installation
- bootstrap\_win64.xml in the bin64 folder for a 64-bit installation

Adding this parameter prevents these errors:

CNC-ASV-0001 The Following Agent Service General Error Occurred: java.lang.StackOverflowError

CNC-ASV-0007 An error occurred with the agent Web service task.

## Procedure

1. Open the appropriate version of the *install\_location*\bin\bootstrap\_win.xml file in an XML editor.
2. Add the following text for the parameter (shown in bold) exactly as shown here:

```
<...  
<condValue="Sun">-XX:NewSize=${dispatcherMaxMemoryBy4}m</param>  
  <param condName="${java_vendor}" condValue="Sun">-XX  
    <process name="catalina"> ...<param condName="${java_vendor}"  
      condValue="Sun">-XX:MaxPermSize=512m</param><  
      param condName="${java_vendor}"  
      condValue="IBM">-Xss512m</param>
```

The maximum stack size (Xss) parameter is set to 512 MB to avoid an overflow exception error.

## Cannot Call the SDK from Event Studio

Even though IBM Cognos Event Studio has a feature to insert a web service as a task, it is not possible to call the IBM Cognos SDK web service. Due to the complexity of the SDK and complex data types and options, the web service feature in Event Studio does not handle the IBM Cognos SDK.

The exception to this rule is the trigger command that can be called from Event Studio.

## Chapter 5. Problems when running, viewing, and printing reports

You may encounter problems when running, viewing, or printing reports.

### Problems when running reports

The topics in this section document problems you may encounter when running reports.

#### Summaries in a report do not correspond to the visible members

If a crosstab or chart created in IBM Cognos Analytics - Reporting using a dimensional data source has a context-dependent set function such as `filter` or `topCount` on an edge, summaries do not correspond to the visible members.

This problem occurs because a summary that has the query property **Use set aggregation** set to **Yes**, which produces an expression that contains the `within` set clause, uses a set that is dependent on the members that it intersects with on the opposite edge. For example, the following crosstab has the top three products returned as columns. The expression used to generate the columns is

`topCount ([Product],3,[Return quantity])`

where `[Product]` is the level.

Return quantity	BugShield Lotion	BugShield Extreme	Sun Shelter 30	Total	Minimum
Americas	25,219	19,870	13,814	62,392	17,303
Asia Pacific	22,822	19,171	6,389	54,758	12,765
Northern Europe	8,325	14,634	4,065	32,936	8,325
Central Europe	17,627	13,854	14,089	45,570	13,854
Southern Europe	7,196	4,726	5,401	20,220	5,790
Total	81,189	72,255	43,758	215,876	58,037
Minimum	7,196	4,726	4,065	20,220	5,790

Figure 6. A crosstab showing that the summary values for all rows do not correspond to the visible members.

The summary values for **Total** and **Minimum** for all rows except **Central Europe** do not correspond to the member values in the crosstab. This means that the top three products returned in all regions except for Central Europe are not Bug Shield Lotion, Bug Shield Extreme, and Sun Shelter 30. Note that the summary values for **Total** and **Minimum** for all columns do correspond to the visible member values. That is because those summary values represent the total and minimum quantities returned for those three products in each region.

You can see what the top three products returned in each region are by dragging the columns to the right of the rows.

Americas	BugShield Lotion	25,219
	BugShield Extreme	19,870
	TrailChef Water Bag	17,303
	Minimum	17,303
	Total	62,392
Asia Pacific	BugShield Lotion	22,822
	BugShield Extreme	19,171
	Single Edge	12,765
	Minimum	12,765
	Total	54,758
Northern Europe	BugShield Extreme	14,634
	Star Peg	9,977
	BugShield Lotion	8,325
	Minimum	8,325
	Total	32,936
Central Europe	BugShield Lotion	17,627
	Sun Shelter 30	14,089
	BugShield Extreme	13,854
	Minimum	13,854
	Total	45,570

Figure 7. A single-edge crosstab showing the Total Returned Products and Minimum Returned Products for each region

To obtain summary values that reflect the visible members, modify the expression of the data item containing the context-dependent set function so that it includes a tuple that is locked to the default member of every hierarchy that appears on the opposite edge. For this example, modify the expression to the following:

`topCount ([Product],3,tuple([Return quantity], defaultMember([Retailer site])))`

where [Product] is the level and [Retailer site] is the hierarchy.

When you run the report, all summary values reflect the visible members in the crosstab.

Return quantity	BugShield Lotion	BugShield Extreme	Sun Shelter 30	Total	Minimum
Americas	25,219	19,870	13,814	58,903	13,814
Asia Pacific	22,822	19,171	6,389	48,382	6,389
Northern Europe	8,325	14,634	4,065	27,024	4,065
Central Europe	17,627	13,854	14,089	45,570	13,854
Southern Europe	7,196	4,726	5,401	17,323	4,726
Total	81,189	72,255	43,758	197,202	42,848
Minimum	7,196	4,726	4,065	17,323	4,065

Figure 8. A crosstab showing the return quantity of products in different regions of the world

## Crosstab Shows Percentage But Chart Shows Values

When the crosstab calculates the percentage of the total for an item, the chart does not show the values as a percentage.

## DPR-ERR-2082 The Complete Error Has Been Logged by CAF With SecureErrorID

You cannot run a report.

The following error messages appear:

*DPR-ERR-2082 An error has occurred. Please contact your administrator. The complete error has been logged by CAF with SecureErrorID: timestamp-#number.*

*RSV-DR-0002 Unable to execute this request.*

These error messages do not indicate an IBM Cognos Application Firewall problem.

You can view a more detailed error message, in the c8server.log file that resides in the logs directory on the IBM Cognos Analytics server.

### Procedure

1. Open the cogaudit.log file in the *install\_location\uninstall\logs* directory on the IBM Cognos Analytics server.
2. Search for SecureError or the timestamp-error number combination shown in the error message, such as 2004-06-29-15:15:03.796-#8.
3. The error message is under the SecureErrorID heading.

## Data source not found in Content Manager

You cannot retrieve data from the selected database when running a report.

Depending on the Cognos Analytics version and the report type (classic report or interactive report) either the toast message Data source *data\_source\_name* was not found in Content Manager or the error message QE-DEF-0288 Unable to find the database... is displayed.

If this message is not displayed when you are logged on as an administrator, ensure that the affected users have permissions for the sign-on associated with the database. If this message is always displayed, the data source is not created. Create a data source with the name that is mentioned in the message.

## Overflow Error Occurs When a Value in a Crosstab Is More Than 19 Characters

In a crosstab report, values support a maximum of 19 characters, including the decimal point. If a value exceeds 19 digits, an overflow error occurs. By default, the decimal precision is set to 7 digits, which restricts the number of integers to 11 digits.

To use more than 11 integers, you must edit the qfs\_config.xml file in the *install\_location\configuration* directory.

## IBM Cognos Analytics Runs Out of TEMP Space

By default, IBM Cognos Analytics stores temporary files in the *install\_location/temp* directory. The amount of space required by the temporary files directory depends upon several factors, including the number and type of reports created.

The following error message indicates that the temporary files directory ran out of space:

*QE-DEF-0177 An error occurred while performing operation 'sqlOpenResult'.*

*UDA-SQL-0114 The cursor supplied to the operation "sqlOpenResult" is inactive.*

*UDA-TBL-0004 There was a Write error while processing a temporary file.*

If this error occurs, ensure that the disk on which the temporary files directory is located has adequate space. You should also periodically delete unwanted files from this directory.

## A Report Does Not Run as Expected

A report may not run as expected if the model contains errors or the wrong governor settings.

### Procedure

1. Open the model in Framework Manager.
2. Ensure governors are set to **disallow**.
3. In the diagram view, ensure that there are no cross-join errors or ambiguous joins.
4. Check the package for a missing query subject.
5. Run the **Verify Model** function, and correct any errors detected.

## Scheduled Reports Fail

You schedule reports that previously ran successfully, but now fail.

The following error message appears when the reports fail:

`CAM.AAA Error authenticating user`

This may happen because a user changed a password. IBM Cognos Analytics uses a copy of the user ID and password to run the scheduled report.

The solution is for the user to renew their credentials.

### Procedure

From **My Preferences**, renew your credentials.

This option is not available to users from an IBM Cognos Series 7 namespace.

## The Table or View Was Not Found in the Dictionary

When you run a report, the following error message appears:

*The table or view "xxx" was not found in the dictionary.*

This may occur if permissions were not properly set.

Ensure that the user defined in the data source has SELECT privileges for the affected table.

## Unable to Select Multiple Report Formats When Running a Report

When running a report with options, you cannot select multiple formats when the delivery option is to view the report.

Before selecting multiple formats on the **Run with advanced options** page, you must first change the Delivery option to Save the report, print it, or send an e-mail.

## A report does not run because of missing items

You attempt to run a report and a message indicates that one or more items are missing or changed.

Each missing item is listed by its MUN (member unique name). The MUN includes the complete path within the hierarchy for the item. When you place your cursor on an item in the **Source** tab, the MUN



for that item is displayed in a tooltip. This situation may occur if members have been removed from or changed in the data source. It may also occur when you attempt to run a report that uses items to which you do not have access. For example, an administrator may create an analysis that includes items that you do not have the correct permission to access.

The solution is to find a suitable replacement in the **Source** tab, and drag it to the work area. The report or analysis will then run.

## Cannot View Burst Report

When you burst a report, each burst output is sent to the associated list of recipients.

If a list of recipients contains invalid entries, the following occurs:

- The burst output is not saved to IBM Cognos Content Manager.

Consequently, you cannot view the burst output.

- If you choose to send the output by email, only valid recipients will receive an email. Although the output is sent as an attachment if you select the **Attach the report** check box, no link is generated if you select the **Include a link to the report** check box.
- The following error message appears in the run history for the report, where parameter 1 is the burst key, parameter 2 is the list of recipients, and parameter 3 contains the error messages returned by Content Manager:

*An error occurred while saving the output for the burst instance <param type="string" index="1"/> with the recipients (<param type="string" index="2"/>). Here are the details: <param type="string" index="3"/>*

**Note:** The list of recipients includes both the valid and invalid recipients.

For example, a report is set up to burst on Country or Region, and the recipients are managers. Running the report produces the following countries and regions and recipients:

- Canada: John, Mary
- US: Peter, Frank
- France: Danielle, Maryse

Frank is an invalid recipient. The burst outputs for Canada and France are saved to Content Manager, but not the U.S. output. If you choose to send an e-mail to each recipient and you selected the **Include a link to the report** check box, the e-mail to Peter will not contain a link to the output for US. The error message that is generated will contain Peter and Frank as values for parameter 2 with no indication as to which is invalid.

### Procedure

1. View the error message in the run history for the report.
2. From the list of recipients, determine which recipients are invalid.

You may need to consult with your administrator to find out which recipients are invalid.

3. Correct or remove the invalid recipients.

Correcting or removing invalid recipients will depend on how the list of recipients was defined, such as through a calculated field or a burst table.

4. Run the report again.

## Recursive evaluation error

You run a report and encounter the following error.

```
PCA-ERR-0057 Recursive evaluation has exceeded limit. Calculated member trace:  
COG_OQP_USR_Aggregate(Retailer Type): COG_OQP_INT_m2: COG_OQP_INT_m1:  
COG_OQP_USR_Aggregate(Retailer Type): COG_OQP_INT_m2: COG_OQP_INT_m1:  
COG_OQP_USR_Aggregate(Retailer Type): COG_OQP_INT_m2: COG_OQP_INT_m1:  
COG_OQP_USR_Aggregate(Retailer Type): COG_OQP_INT_m2: COG_OQP_INT_m1
```

You may encounter this error when two or more data items form a recursive evaluation. For example, in this error, the calculation of Aggregate(Retailer Type) is dependent on a column expression while at the same time the column expression is dependent on Aggregate(Retailer Type). Therefore, the cyclic relationship cannot be resolved.

To avoid this problem, ensure that calculations do not have cyclic relationships.

## Arithmetic Overflow Error When Running a Report in PDF Format

If you use a Microsoft SQL Server 2005 data source and your report includes aggregations, you may encounter the following error when you run your report in PDF format:

*RQP-DEF-0177 An error occurred while performing operation 'sqlOpenResult' status='-28' UDA-SQL-0114 The cursor supplied to the operation "sqlOpenResult" is inactive. UDA-SQL-0564 [Microsoft OLE DB Provider for SQL Server] Arithmetic overflow error converting expression to data type int. (SQLSTATE=22003, SQLERRORCODE=8115)*

This error occurs because the action is performed in the database, and the database data type is too small.

To avoid this problem, increase the size of the the database data type.

## RQP-DEF-0177 An error occurred while performing operation 'sqlPrepareWithOptions' status='-69' UDA-SQL-0043 Error

You cannot run a report in IBM Cognos Analytics - Reporting, and the following error messages appear.

"RQP-DEF-0177 An error occurred while performing operation 'sqlPrepareWithOptions' status='-69' UDA-SQL-0043 The underlying database detected an error during processing the SQL request.[NCR][ODBC Teradata Driver][Teradata Database] Partial string matching requires character operands".

These error messages do not indicate an IBM Cognos Application Firewall problem.

There is a problem with your data source not converting numeric data items. Ask your administrator to consult the topic *Enable Conversion of Numeric Search Keys to Strings in Queries* in the *IBM Cognos Analytics Administration and Security Guide*.

## PCA-ERR-0087 error when you run a large report

You run a large report and you receive a PCA-ERR-0087 error that indicates that the report exceeds the maximum number of tuples allowed.

*PCA-ERR-0087 The "crossJoinSet" operator is not applicable. The limit on the number of tuples per edge has been exceeded (<value>).*

This error appears when there is an item in a query that has no relationship to the rest of the data or does not make sense in the query.

To resolve the problem, review the query for unrelated items. If an item is found, redesign the query or apply a filter on the item to reduce the number of results returned.

If you still receive the error, ask your administrator to modify the maximum number of tuples setting in IBM Cognos Analytics. The setting is an XML attribute named maxTuplesPerEdge. For more information, see the *IBM Cognos Analytics Administration and Security Guide*.

## Differences in the appearance of charts that are run in different formats or on different operating systems

IBM Cognos Analytics - Reporting charts can appear differently when reports are run in different formats or on different operating systems. For example, donut and pie charts can appear smaller in reports that are run on the Linux on System z® operating system compared to the Windows operating system.

The differences in appearance occur only with Cognos Analytics - Reporting default charts. Cognos Analytics - Reporting legacy charts are not affected. When default charts are rendered in HTML or PDF, the following font-related problems might occur.

- The font that is used in HTML output is different than the font used in PDF output.
- Some chart items appear misaligned. For example, a pie chart might show smaller pies in PDF output than in HTML output.
- The font that is used in the chart is different from the expected font.
- The font that is used in the chart is different when you run the chart in different operating systems.

There are two possible causes to the font-related problems.

- The Java Runtime Environment (JRE) used by IBM Cognos Analytics did not find the font that is specified in the chart, and substituted the font with a different font.
- An unknown default font is specified.

To resolve the problem, ask your administrator to configure JRE to find the installed fonts on the Cognos Analytics server. There are two ways that you can configure JRE to find the installed fonts:

- Copy the installed fonts to the `jre/lib/fonts` folder.

For example, to use the Cognos Analytics default font Andale WT, copy `Andalewt.ttf` from the `install_location/bin/fonts` folder to `jre/lib/fonts`.

- Configure the JRE font search path to point to the location where the fonts are installed.

On AIX, set the shell environment variable `JAVA_FONTS=<list of directories>`

**Tip:** Setting this variable is equivalent to setting the properties `java.awt.fonts` and `sun.java2d.fontpath`.

The default fonts configuration in your Cognos Analytics server default style sheet can also cause font-related problems, particularly when the operating system is UNIX. On UNIX systems, fonts must be purchased and installed. To ensure that a specific font is used, perform one of the following tasks:

- Ask your administrator to update the Cognos Analytics server default style sheet to reflect the fonts that are installed on the server.
- Update the chart fonts that are used in your report to use that font, and do not rely on any default fonts.

## Out-of-memory errors with reports that are run in interactive HTML format

Out-of-memory errors occur when you run a report in interactive HTML format. The errors do not occur when you run the report in other formats, such as PDF or saved HTML.

Out-of-memory errors occur in reports that contain many objects that require memory intensive processing, such as crosstabs and charts that are linked together with master-detail relationships. Running reports in interactive HTML can consume more memory than running reports in other formats. When a report is run in interactive HTML, data sets are kept in memory for all pages in the report. For report formats like PDF, data sets are released from memory after the report is rendered.

Under certain conditions, you can exceed the memory limitations of a 32-bit configuration of the Cognos Analytics server report server component when you interact with an interactive HTML report. For example, scrolling through a report page by page or drilling up or drilling down can consume more memory and processing capacity in interactive HTML than in other output formats.

## Problems with viewing saved active report output in Mozilla Firefox 8 or later versions

When you try to view saved Active Report output in Mozilla Firefox 8 or later, you receive errors.

No problems occur when you use an earlier version of Firefox. In Firefox 8 and above, you see the following errors:

Error: ReferenceError: HTMLIsIndexElement is not defined

Error: TypeError: \_IS1 is undefined

The problem occurs because HTMLIsIndexElement was deprecated as of Firefox 8. To resolve the problem, rerun the active report and create a new saved output version.

**Tip:** If you must rerun many active reports, you can create a job to run multiple reports.

## Problems with large SAP BW queries

When you are working with an SAP BW data source, if your report includes a data set greater than 1,000,000 cells, you might encounter an XQE error.

XQE-CON-0007 XQE error encountered: XSB-ERR-0022 Execution of MDX failed: XSB-ERR-0038 SAP Error executing BAPI BAPI\_MDDATASET\_SELECT\_DATA: com.cognos.xqe.data.providers.olap.sbwodp.bapi.JBapiSAPException: RFC Error: MDX result contains too many cells (more than 1 million).

To avoid this error, set the **Processing** property for the query to **Limited Local**. This option allows the report to process locally.

## Master Detail or Burst Reports with Charts or Crosstabs May Result in Denial of Service

When running a master detail or burst report that includes a chart or crosstab, disk space exhaustion may cause the report or other requests to fail.

A large set of burst keys or master rows may produce one or more charts per detail, resulting in many master detail executions. This may cause the temp folder to accumulate many gigabytes of temporary files containing data required for successful chart rendering.

To avoid this issue, we recommend that you test large master detail or burst reports that include charts or crosstabs to determine the potential peak disk requirements for the report.

## Error when filtering on a \_make\_timestamp column

You cannot filter on a \_make\_timestamp column. If you do that, the following error messages appear:

```
UDA-SQL-0114 The cursor supplied to the operation "sqlOpenResult" is inactive
```

```
UDA-SQL-0206 The OLEDB driver returned the following value:  
HRESULT= DB_E_CANTCONVERTVALUE
```

```
RSV-SRV-0025 Unable to execute this request
```

The solution is to apply the filter after aggregation, and not before.

## Result set of a multi-fact query contains blanks

The result set of a multi-fact query contains blanks in some columns, even though there is a conformed dimension that should join the records from both fact tables.

When IBM Cognos Analytics processes a multi-fact query, it breaks it up into two single fact queries (each with items from a single star in the star schema), then stitches the results of both of those queries

together to create a single result set. You can see the two queries and stitching in the native SQL generated for the multi-fact query in Reporting.

Stitching these queries together is not the same as joining tables in the model. Stitching the two sides together requires a stitch key that exists in each single fact query as a unique value for the row. The rows from the two single fact queries are then matched 1:0, based on the stitch key values. The stitching must be 1:0. Otherwise, you can get double counting of measure data, or exclude rows that should be included. The stitching also means that it is possible for a row from one of the single fact queries to not have a corresponding row from the other single fact query, leading to blanks in the result set.

When the fact tables contain non-conformed dimensions between them, there is not a suitable stitch key among the query items selected. As a result, IBM Cognos Analytics creates one using RSUM, and joins the results of the two queries. For more information, see the topic Multiple-fact, Multiple-grain Query on Non-Conformed Dimensions in the *Framework Manager User Guide*.

When there is a conformed dimension, it is still possible to not have a suitable stitch key, depending on what items are used in the query and other model design factors. In such cases, IBM Cognos Analytics uses the conformed dimensions and the row numbers from the results of each query to create a stitch key. If one single fact query returns more rows than the other, there are blanks in the result.

To resolve the problem, it might be possible to avoid splitting the query by changing the model. For more information, see Resolving Queries That Should Not Have Been Split in the *Framework Manager User Guide*. If you cannot avoid splitting the query and the report needs these two result sets to be joined differently, create two separate, single-fact queries in Reporting, create a join between them, and define the join links and cardinality as needed.

## Single-select prompt is generated where multi-select prompt might be expected

A single-select prompt control is generated for an IN-filter when you run a report, view tabular data in a report, or set prompt values in report properties. Typically, a multi-select prompt control is expected in these report contexts when the IN-filter is used.

This issue applies to the dynamic query mode (DQM) only. In the compatible query mode (CQM), a multi-select prompt control is generated in this situation.

The generation of prompts depends on the queryPlanning parameter. The prompt controls within the same report, but in different contexts (running a report, viewing tabular data in a report, or setting prompt values in report properties), are generated in the following way:

1. A dataItem with expression `<expression>?productName?</expression>` generates a single-select prompt control.
2. A filter with expression `<filterExpression>[Products] in (?productName?)</filterExpression>` generates a multi-select prompt control.
3. A dataItem must be referenced (projected) in the report page to be processed by queryPlanning.
4. Viewing tabular data on a specific query generates a temporary query that projects all dataItems, and therefore all dataItems are processed by queryPlanning. (Viewing tabular data is not like running a report.)
5. When query "a" is referenced from another query, all dataItems in query 'a' are processed by queryPlanning.
6. When queryPlanning processes a parameter that is used in two different contexts (see items 1 and 2 in this list), a single-select prompt control is displayed in the user interface.
7. When you run a report, queryPlanning receives an execute request that points to a specific query in the report, which means that queryPlanning collects no knowledge from other queries in the report. Therefore, the same parameter that is used in a different context (see item 1 and 2 in this list) and in different queries might produce either a single-select prompt control or a multi-select prompt control. It all depends on the order in which the queries are processed by queryPlanning, which is driven by the report layout.

8. When you set the prompt values from the report properties in the **Content** page, queryPlanning receives a `getParameter` request, which means that it processes all queries in the report to collect all parameter information. Therefore, the same parameter that is used in different contexts (see items 1 and 2 in this list) and in different queries generates a single-select prompt control.

### Scenario 1

The report includes one query with the following expressions:

- `dataItem = <expression>?productName?</expression>`
- `filter = expression <filterExpression>[Products] in (?productName?)</filterExpression>`

The `dataItem` is referenced in the report page.

The following prompt controls are generated in this scenario:

- A single-select prompt control is displayed when you run the report (see item 6 in the list above).
- A single-select prompt control is displayed when you set prompt values in report properties (see item 6 in the list).
- A single-select prompt control is displayed when you view tabular data in the report (see item 6 in the list).

### Scenario 2

This scenario is similar to scenario 1, except that the `dataItem` is not projected in the report page, but included in the query.

The following prompt controls are generated in this scenario:

- A multi-select prompt control is displayed when you run the report (see item 2 in the list).
- A multi-select prompt control is displayed when you set prompt values in report properties (see item 2 in the list).
- A single-select prompt control is displayed when you view tabular data in the report (see item 4 in the list).

### Scenario 3

The report includes two queries, for example, two list frames where the first list refers to Query 1, and the second list refers to Query 2.

#### Query 1

```
dataItem = <expression>[Products]</expression>
filter = expression <filterExpression>[Products] in (?productName?)</filterExpression>
```

#### Query 2

```
dataItem = <expression>?productName?</expression>
```

The following prompt controls are generated in this scenario:

- A multi-select prompt control is displayed when you run the report because Query 1 is processed first (see item 7 in the list).
- A single-select prompt control is displayed when you set prompt values in report properties because all queries are processed (see item 8 in the list).

### Scenario 4

This scenario is similar to scenario 3, but the first list frame points to Query 2, and the second list frame points to Query 1.

The following prompt controls are generated in this scenario:

- A single-select prompt control is displayed when you run the report because Query 2 is processed first (see item 7 in the list).
- A single-select prompt control is displayed when you set prompt values in report properties because all queries are processed (see item 8 in the list).

## XQE-V5-0005 Identifier not found '\_row\_id' error

You run a report and get error message "XQE-V5-0005 Identifier not found '\_row\_id'. CAF-WRN-2082 An error has occurred. Please contact your administrator."

If the report is using data module that contains data from an uploaded file, make sure that both the data module and the file are stored in **Team content**. Data that is stored in **My content** can be accessed by only the user who uploaded it.

## Scheduled reports fail after password update: CM-REQ-4159 CM-CAM-4005 Unable to authenticate

When you log in to Cognos Analytics and then change your password, previously scheduled reports may fail, while other non-scheduled reports run successfully during the current session.

The following message appears:


CM-REQ-4159 Content Manager returned an error in the response header. The error "cmAuthenticateFailed CM-CAM-4005 Unable to authenticate. Check your security directory server connection and confirm the credentials entered at login" can be found in the response SOAP header. CM-REQ-4342 An error has occurred with the client.

This issue occurs because, for performance reasons, trusted credentials are automatically renewed only once every 24 hours. If you changed your password during the 24-hour period after your credentials were automatically renewed during a Cognos Analytics session, the trusted credentials associated with your scheduled reports are no longer valid and the reports fail.

For more information, see [Trusted credentials](#).

### Resolving the problem

To ensure that your scheduled reports run without errors, renew your trusted credentials manually. Follow these steps:

1. Click the **Personal menu** icon , then click **Profile and settings**.
2. On the **Profile** tab, under **Advanced options**, for **Credentials**, click **Renew**.

## Problems when opening an asset

---

The topics in this section document problems you may encounter when opening an asset.

### Error due to cross-site cookie restrictions

Cross-site cookie errors in Cognos Analytics can be caused by these scenarios:

- Some browsers block cross-site cookies by default.
- Incorrect gateway configuration can result in cookies not being set – preventing users from being able to log in,

**Note:** The browser issue is not specific to a Cognos Analytics release. It occurs in certain browser versions whose security settings may change over time.

## Solution

To resolve the browser issue, follow these steps:

1. Edit your browser settings to allow cross-site cookies. For more information, see your browser documentation.
2. If the issue persists, the administrator should configure the cookieSameSite attribute.

**Note:** Alternatively, you can avoid the errors by ensuring that HTML files containing iFrames are hosted in the same domain.

## Performance issues when running reports

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The topics in this section document performance problems you may encounter when running reports.

### CGI Timeout Error While Transferring Data to IBM Cognos Analytics Components

When performing operations through your Web browser, you receive an error message.

The following error message appears when you use Microsoft Windows Internet Information Services (IIS) as your Web server and the gateway is configured to use CGI. IIS has a default timeout for CGI applications.

*CGI Timeout, process will be deleted from server.*

To resolve this problem, you can configure the gateway to use ISAPI. IIS does not have a default timeout for ISAPI applications. Or, if you want to keep using a CGI gateway, you can increase the CGI timeout in IIS.

#### Procedure

1. To change the gateway to ISAP, do the following:
  - On the gateway computer, start IBM Cognos Configuration.
  - Under Environment, for the Gateway URI property, change the cognos.cgi portion of the URI to cognosisapi.dll.
  - In your Web browser, specify the ISAPI URI:  
`http://computer_name/ibmcognos/isapi`
2. To increase the CGI timeout, do the following:
  - In the Microsoft Windows administrative tools, open **Internet Information Services**.
  - Under the local computer node, right-click **Websites** and select **Properties**.
  - In the **Home Directory** tab, click **Configuration**.
  - In the **Process Options** tab, increase the **CGI script timeout**.

### The BAP-ERR-0002 BAPI Error

When using IBM Cognos Analytics with an SAP BW data source, the following error message may appear:

*BAP-ERR-0002 BAPI error occurred in function module BAPI\_MDDATASET\_CHECK\_SYNTAX. Error occurred when starting the parser.*

This error usually occurs because the SAP BW server is overloaded.

To resolve this problem, restart the IBM Cognos Analytics server or close all open connections from the SAP BW Administrator Workbench.



## The Out of Memory Error Appears in HP-UX

In HP-UX, the default setting for the threads per process is too low for most Java applications.

To avoid out of memory errors, increase the value for the following kernel parameters:

- `max_thread_proc`
- `nkthread`.

**Note:** The `nkthread` parameter should be double the value of the `max_thread_proc` parameter.

For more information, see the HP Web site.

## A Query Is Slow When Filtering Non-ASCII Text

When using an SAP BW data source, and range filters are defined on non-ASCII text values, such as city names that contain accented characters, the query may take longer to run. This occurs because the filter must be performed on the application server and not on the SAP BW server because SAP BW 3.0B supports queries only if they use ASCII values.

To avoid this problem, do not filter non-ASCII values.

## Report Output Takes a Long Time to Run

You click **Run with Options** and select the **Save the report** delivery option. This action returns all data, renders the report, and stores it in the content store, which can take a long time.

It is quicker to run the report manually, using the **Run** command, which generates the report a page at a time.

## Report runs slowly

The following is a list of questions that will help you to troubleshoot a slow report.

- Does your IBM Cognos environment conform with the supported environments?
- Has the report always been slow or did it recently become slow?

If it recently became slow, can you identify an event that occurred just before the report began to run slowly? Events could include changes to configuration settings, changes to tuning settings, a recent upgrade where your previous settings have not been applied, an introduction of firewalls or proxies, changes to existing firewalls or proxies, changes to virus scans on temp directories, or temporary table space restrictions on the database. This event could have caused the change in report performance.

- Is the performance slow for all reports or just one report?

If all reports are slow, the issue may be due to your environment or database. If all reports from a specific package are slow, the issue may be due to the model design. If just one report is slow, the issue may be due to a specific report element.

- How many queries does your report contain?

The number of queries on the report will proportionally affect the report execution time.

- Does the report run slowly for everyone, or just for one user?

If the report runs slowly for just one user, the issue may be due to something in that user's environment, such as virus scanning, page file size or location settings, or their location on the network.

- Is the report burst or run often by many people?

If many people are running the same report at the same time, you may need to scale your environment or consider using dispatcher routing rules to direct all requests for a specific package or group of users to a specific server or server group. For more information, see the *IBM Cognos Analytics Administration and Security Guide*.

- Do your queries require local processing?

The following report elements require local processing: crosstabs and charts, master relationships, unions or joins, multiple fact queries, bursting, and non-vendor specific functions. Local processing requires the IBM Cognos server to compute operations on the result set returned by the database, which can impact the SQL execution time.

- Does your environment use a Custom Authentication Provider?

Using a Custom Authentication Provider could cause a memory leak if the code is not destroying objects correctly.

- Have you reviewed the logs in the *install\_location\uninstall\logs* directory and the audit logs?

They may help you identify the source of the problem. Monitoring your processes, such as the Java and the bus processes could also identify excessive memory use.

- Is your environment tuned correctly?
- Have you recently upgraded?

Ensure that any tuning settings that were applied to your previous installation are applied to the new environment. Ensure that your models have been verified, upgraded, and republished. Verify that the IBM Cognos Framework Manager governor that allows enhanced model portability at runtime is not enabled. Depending on your upgrade method, you may also need to open and save the reports again after upgrading.

## Problems Viewing Reports

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The topics in this section document problems you may encounter when viewing reports.

### An upgraded report does not retain its original look

When you upgrade a report to IBM Cognos Analytics, a new style sheet is applied that changes the look of the report.

To preserve the formatting that was used in the original report, you can select a different style sheet. This retains the original look of the report and specifies that any new items added to the report, such as list columns or crosstab levels, have the original formatting applied to them.

#### Procedure

1. Open the report in IBM Cognos Analytics - Reporting.
2. From the **Report** menu in the toolbar, click **Report**.
3. In the toolbar, click the **Show properties** icon  to open the **Properties** pane, if it's not already open.
4. In the **Properties** pane, for the **Report styles version** property, select one of the available values.

For example, to use the IBM Cognos ReportNet style sheet, select **1.x**.

### Preventing font changes that cause text wrapping in PDF report outputs

In an upgraded IBM Cognos Analytics environment, if you work with reports created in older versions, you might find that some query data in PDF reports now wraps onto a second line. You can set the advanced property `RSVP.RENDER.PDF_FONT_SWITCHING` to restore the font-choosing behaviour of earlier versions of IBM Cognos Analytics.

#### About this task

IBM Cognos Analytics software uses preferred fonts. The preferred font is any font listed in a report specification, followed by the fonts listed in the global styles cascading stylesheet (css) file. If the first font cannot be used, the software uses the next font in the list. In previous versions of IBM Cognos Analytics, a font was used only if all characters in a string could be displayed using that font. Starting with IBM Cognos Analytics 10.1, the preferred font is applied at the character level. When a character is not available in the preferred font, it is displayed in the next font specified. As a result, one word can

be displayed using different fonts, or some fonts might be bigger, which can cause word wrapping. If you have this problem, configure IBM Cognos software to choose fonts using the rules from previous versions of the product. You can do this by setting the `RSVP.RENDER.PDF_FONT_SWITCHING` advanced setting to **false** for the report and batch report services.

## Procedure

1. In IBM Cognos Administration, on the **Configuration** tab, click **Dispatchers and Services**.
2. Click the dispatcher.
3. For the **BatchReportService**, in the **Action** column, click the **Set properties** icon.
4. Click the **Settings** tab.
5. For **Advanced settings**, click **Edit**.
6. Click **Override the settings acquired from the parent**.
7. Type the parameter `RSVP.RENDER.PDF_FONT_SWITCHING`
8. In the **Value** column type `False`
9. Click OK.
10. Repeat steps 3 to 9 for the **ReportService**.

## Measure Format Disappears in SSAS 2005

Microsoft SQL Server 2005 Analysis Services (SSAS) does not propagate formatting through calculations. IBM Cognos compensates for this whenever possible, but cannot guarantee to do so in all cases. As a result, if you are working with a Microsoft SSAS cube, any calculation (other than a non-count summary) that is based on or intersects with a formatted measure, such as a currency, may lose the measure format. This may also happen if you use a detail filter or context filter (slicer).

For example, a crosstab includes members on one edge and a measure with formatting, such as a currency symbol and decimal places, applied on the other edge. When you run the report, you see the formatting for each cell. However, if you add a detail filter, such as `measure > 1` and run the report, all the formatting disappears.

Additionally, the fine details of the MDX generated by IBM Cognos Analytics can change from release to release. As the SSAS behavior depends on the MDX generated, the loss of formatting in reports might not occur in a future release.

To avoid this problem, specify explicit formatting for the affected row, column, or cell.

## A Running Total in Grouped Reports Gives Unexpected Results

You have a running total calculation in a grouped report that returns unexpected values.

Because tabulation of the running total calculation depends on the order in which the grouping is executed, you must ensure that the grouped totals are tabulated before applying the running total.

To ensure that the grouping is executed in correct order, define a running total calculation as a freestanding calculation outside the query subject in IBM Cognos Framework Manager, and ensure that the Regular Aggregate property is set to Automatic.

This may also be an issue with other running, moving, and ranking aggregations.

## The Page Cannot Be Found Error Appears for Reports

When a report is distributed by email, no error message appears if the report output from the email link is not available. This can occur when the output is deleted or when the user does not have permissions to the report. Instead, the error The Page Cannot Be Found appears.

You are unable to view the report output from the email link when **Allow Anonymous Access** is set to **True** and when the Anonymous user does not have access to the report output.

When you run a secured report from an email link and when **Allow Anonymous Access** is set to **True**, a passport is automatically issued to the Anonymous user. The Anonymous user is not prompted to log on and is unable to view the report output.

## Non-English characters appear as placeholders

A Unicode application permits handling of content in any language, or any combination of languages. However, if your database contains non-English characters, and if the database client is not configured to receive these characters, some characters may appear as placeholder characters, such as boxes or inverted question marks.

To avoid this problem, ensure that your database clients are properly configured. For more information, see your database vendor documentation.

## Cannot Connect to a SQL Server Database Using an ODBC Driver

The connection works in IBM Cognos Framework Manager, and metadata can be imported. When testing the database connection in the portal, errors occur.

When the following errors occur, the solution is to change the Network Library Configuration for SQL Server to use TCP/IP instead of Named Pipes.

QE-DEF-0285 Logon failure

QE-DEF-0325 The cause of the logon failure is:

QE-DEF-0068 Unable to connect to at least one database during a multi-database attach to 1 database(s) in: testDataSourceConnection

UDA-SQL-0031 Unable to access the "testDataSourceConnection" database

UDA-SQL-0129 Invalid login information was detected by the underlying database

[Microsoft][ODBC SQL Server Driver] [SQL Server] Login failed for user '(null)'. Reason Not associated with a trusted SQL

### Procedure

1. Open **ODBC Data Source Administrator**.

Tip: In Microsoft Windows 2000 you can do this by clicking **Start, Settings, Control Panel, Administrative Tools, Data Sources (ODBC)**.

2. Select the data source name defined for SQL Server on the **System** or **User DSN** tab.
3. Click **Configure**.
4. On the **Microsoft SQL Server DSN Configuration** page, click **Next**.
5. Click **Client Configuration**.
6. Ensure that **TCP/IP** is selected for the Network library entry.

## Unable to click links

Links will not work if your browser is not properly configured. Consequently, you cannot perform operations such as running a report or starting Reporting.

For all web browsers, cookies and JavaScript must be enabled. For more information, see your browser help.

## Missing Images in a PDF Report

Images that appear in reports rendered as HTML are missing in reports rendered as PDF.

The embedded GIF, JPG, and BMP images do not appear. Only the borders of the missing images appear.

If you use Microsoft Internet Information Services (IIS), go to the properties sheet of the Web site and ensure that the **Enable the HTTP Keep Alives** option is selected.

Ensure that the virtual directory where the images are stored has anonymous access enabled. Open IIS and open the properties sheet for the virtual directory for your images. Select the **Anonymous Access** check box.

If you do not want to open up anonymous access to all users, ensure that the account that is running the dispatcher has access to the virtual directory where the images are stored.

## Problems Printing Reports

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The topics in this section document problems you may encounter when printing reports.

### A printed HTML report is unsatisfactory

Printing HTML may produce unsatisfactory results.

For best results, run the report in PDF format, and then print it from the PDF viewer menu bar. This alternative gives you more control over such things as pagination than the browser does.

### Preventing 429 Too many Requests issue

When you simultaneously render many reports with computationally intensive visualizations to PDFs, you might receive the 429, Too Many Requests response from the Image service. To prevent this issue, you can improve the performance of the Image service.

The Image service has limited resources for rendering visualizations because servers and cloud environments do not use Graphic Processing Units (GPU), but only Central Processing Units (CPU). Therefore, the rendering of visualizations that require intense computation, such as maps, can take much more longer than usually. Moreover, one browser can render one visualization at a time. Therefore, when you generate many rendering requests within short time in IBM Cognos Analytics, the Image service might become overloaded, and you might receive the response 429, Too Many Requests from the service.

To reduce the risk of overloading the Image service, you can change the following configuration parameters of the service:

- MAX\_CONCURRENCY - the number of browsers that can be used.
- MAX\_TIMEOUT - the maximum time for rendering a chart.
- MEM\_LIMIT - the maximum amount of the memory that a container can use before the container is stopped.

Adjust the MAX\_CONCURRENCY and MAX\_TIMEOUT parameters according to the topic [Configuring the Image service](#).

To adjust the MEM\_LIMIT parameter, do the following steps:

1. In a text editor, open the file *cognos\_installation\_location/analytics/image-service/client-scripts/docker-compose.yml*. Or *cognos\_installation\_location/analytics/image-service/client-scripts/docker-compose.ssl.yml*, if your Image service uses SSL.
2. Specify the memory by using the string format. For more information, see [Docker documentation](#). The letter case in the units does not matter.

**Important:** Set the value of the MEM\_LIMIT parameter to at least 1.5 GB. The value is the product of the memory for each browser (the minimum is 500 MB) and the number of browsers (MAX\_CONCURRENCY).

3. Save and close the file.

## Drill-through issues

The topics in this section document unexpected results that you may encounter when using drill-through.

### Drill-through Links are Not Active in the Safari Browser

When viewing a PDF report in the Macintosh Safari browser, you cannot open hyperlinks. This is because the Macintosh Safari browser does not have the necessary Adobe Acrobat plug-in.

To avoid this problem, use the HTML format when creating drill-through reports that may be viewed in Safari.

### Cannot Drill Through From a Relational Source to a Cube


By default, you cannot drill through from a relational data source to a cube. This is because a cube expects a Member Unique Name (MUN) as a parameter value and relational sources do not use MUNs.

Members have properties which include a business key and a caption. If either of these match data items within the relational source, drilling through can be performed as long as the cube target report is authored in Reporting.

If the source data source has a query item, for example display name, that corresponds to a member property in the target cube, for example caption, you must create the parameter on the caption in the target report.

To pass the data item to the cube target, do the following:

- In the cube target report, create a parameter that accepts the caption of the member. This parameter

should be created in a Query calculation object from the **Toolbox** icon  with the following syntax. Type the following

```
filter([ Hierarchy or Level],caption([Hierarchy of Level]) = ?Parameter?)
```

For example:

```
filter([sales_and_marketing].[Products].[Products].[Product line],  
caption([sales_and_marketing].[Products].[Products].[Product line])  
= ?Product Line?)
```

### Cannot Drill Through Between PowerCubes Because MUNs Do Not Match

We recommend that business keys be unique throughout the dimension for PowerCubes. These keys are used as the source value for levels in a hierarchy of a dimension. If the values are not unique throughout the dimension, the corresponding Category Code values may be generated with tildes.

For example, if a category for the Product Line level has a source value of 101 and a category in the Product Type level has a source value of 101, the Category Code value for the Product Type level is automatically generated with a unique value such as 101~245. The Category Code values are used in the Member Unique Name (MUN) for each member, for example, **[Sales and Marketing].[Products].[Products].[Product type]->:[PC].[@MEMBER].[101~245]**.

Because these values are generated automatically, they cannot be guaranteed from one cube build to the next or in a build for another cube with the same dimension structure using the same source values. Therefore, drilling from one PowerCube to another on what appears to be the same member might not work since the MUNs might not match.

If the MUNs do not match, consult the cube modellers to see if the business keys can be made unique throughout the dimension. If this is not likely, or might take some time to resolve, you can use calculations to pass the source value from one PowerCube to another for drill-through.

## Procedure

1. In the target report, create a filter with the following syntax:

```
filter([Hierarchy or Level], roleValue('_businessKey', [Hierarchy or Level])  
= ?Parameter?)
```

For example:

```
filter([Sales Cube].[Products].[Products].[Product type],  
roleValue('_businessKey', [Sales Cube].[Products].[Products].[Product type])  
= ?Prod Type?)
```

2. In the source report, create a Query Calculation which is used to pass the business key (source value) to the target report by mapping it to the target parameter in the drill-through definition. Use the following syntax:

```
roleValue('_businessKey', [Hierarchy or Level])
```

For example:

```
roleValue('_businessKey', [sales_and_marketing].[Products].[Products].  
[Product type])
```

## Detail Cells are Not Displayed for Excluded Items When Drilling Through to PowerPlay Studio

In IBM Cognos PowerPlay® Studio, you can use the Hide/Show feature to hide items in a report. If you drill through to a PowerPlay Studio target report to an item that is hidden in the source report, the target has no detail cells for the hidden item.

For example, the year 2005 is hidden on the row edge in a PowerPlay Studio target report. You drill-through to the target report on 2005 in a PowerPlay Studio or Reporting source report. The target report shows no detail cells for 2005 they are hidden.

However, if the Show Summaries option is selected for the hidden categories in the target report, then the summary row will display the total values for 2005.

To correct this problem, do not exclude items in the source report if you want to see the details cells in the target report.

## Drill-Through Parameter is Ignored in PowerPlay Studio Due to a Custom Set

When a target PowerPlay Studio report contains a custom subset, you may not see the results you expect when you drill through from a source report in PowerPlay Studio, or Reporting. For example, the target PowerPlay Studio report contains a custom subset for the year 2006. If you drill through from the source report in PowerPlay Studio, or Reporting, the year 2006 is displayed. But, since the custom subset does not include the year 2004, the drill-through parameter for 2004 is ignored and items for 2004 are not displayed.

To avoid this problem, ensure that the target report has custom subsets that include the items you want to display during drill-through from source reports.

## Drill-Through Definition is Not Available

When a drill-through definition is created there is an option to specify the scope for the drill-through definition. The specified item can be a query subject, query item, measure, dimension, or level.

The item must be present and selected in the source report when drilling through to a target report for the drill-through definition to work. It must also be available in the list of drill-through target links on the **Go**

To page. If the scope item is not included in the source report when it is created in Reporting or PowerPlay Studio, the drill-through target link does not appear on the **Go To** page.

## Calculations Do Not Appear in the Target Report

If you drill through to PowerPlay Studio from a report in Reporting or PowerPlay Studio, calculations on the edges in the target report might not appear.

For example, you have a target report with the calculation Personal Accessories+100 as a column in a crosstab report. When you drill through from a source report to the target report, if Personal Accessories is filtered out of the target report (Personal Accessories is not one of the items that is returned on the column edge), then the Personal Accessories+100 calculation does not appear. Personal Accessories has been filtered out of the target report and is not available to fulfill the calculation.

To see the calculations in the target report, ensure the items used in the calculations are returned in the result set (not filtered out).

## Nested Crosstab Only Filters on Some Items

If you perform a parameter-based drill-through from a source report to an IBM Cognos Analytics - Reporting target report with two or more dimensions nested on a row or column, you may encounter unexpected results depending on the filters applied to the target report.

For example, a target Cognos Analytics - Reporting report has the following two filters:

- [sales\_and\_marketing\_mdc].[Order method].[Order method].[Order method type]=?Order Method Type?
- [sales\_and\_marketing\_mdc].[Retailers].[Retailers].[Region]=?Region?

Order method type and Region both have filters, but Product line does not. A drill-through definition mapped to the appropriate parameters, in this case Order method type and Region, is created.

When the source report is run and the intersection of Outdoor protection, Northern Europe, and Telephone is selected to drill through to the target report, the order method type and region display as expected, but all product lines are returned. This is because there are filters on Order method type and Region but not Product line.

## Data Does Not Appear in a Target Report or the Wrong Data Appears

If no data appears when you drill through to a target report or if the wrong data appears, the problem might be data source conformance. The business keys might be different or might be mismatched.

For example, the business key for Camping Equipment might be 100 in the data source for the source report and 1 in the data source for the target report, in which case no data appears in the target report. Another example might be that the business key for Camping Equipment is 100 in the data source for the source report but, in the data source for the target report, 100 is the business key for Golf Equipment, in which case the wrong data appears in the target report.

To solve the problem, ensure that business keys have the same value in both data sources. If there are cases where data does not appear to match, contact your database administrator or data modeler.

For more information about data source conformance, search for "conformed dimensions" and "business keys" in the *IBM Cognos Transformer User Guide* and the *Reporting User Guide*.

You might also want to see [“Unexpected or empty results when drilling through” on page 81](#).

## Data is Not Filtered in the Target Report After Drill-Through

You drill through to a target report, but no filtering occurs in the target report. For example, you drill through on a crosstab intersection of Camping Equipment and 2010 and expect to see only data for



Camping Equipment for 2010 in the target report. Instead you see all products for all years. This occurs because the target report has no filters for the parameters that were passed.

To solve the problem, ensure that the target report has the correct filters. In the previous example, the correct filters in the target report are Product line and Year. Alternatively, you can enable Dynamic Drill-Through in a package-based drill-through definition.

## Error when drilling through from source report in PDF

The "request not valid" error occurs when you drill through from a source report in the PDF format.

The error reads:

DPR-ERR-2101 Your request was invalid. Please contact your administrator.

When you drill through from a source report in PDF, then drill-through only works if the session is active. If the browser is closed or if the passport timeout expired, then the following message *DPR-ERR-2101 Your request was invalid. Please contact your administrator* is displayed.

The PDF drill-through metadata has a lifetime that matches the passport. This lifetime allows for a downloaded PDF to still allow drill-through. Because the PDF itself has a lifetime of 15 minutes, you are unable to restore the PDF after a drill is to be expected.

## Unexpected or empty results when drilling through

When you drill from a source report to a target report, there might be no data returned. This might be the correct result if there is no data that corresponds to the drill-through selections or if you do not have permission to view the data.

In other cases, if no data or the wrong data appears, the source item might not be mapped to the target correctly or the values in the data sources might not be conformed (the values do not match in both data sources).

For classic reports, if you have the necessary permissions, you can debug drill-through definitions by using the drill-through assistant from the **Go To** page (right-click the selection in the source report and select **Go To**). You can view the passed source values and the mapping to the target report parameters. You can use this tool for both authored and package drill-through definitions.

For interactive reports, if you have the necessary permissions, you can debug drill-through definitions by using the drill-through assistant in the **Advanced** section of **Related links** pop-up window (highlight the selection in the source report, select Explorer on ODT, **Related links**, and **Find more** drill-through links). You can view the passed source values and the mapping to the target report parameters. You can use this tool for authored drill-through definitions.


You might be able to correct the problem by modifying the parameter mapping in the drill-through definition. For example, when you drill from a cube to a relational data source, sometimes no data is returned or the wrong data is returned because the business key values in the two data sources do not match. You can change the drill-through definition to pass the caption of the IBM Cognos PowerCube member instead of the business key, but you must also change the target report to filter on the corresponding string value and not the business key value.

However, it is best to ensure the data sources are conformed. In this example, the business keys in the cube should match the business keys in the relational source. Filtering on a key is more efficient than filtering on a larger string that may or may not be indexed in the database.

For more information on data source conformance, search for "conformed dimensions" and "business keys" in the *IBM Cognos Transformer User Guide* and the *IBM Cognos Analytics - Reporting User Guide*.

### Procedure

1. Ensure that the target report filters on a string value that matches the caption being passed from the PowerCube.
2. Edit the drill-through definition as follows:

- If the drill-through definition was created in IBM Cognos Analytics - Reporting, open the report, and go to the drill-through definition associated with the drill-through source object. On the parameter mapping page, select **Member caption** in the **Property to pass** column.
- If the drill-through definition was created in the source package, in the IBM Cognos Analytics portal, click the **New** icon , **Other**, **Drill-Through Definitions**. Open the package drill-through definition. On the **Target** tab of the drill-through definition, select **Member caption** in the **Property to pass** column for the appropriate parameter.

## Results

When you drill through, instead of the business key, the caption is passed to the target.

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## Chapter 6. Problems when using Cognos Analytics on mobile devices

Use this troubleshooting information to solve problems that you might encounter when configuring, running, and viewing IBM Cognos Analytics content on mobile devices. Problems might occur on the Cognos Analytics Mobile Reports server or on the Cognos Analytics Mobile Reports client.

### Cognos Analytics Mobile Reports service problems

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You may encounter problems when configuring and running IBM Cognos content on Cognos Analytics Mobile Reports.

#### Charts and images not appearing

Charts and other images do not appear in reports in Cognos Analytics Mobile Reports if IBM Cognos Analytics is installed on a UNIX operating system that does not have X server software installed.

To resolve this problem, configure IBM Cognos Analytics to run with X server software.

#### Procedure

1. Find the `bootstrap_*.xml` file located in the `install_location\bin` directory or in the `install_location\bin64` directory.

The exact `bootstrap_*.xml` filename depends on the version of UNIX that you are using.

2. Add the line `<param>-Djava.awt.headless=true</param>` to the following startup parameter in the `bootstrap_*.xml` file:

```
<process name="catalina">
  <start>
    <spawn sync="1" wait_time="5">
      <path>${java_home}/bin/java</path>
      <param>-d64</param>
      <param>-Djava.awt.headless=true</param>
      <param condName="${ip_protocol}"
condValue="IPv6">-Djava.net.preferIPv6Addresses=true</param>
      <param>-Xmx${dispatcherMaxMemory}m</param>
      <param>-XX:MaxNewSize=${dispatcherMaxMemoryBy2}m</param>
```

3. Save the modified file, and then restart the IBM Cognos Analytics server from the IBM Cognos Configuration tool.

For more information, see the *IBM Cognos Analytics Installation and Configuration Guide*.

#### List prompt items consisting of only a single space are not supported

While running a report, a user chooses an item from a list prompt that consists of only a single space and the report generates an error and fails to run.

To resolve this problem, either do not include single space items in list prompts or, if you do include the single space then ensure that the user does not select it when running the report.

#### Cognos Analytics Mobile Reports service configuration settings are reset to the defaults after upgrading

The Cognos Analytics Mobile Reports configuration settings and advanced settings may be reset to their defaults after IBM Cognos Analytics is upgraded.

To resolve this problem, reapply the settings.

## Advanced HTML functionality is not supported

Some advanced HTML functionality, such as Javascript and HTML tables, cannot be viewed in Cognos Analytics Mobile Reports.

To obtain table functionality, you can use IBM Cognos Analytics - Reporting to create a table.

## java.lang.NoClassDefFoundError

This error can occur while a report is running on a UNIX operating system if the server is running in headless mode.

To resolve this problem, in the *install\_location/bin* directory, in the IBM Cognos Analytics *startup.sh* file, add the following parameter:

```
JAVA_OPTS=-Djava.awt.headless=true
```

## java.lang.InternalError: Can't connect to X11 Windows server using ':0.0' as the value of the DISPLAY variable

The server cannot run a report because the DISPLAY environment variable was not set or was set incorrectly.

To render a report to a .png file, the Cognos Analytics Mobile Reports server invokes graphics routines. As part of this process, the server must also invoke the Java Abstract Windows Toolkit (AWT) libraries. This error occurs when the DISPLAY environment variable was not set or was set incorrectly and the server cannot find the AWT libraries.

To resolve this problem, ensure that the DISPLAY environment variable is set to X11.

## Cognos Analytics Mobile Reports service starts but then stops

Cognos Analytics Mobile Reports service fails during system startup. This means that the service has encountered a fatal error, such as being unable to create database tables.

Check the logs for additional information, take the appropriate action to correct the problem, and restart the service.

## Cognos Analytics Mobile Reports database tables are not created

After IBM Cognos Analytics Mobile Reports was installed with IBM Cognos Analytics, the scripts to create the MOB\_\* tables were not run.

Under normal circumstances, the Cognos Analytics Mobile Reports tables are created automatically after the Mobile service starts for the first time.

This problem might occur when Cognos Analytics application tier components and Cognos Analytics Content Manager are installed in different locations, and the Cognos Analytics Mobile Reports database is not configured properly.

Ensure that the Cognos Analytics Mobile Reports database is configured as documented in the *IBM Cognos Analytics Installation and Configuration Guide*.

## Cognos Analytics Mobile Reports client problems

---

Users might encounter problems when accessing IBM Cognos content on Cognos Analytics Mobile Reports.

## Images do not appear on Cognos Analytics Mobile Reports

Report images do not appear on Cognos Analytics Mobile Reports.

This happens when users use their own SSL certificates, which are not trusted by the Java virtual machine (JVM).

To resolve this problem, users need to use the Java keytool utility to import their SSL certificate into their JVM.

## Cognos Analytics Mobile Reports does not filter downstream prompts for cascading prompts using reprompt

Users do not see the expected results in reports that have been set up with cascading prompts that require reprompting, that is where the user must click **Reprompt** in Cognos Viewer.

IBM Cognos Analytics Mobile Reports does not apply the filters correctly downstream for the cascading prompts.

To resolve this problem, change the report's prompt options to Auto-Submit. With this option, IBM Cognos Analytics will apply the filters to the downstream prompts as expected.

## Repeater tables render incorrectly

A report that includes a repeater table that is within a block or table element does not render correctly in Cognos Analytics Mobile Reports.

To resolve this problem, rewrite the report so that repeater tables are not within blocks or table elements.

## Calendar prompts show only the Gregorian calendar

When a report with a non-Gregorian calendar date prompt is displayed in the IBM Cognos Analytics Mobile Reports app, the prompt appears in the Gregorian calendar format. The report runs after the user enters values in the prompt, but the results may be empty or inaccurate.

## Cognos Analytics Mobile Reports fails to connect to Microsoft SQL Server

IBM Cognos Analytics Mobile Reports accesses Microsoft SQL Server through the Java Database Connectivity (JDBC) driver, which uses a TCP socket to connect to the database.

If Microsoft SQL Server is not configured to allow TCP connections, then Cognos Analytics Mobile Reports will not connect to the database and will report errors in the logs.

To resolve this problem, enable TCP connectivity in Microsoft SQL Server.

## Long text messages may be truncated

Long text messages may appear truncated on some parts of the device user interface for some languages.

For example, the user may observe that report long names and some translated text messages are truncated.

## No reports available when logged on from Cognos Analytics Mobile Reports

The mobile user is logged on to the IBM Cognos Analytics Mobile Reports client, but cannot access any reports.

Reports need to be run before they appear in the mobile device inbox.

### Procedure

1. In Cognos Analytics Mobile Reports, click **Browse**.
2. Click a report.
3. Click **Run Report**.

The report runs on the server.

4. Click **Refresh inbox** to refresh the inbox.

The report appears in the list.

## Some Cognos Analytics Mobile Reports users do not receive burst reports

All Cognos Analytics Mobile Reports users specified as recipients of a burst report should receive the report on their mobile devices as scheduled. If some users do not receive the report, the report might not be properly scheduled.

In the schedule settings for the report, ensure that the following check boxes are selected:

- **Burst the report** under **Bursting**.
- **Send the report to mobile recipients** under **Delivery**.

Do not select recipients for this option because burst reports are delivered to users defined in the burst specification. Any recipients selected here are ignored.

Next time when the report is run, all mobile users should receive it.

Only those reports for which the report author defined burst options can be distributed by bursting. For more information about burst reports, see the *IBM Cognos Analytics - Reporting User Guide* and the *IBM Cognos Analytics Administration and Security Guide*.

---

## Chapter 7. Framework Manager problems

You may encounter problems when working in Framework Manager.

**Note:** If you experience issues logging in to the Cognos Analytics server from Framework Manager, we recommend that you enable WebView2. For more information, see [Alternate web technology support for Framework Manager authentication \(Microsoft Edge WebView2\)](#).

---

### BMT-MD-003 error when creating a new project after upgrading from a previous version of Cognos Framework Manager

If you upgrade IBM Cognos Framework Manager from version 11.0.3 or older, you must change the value of the **Dispatcher URI for external applications** in IBM Cognos Configuration.

The format of the **Dispatcher URI for external applications** has changed from `http://<server>:<port>/p2pd/servlet/dispatch` to `http://<server>:<port>/bi/v1/disp`.

---

### Unable to Compare Two CLOBs in Oracle

If you are using Oracle and ask IBM Cognos Analytics to compare two CLOBs, such as where C2 is equal to C3 (C2 = C3), you will see an Oracle runtime error.

To avoid this problem, use the DBMS\_LOB.compare method:

```
where 0 = dmbs_lob.compare (c1, c2)
```

---

### Framework Manager Cannot Access the Gateway URI

When you create a new project in Framework Manager, Framework Manager cannot access the Gateway URI.

The following message appears:

Unable to access service at URL: `http://hostname:80/ibmcognos/bi/v1/disp/b_acton=xts.run&m=portal/close.xts`

Please check that your gateway URI information is configured correctly and that the service is available.

For further information please contact your service administrator.

This message appears if the gateway is not properly configured. The gateway URI must be set to the computer name where IBM Cognos Analytics is installed and reflect the type of gateway you are using. You must log on as an administrator to configure the gateway URI.

#### Procedure

1. Close Framework Manager.
2. In IBM Cognos Configuration, in the **Explorer** window, click **Environment**.
3. In the **Properties** window, in the **Gateway URI** box, type the appropriate value:
  - To use ISAPI, replace `cognos.cgi` with **cognosisapi.dll**.
  - To use `apache_mod`, replace `cognos.cgi` with **mod\_cognos.dll**.
  - To use a servlet gateway, type the following: `http[s]://host:port/context_name/servlet/Gateway`

**Note:** *context\_name* is the name you assigned to the ServletGateway Web application when you deployed the ServletGateway WAR file.

- If you are not using a Web server, to use the dispatcher as the gateway, type the following:  
`http[s]://host:port/p2pd/servlet/dispatch`
- 4. If required, change the host name portion of the **Gateway URI** from localhost to either the IP address of the computer or the computer name.
- 5. From the **File** menu, click **Save**.
- 6. From the **Actions** menu, click **Restart**.

## Object Names Appear in the Wrong Language

---

When you import multiple languages from an SAP BW Query to a Framework Manager model, not all the object names retrieved from SAP BW appear in the correct language.

To avoid this problem, save the SAP BW Query again in each of the logon languages in Business Explorer Query Designer. The correct language texts will then show correctly in Framework Manager.

## Error for Type-In SQL Query Subject

---

When you define a type-in SQL query subject, an error appears because of the name assigned for the attribute reference in the structured type.

For example, this error appears when you define the following in Db2:

```
create type address as (  
  number character(6),  
  street varchar(35),  
  city varchar(35)  
)  
MODE DB2SQL;  
create table emp ( emp_no int, emp_address address);  
Select e.emp_no, e.emp_address..street from emp e  
SQL0206N "aBmtQuerySubject.2"
```

To resolve this problem, you have two options:

- Assign a simple correlation name to the column in the original query subject, such as `Select e.emp_no, e.emp_address..street as "ABC" from emp e`
- Use pass-through notation for the query subject by surrounding the column with double braces (`{{ }}`)

## QE-DEF-0259 Error

---

This error occurs if you use braces `{ }` in the wrong position in an expression.

IBM Cognos Analytics expects anything between the braces `{ }` to be at the same level as a function. If you have used braces elsewhere in an expression, you will see the following error message:

QE-DEF-0259 There was a parsing error

You can also use braces to send unique syntax to the data source. For example, your database uses a keyword for a function, but this keyword is not used in IBM Cognos Analytics.

IBM Cognos Analytics does not validate the syntax you enter between braces. The syntax is simply sent to the data source.

The solution is to make sure that braces are not used in the wrong positions.

For example, you type the following in an expression:

```
[ss_ole_both].[authors_lith].[au_id] = [ss_ole_both].[authors_latin].[au_id]  
{ collate Lithuanian_CI_AI}
```

You see the following error message:



QE-DEF-0259 There was a parsing error before or near position: 75, text starting at position: 5 "le\_both].  
[authors\_lith].[au\_id]=[ss\_ole\_both].[authors\_latin].[au\_id]{"

Meanwhile the following expression is valid:

```
{ Q3.au_id } = { Q4.au_id collate lithuanian_CI_AI  
}
```

## Externalized Key Figures Dimension Retains Old Prompt Value

---

You have a key figures dimension (SAP BW) that contains an optional prompt. If you externalize this dimension as a csv or tab file, the externalized file does not contain all the rows of data. This is because the prompt value is retained.

For example, you set the prompt value for the dimension when testing the dimension in Framework Manager. The prompt value is kept in the cache. Even if you clear the value of the prompt in the Prompt dialog box, externalizing the key figures dimension results in a file containing data that is filtered by the most recently used prompt.

To avoid this problem, do one of the following:

- Do not test the key figures dimension before you externalize it.
- Close the model, open it again, and externalize the key figures dimension.

## Older Models Display Level Object Security

---

If you are using a previously-created IBM Cognos model, object security on a level may have been defined. Object security on a level is not supported.

The solution is to verify and repair the older model before publishing it.

### Procedure

1. From the **Project** menu, click **Verify Model**.
2. Select the security view that references a level and click **Repair**.

## Searching for values might return unexpected results

---

In the expression editor, when searching for values for a data item, the results you obtain might contain unexpected results if the data item is not a string data type.

Because you can edit the expression for a data item, IBM Cognos Analytics cannot determine with certainty what the data type is.

Therefore, IBM Cognos Analytics guesses the data type of the data item by looking at its aggregate and rollup aggregate set.



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## Chapter 8. Transformer problems

You may encounter problems when working with IBM Cognos Transformer.

### Problems when Modeling in IBM Cognos Transformer

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You may encounter problems when modeling in IBM Cognos Transformer.

#### Accessing Error Message Help

Error message help is provided in cases where the basic error message is not sufficient to resolve the problem. The purpose of these help topics is to provide more detail about the cause of the problem, often an example of how the problem manifests itself in the Windows interface, and a possible solution or workaround.

If you are working on the Windows interface when a process fails or when Cognos Transformer encounters an invalid entry or request, one or more error messages usually appear.

#### Procedure

1. You can click the **Help** button in the message window, where available, to open an Error Message help file, which you can search by TR number.
2. You can also access these topics, organized by TR number, from the index.

#### BAPI Error Occurs After the Prompt Specification File Edited Manually

In Transformer, you create a prompt specification for a SAP-based package.

You edit the prompt specification file, `prompt.xml`, manually and save your changes. After editing the file, you attempt to generate a PowerCube using the command line options, for example,

```
cogtr -fpromptspecfilename -n cubename.mdl
```

but the PowerCube is not generated and you receive a BAPI error.

The error is caused by an invalid member unique name (MUN). Because editing the `prompt.xml` file manually is error prone, we recommend that you do not edit the `prompt.xml` file manually but create an alternate prompt specification instead.

#### Unable to Access an IQD Data Source Using a Sybase Database Connection

In Framework Manager, you use an IQD file to externalize a model using a Sybase database connection.

When you attempt to import the data source file into Transformer, you receive the following error message:

*[TR1907] Transformer cannot gain access to database database\_name with signon information <user ID, password>.*

The database connection fails because quotes are added to the SQL query when the data source is created in Framework Manager.

To successfully connect to the IQD data source and import the model, you must first edit certain configuration files in the `CS7Gateways\bin` directory.

## Procedure

1. Open the cs7g.ini file and ensure the database type in the connection string is CT, not CT15.  
Cs7g.ini is located in the *installation\_location*\CS7Gateways\bin directory.
2. In the [Services] section, include the following:  
CTDBA=ctdba, ctdba15
3. Save your changes.
4. Open the cogdmct.ini file and in the [UDA USER OPTIONS] section, specify the following:  
Attach=SET QUOTED\_IDENTIFIER ON  
Cogdmct.ini is located in the *installation\_location*\CS7Gateways\bin directory.
5. Save your changes.
6. Open Transformer and import the data source.

## Unable to use an IQD created in Framework Manager that contains an Oracle stored procedure

In Transformer, when trying to open an IQD created in Framework Manager that contains an Oracle stored procedure, you may receive a message similar to the following:

```
(TR0118) Transformer can't read the database [datasource] defined in  
Lan_location\datasource\iqd_name.iqd  
DMS-E_General A general exception has occurred during operation 'execute'.  
The native SQL generated in an IQD created in Framework Manager is wrong.  
The IQD cannot be used in Transformer.
```

To resolve this problem, execute the stored procedure in Framework Manager and set the **Externalize Method** to **IQD**. Create a model query subject from the executed stored procedure, then publish the package and open it in Transformer.

## Preventing Errors When Model Calculations Use Double Quotation Marks

If you try to open an .mdl-format model containing calculations that include double quotation marks, as might be used to create concatenated categories, you may get an error, even if you followed the recommended practice of wrapping these calculations in single quotation marks.

This is because .mdl-format models do not support the use of single and double quotation marks together, if the ObjectIDOutput flag is set to True, which is the default model creation setting.

To avoid this problem, you have two choices:

- You can open the cogtr.xml.sample file in a text editor, search for the string ObjectIDOutput, and change the setting to 0. Save the cogtr.xml.sample file as **cogtr.xml**. Restart Transformer, and resave the model.
- You can use your RDBMS or a tool such as Framework Manager to perform the required calculations, and then import the data into your model.

Whichever strategy you choose, you can then open the .mdl or py?-format model without error.

## Framework Manager and Transformer May Display Different Locale Session Parameters for Some Languages

Transformer may not return data in the expected locale during test or cube build when the following conditions are encountered:

- The locale shown in the File/Session information in Transformer is not included in the Framework Manager parameter map for session parameters.
- The modeler attempts to create a data source in Transformer using a query subject from the package where the locale does not exist.

When this is encountered, the locale of the modeler's session parameter does not exist in the Framework Manager parameter map. As a result, the data returned will not be the locale of the Session information shown in Transformer.

To avoid this problem, add the locale string that is displayed in the Transformer File/Session information to the Framework Manager parameter list so that Transformer can retrieve the expected data when accessing the data source. However, the model metadata will still be shown in English, or in the Framework Manager design language.

## Regular Columns Cannot Be Converted to Calculated Columns and Vice Versa

When you attempt to convert a regular column to a calculated column by opening the **Column** property sheet, the **Calculated** button is unavailable.

In Transformer version 10.1.0, you can no longer convert an existing regular column to a calculated column by changing the column properties. Similarly, existing calculated columns cannot be converted into regular columns by changing the column properties.

You can only create calculated columns using the **Insert Column** feature. For more information, see the topic "Define a Calculated Column" in the *IBM Cognos Transformer User Guide*.

This does not affect how calculated columns are imported from an IBM Cognos Series 7 model into Transformer. Existing calculated columns originally created in IBM Cognos Series 7 will be imported correctly.

## Transformer Takes a Long Time to Retrieve Data from an SAP-based Data Source

You are attempting to retrieve data from an SAP-based data source in Transformer with null suppression turned off. The retrieval takes a long time to complete.

Ensure that the machine where Transformer is installed has sufficient memory to perform the import. If physical memory is limited, Transformer may perform the operation very slowly. In this situation, you can end the task using Task Manager.

## Categories Missing When Creating a Transformer Model Based on an SAP Query Containing a Manually Created SAP Structure

The stream extract interface that reads the fact data doesn't handle certain features of the SAP queries. A manually created structure in the query will look like a dimension when Cognos Transformer completes the import from the Framework Manager package, but incomplete data is returned. A dimension added to the SAP query as a characteristic will look like a dimension but no data is returned.

If you must use a BEx query with these limitations, consider turning off the stream extract and rely on an MDX query. Note that if the MDX query is large, it may fail.

## Error Occurs When Creating a PowerCube Containing an SAP Unbalanced Hierarchy

You import an SAP package into Transformer that contains an unbalanced, ragged hierarchy and you receive a TR2317 error when you create a PowerCube.

To avoid this error, before generating categories for the dimension, do the following steps.

### Procedure

1. In the **Dimension Map**, right-click the lowest level in the ragged unbalanced hierarchy that is marked unique.
2. Click **Properties** and on the **Source** tab, click **Move**.
3. From the **Run** menu, click **Generate Categories**.
4. From the **Run** menu, click **Create PowerCubes**.

## Rebuilding a PowerCube Soon After Publishing Produces a TR0787 Error

After publishing a PowerCube using the Publish wizard in Transformer, the PowerCube file is locked for a few minutes by the IBM Cognos server.

If you attempt to rebuild the cube during this time, the cube build may fail, with Transformer error TR0787 indicating that the cube is being used by another application.

To avoid this situation, do one of the following:

- Do not use the **Publish** wizard to publish the cube.
- Wait for the file lock to be released, and then rebuild the cube.
- Build the cube in a location that is different from the location where the cube is published.

## Using the cube group in the sample model Employee expenses.mdl

The sample model Employee expenses.mdl contains a cube group named Employee that includes a few PowerCubes. These are only virtual PowerCubes. If you want to use them as data sources to create content in the IBM Cognos Analytics environment, you must generate the cubes and then publish the cube group.

### Procedure

1. Open the Employee expenses model in IBM Cognos Transformer.
2. Generate the PowerCubes.  
All PowerCubes in the model are generated.
3. Publish the Employee cube group using the **Publish PowerCube as Data Source and Package** option.

## Known Issues When Using PowerCubes in the IBM Cognos Studios

Using Transformer, you can publish PowerCubes and their data sources, without using Framework Manager as an intermediary.

The following sections describe the known issues and limitations associated with using PowerCubes in Reporting.

## Not Yet Optimized IBM Cognos PowerCubes May Open Slowly

If PowerCubes created with previous versions of Transformer take too long to open in the IBM Cognos studios, we recommend that you run a command line utility named `pcoptimizer`, supplied with IBM Cognos Analytics, to improve run-time performance.

This optimization utility is suitable for older PowerCubes when the model no longer exists or the data used to build the PowerCube is no longer available. It is not necessary to run this command line utility for cubes created in Transformer version 8.x. and later versions.

### Procedure

1. Back up your target PowerCube, then navigate to the *install\_location/bin* directory.
2. On Microsoft Windows, open a command line window and run `PCOptimizer.exe`.
3. On UNIX/Linux, enter the following line to run the optimization command line utility:

```
pcoptimizer [-t] [-v] [-h]
cubename
```

where *cubename* is the fully qualified PowerCube or time-based partitioned control cube name with the `.mdc` extension, if the PowerCube resides in the same location as `pcoptimizer`. Otherwise, *cubename* is the full path with the `.mdc` extension.

**Note:** This method only supports metadata extraction. To set up user-configurable drill-through, you must use Transformer. Wildcard character support is not currently available. You must therefore invoke the utility once per PowerCube. If *cubename* is not provided, the program enters an interactive mode, prompting you for a PowerCube name and accepting keyboard input. The optional parameters are as follows:

- `-t` or test mode; it tests whether the metadata was extracted and loaded into the PowerCube. The return code indicates the status.
  - 0 if the metadata was extracted and loaded
  - 10 if the metadata was not loaded
  - 20 if an error occurred while accessing the PowerCube
- `-v` or verbose mode; text is output to standard output (stdout), indicating what was done, including any error messages. If running in interactive mode, `-v` is assumed. All text is output in English only.
- `-h` for command-line help; if *cubename* is not provided, it prints the usage and options to the screen.

## Ragged or Unbalanced Hierarchies Result in Unexpected Behavior

In ragged or unbalanced hierarchies, some members that are not at the lowest level of the hierarchy may have no descendants at one or more lower levels. Support for these hierarchy gaps in relational sources is limited.

For OLAP sources, more complete support is provided, but some reports might result in unexpected behavior:

- Groups corresponding to missing members may appear or disappear when grouped list reports are pivoted to a crosstab. This happens with set expressions using the filter function, and detail filters on members.
- Ragged and unbalanced sections of the hierarchy are suppressed when set expressions in that hierarchy are used on an edge.
- When a crosstab is sectioned or is split into a master-detail report, sections corresponding to missing members become empty.

Some of these behaviors might be corrected in a future release, while others might be codified as a supported behavior. To prevent these behaviors, avoid the scenarios described in the previous paragraph.

The following scenarios are believed to be safe:

- one or more nested level references on an edge, with no modifying expression.
- a hierarchy reference on only one level of one edge.
- one or more explicit members or sets of explicit members as siblings on only one level of one edge.
- summaries of the previous three scenarios.

In all cases, reports based on ragged and unbalanced hierarchies should be tested to confirm that hierarchy gaps are handled correctly.

## Unable to Open the Great Outdoors Sales.mdl Sample Model and Generate Cubes

If your setup information for the Great Outdoors Sales.mdl is incorrect, you will be unable to open the sample model for Transformer, Great Outdoors Sales.mdl, or generate cubes.

To avoid this problem, set up Great Outdoors Sales.mdl using the following steps:

### Procedure

1. Modify the Cs7g.ini to contain [Databases] connections.  
The Cs7g.ini file is located in the *install\_location*/cs7Gateways/bin directory.
2. Open ODBC Data Source Administrator and create a new ODBC data source named great\_outdoors\_warehouse to connect to the SQL server database, GOSALESDW, which is provided with the sample installation.
3. Connect using a valid user ID and password for SQL Server authentication.
4. Open the model.

## Unable to Publish a PowerCube

If you try to publish a PowerCube and the publish action fails, check that the Microsoft Windows data source location for the PowerCube is correct.

If the location is not specified correctly, as is the case with the English version of the sample Sales and Marketing PowerCube, you cannot publish the PowerCube.

### Procedure

1. Right-click the PowerCube and click **Properties**.
2. On the **Data Source** tab, in the **Windows location** property, ensure that the data source location specified for the PowerCube is entered correctly.  
For example, the location for the English version of the sample sales\_and\_marketing.mdc file should be *installation\_location*\webcontent\samples\datasources\cubes\PowerCubes\EN
3. To publish the PowerCube, right-click the PowerCube and click **Publish PowerCube as Data Source and Package**.

Note that because the sample PowerCubes have already been published, it is not recommended that you republish them. Republishing a sample PowerCube may cause the reports that are based on the PowerCube to fail. If you want to republish a sample PowerCube, republish it using a different name.



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## Chapter 9. Problems affecting multiple components

In this section, you can find information about issues that affect multiple components of IBM Cognos Analytics.

### Unable to load requested view

---

This error message might occur in different situations when IBM Cognos Analytics cannot display a view.

In addition to the error message, the problem manifestations can be the following:

- The IBM Cognos Analytics web portal fails to load fully.
- The user interface (UI) loads, but you cannot see anything in the **Content** folders.
- The cognosserver.log file reports the following error:

```
ERROR com.ibm.bi.content.appres.palettes.CmPaletteRepository [Default
Executor-thread-7741] [SessionID] LoginUser-1031807645 [RequestID] /v1/
palettes/public content-service 15287 error listing public palettes
java.lang.NullPointerException: null
```

For more information, see [log messages](#).

The error might have the following causes:

- Issue with a browser cache.
- Incompatible IBM Cognos Analytics extensions.
- Faulty customizations.
- Index synchronization issues.
- Fragmented hard disk.

### Resolving the problem

#### When the problem is occasional

- Refresh the web page with IBM Cognos Analytics.
- Restart IBM Cognos Analytics.
- Clean the cache of your browser and restart IBM Cognos Analytics.
- Run [Cognos Analytics with customized extensions and views disabled](#).

#### When the problem is persistent

- Check IBM Cognos Analytics extensions for incompatibilities. For more information, see [Accelerator Catalog](#) (<https://IBM.biz/acccatalog>) and [Creating extensions](#).
- Run a [content store consistency check](#).
- Install the latest fix pack for IBM Cognos Analytics from [IBM Fix Central](#) (<https://www.ibm.com/support/fixcentral>).
- Schedule a routine maintenance to run disk defragmentation or to restart the server at some time intervals.

---

### CAF-WRN-2082 An error has occurred

You work with IBM Cognos Analytics, and you receive an error message that provides no details of the cause of the problem.

For example, such a message can be as follows:

CAF-WRN-2082 An error has occurred. Please contact your administrator. The complete error has been logged by CAF with SecureErrorID:2021-06-20-12:43:17.530-#221

Users cannot see the error details because the **secure error messages** is enabled by default in IBM Cognos Application Firewall (CAF). As a result, all sensitive information in error messages is hidden.

## Resolving the problem

You have the following two options to view the full details of the error message:

- View full details for secured error message in log files in on-premises installation.
  1. In a text editor, open the file `cogaudit.log` or `cognosserver.log` in the directory `install_location/logs`.
  2. In the file, search for entries with timestamp and number of the CAF-WRN-2082 message. In the example of the message, the timestamp is 2021-06-20-12:43:17.530, and the number is 221. The original detailed error message begins after "Original Error:".
- Ask the administrator to grant you access to the **Detailed Errors** capability. Then, you will be able to see detailed error messages in a browser.

You need the **Execute** permission in the **Custom** permission level. For more information, see [Setting access to user capabilities](#).

## XQE-PLN-0355 filter join optimization error

---

The XQE-PLN-0355 filter join optimization error might occur in IBM Cognos Analytics versions 11.1.6 and 11.1.7.

In Cognos Analytics 11.1.6, the error message reads:

XQE-PLN-0355 Filter join optimization between 'Query1' and 'Query2' is not applied because more than 10,000 values are needed.

In Cognos Analytics 11.1.7, the message is slightly different:

XQE-PLN-0514 Filter join optimization between 'Query1' and 'Query2' is not applied because more than 10,000 values are needed. Either disable the optimization by modifying the 'Filter type' attribute of the join to 'Default' or 'None', or filter values from 'Query1'.

Both errors are associated with the **Filter Type** property of a join between query subjects (or between two queries). The property is defined to optimize join processing. However, in some cases, the optimization can cause out-of-memory issues or even lead to slower join processing. The error indicates that the number of joined values of the join would exceed the limit of 10000. To avoid this error, either disable the optimization or define a filter for the "one-side" entity of the join so that the number of joined values does not exceed 10000.

You can specify the **Filter Type** property in data modules, the Framework Manager user interface, Framework Manager Software Development Kit, and [Cognos Analytics - Reporting](#).

## XQE-PLN-0539 error

---

An XQE-PLN-0539 error message occurs when dimensional and relational models are referenced in the same query, which is not supported in Cognos Analytics.

For example, you may see this message:

```
XQE-PLN-0539 The query 'Query1' is not supported. It references both 'Relational' and 'OLAP' model objects.
```

A Framework Manager Package or a Cognos Analytics Data Module may combine relational data sources and multidimensional data sources. When you create a table or a visualization that references data, a query is created. If your query references objects from both a relational data source and a multidimensional data source, the XQE-PLN-0539 error message is generated during query validation.

**Tip:**

- Examples of relational data sources are: uploaded files, data sets, MS SQL, and DB2.
- Examples of multidimensional (OLAP) data sources are: PA, DMR, and MSAS.

**Solution**

To resolve the issue, start Cognos Analytics Reporting and split the query into two separate queries: one that references the dimensional model and another one that references the relational model. You can reference relational objects and multidimensional objects in separate queries within the same report or dashboard.

## XQE-PLN-0551 incompatible data types error

---

The XQE-PLN-0551 incompatible data types error can occur when an IF-THEN-ELSE expression against a multidimensional data source returns different data types than the then and else clauses.

**Example of an invalid expression**

You may see an error message that looks like this:

```
XQE-PLN-0551 The second and third arguments have incompatible data types for function: 'if
(caption(
children([WorldSales].[region].[region]->:[TMR].[region].[region].[World])
) = 'Europe') then ('Hello Europe') else
([WorldSales].[region].[region]->:[TMR].[region].[region].[Americas]))'.
```

In this case, the then clause returns a string but the else clause returns a member. The member is coerced into a value expression by transforming it into a tuple value, which is assumed to return a numeric value.

**Solution**

When the XQE-PLN-0551 error occurs, you should review both the then and else arguments and ensure that they are of the same data type.

**Example of a valid expression**

This modified expression will not fail:

```
if (caption( children([WorldSales].[region].[region]->:[TMR].[region].[region].[World]) )
= 'Europe')
then ('Hello Europe')
else ( caption([WorldSales].[region].[region]->:[TMR].[region].[region].[Americas]))
```

**Note:** By wrapping Americas in a caption, you ensure that the else clause also returns a string.

Here are some other factors to consider when the XQE-PLN-0551 error message appears:



- CASE-WHEN-THEN-ELSE and other conditional expressions are transformed by the query planner into IF-THEN-ELSE expressions.
- In an IF-THEN-ELSE expression, the second and third arguments support only these data types: numeric, text, and datetime. If the second and third arguments of an IF-THEN-ELSE expression are of any other data type, the query planner attempts to coerce them into supported data types. These attempt may not be successful.
- The coercion may result in data types that you don't want. Therefore, the best practice is to ensure that both the then and else clauses return the same data type and that the data type is supported.

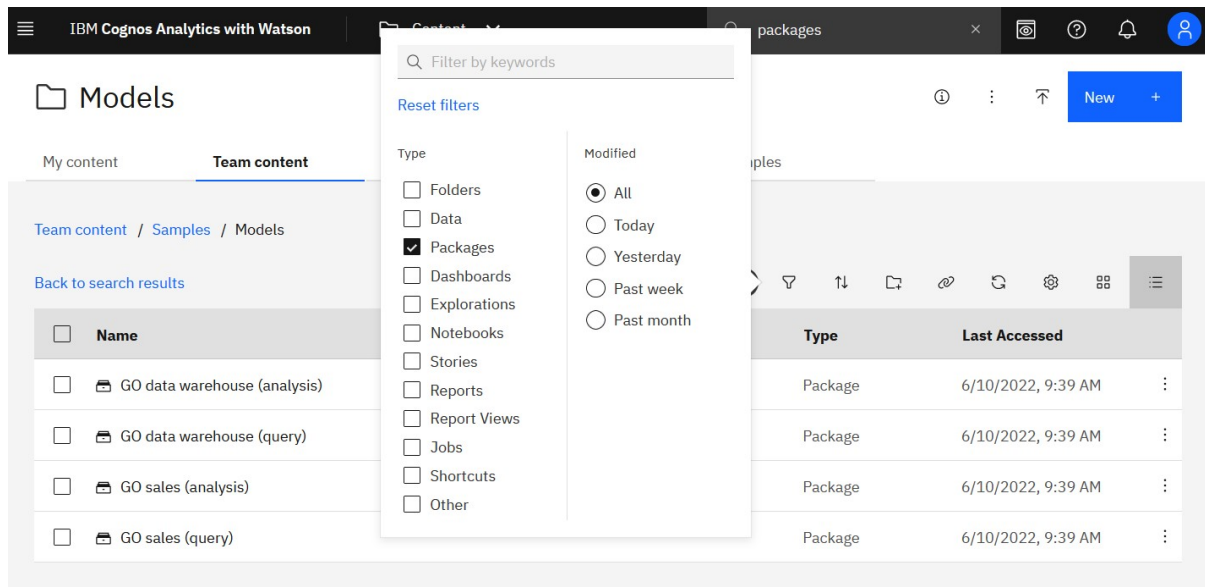
## Unexpected sorting of packages after upgrading from 11.1.7

In Cognos Analytics 11.1.7, packages and folders were sorted together alphabetically. However, after you upgrade to IBM Cognos Analytics 11.2.x, you may be surprised to see that packages are sorted independently of folders. Folders appear at the top of the list and packages are listed after the folders.

This change in sorting behavior is intended as a navigation aid for users who are familiar with both viewing folders at the top of the list and with sorting their computer files by discrete file types.

### Tips:

- You can sort your entries by type. Click the Sort icon , and then select **Type**.
- You can also filter entries by type. For example, click the Filter icon , and then select **Packages**.



## XQE-DAT-0001 Data source adapter error because of job aborted due to stage failure

This error message might occur when you work with data sets and uploaded files in dashboards or reports in IBM Cognos Analytics.

For example, the following message might be displayed:

```
XQE-DAT-0001 Data source adapter error: GeneralException(requestId:86dc5f58-a4ca-4016-ab29-763d7cb6c02e, message:Job aborted due to stage failure: Task 0 in stage 102.2 failed 1 times, most recent failure: Lost task 0.0 in stage 102.0 (TID 89, localhost, execute driver):java.lang.UncheckedException at
```

The cause of the problem might be the following issues associated with the configuration of the Cognos Analytics temporary (temp) folder:

- Wrong location of the folder.
- Insufficient permissions to access the folder.
- Not enough free space on disk to write temporary files to the folder.

### Resolving the problem

- For each installation of Cognos Analytics in your environment, ensure that you specify correct **Temporary files locatotion** in IBM Cognos Configuration.

1. Start IBM Cognos Configuration.
  2. In the **Explorer** window, click **Environment**.
  3. In the **Properties** window, for the **Temporary files location** property, specify the correct location of the temp folder.
- Ensure that Cognos Analytics users have the permissions to access the temp folder that are required by the operating system.
  - Ensure that the disk has enough free space for writing temporary files.

## WebGL-related problems with maps in Firefox

---

You might encounter problems with map rendering in dashboards, reports, and stories in the Firefox browser on Windows.




These problems manifest themselves with an error message that appears instead of the map that you place on the canvas.

### Resolving the problem

Map rendering in IBM Cognos Analytics requires that your browser supports Web Graphics Library (WebGL) for Cognos Analytics releases 12.0.2 and earlier, and WebGL 2 for later releases.

To solve the problem update the browser to the latest release and ensure that WebGL, WebGL 2, or both are enabled in Firefox configuration.

To enable the libraries in the configuration:

1. Open a new tab in Firefox browser.
2. Go to Firefox configuration:
  - a. In the new tab, in the address bar, enter `about:config`.
  - b. If the message **Proceed with Caution** appears, click the **Accept the Risk and Continue** button.
3. Enable WebGL:
  - a. In the **Search preference name** field, type `webgl.disabled`.
  - b. If the value for this preference is **true**, click the **Toggle** icon  to change the value to **false**.
  - c. In the **Search preference name** field, type `webgl.force-enabled`.
  - d. If the value for this preference is **false**, click the **Toggle** icon  to change the value to **true**.
4. Enable WebGL 2:
  - a. In the **Search preference name** field, type `webgl.enable-webgl2`.
  - b. If the value for this preference is **false**, click the **Toggle** icon  to change the value to **true**.
5. Restart the browser.



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## Chapter 10. Troubleshooting resources

Learn about sources of information that can help you resolve a problem in IBM Cognos Analytics.

The following checklist might guide you to the problem resolution, or help you collect the diagnostic data that you can share with IBM support.

Table 8. Checklist actions	
Actions	Description
Check if a product fix is available to resolve your problem.	Apply all known <a href="#">fix packs</a> , or service levels, or program temporary fixes (PTF).
Ensure that the configuration is supported.	Review the information in the <a href="#">Supported Software Environments page</a> .
Reproduce the problem using the product samples.	Samples can be an excellent learning tool as well as troubleshooting tool. If everything works fine with the samples, but not in your application, the issue could be with your design. If a defect is found, reproducing it with <a href="#">product samples</a> and supplying the test case to IBM support will speed up the APAR logging and defect resolution process.
Ensure that the installation was successfully finished.	The installation location must contain the appropriate file structure and file permissions. For example, if the product requires write access to log files, ensure that the directory has the correct permission.
Review all relevant documentation and technotes.	Try to determine whether your problem is known, has a workaround, or is already resolved and <a href="#">documented</a> .
Review recent changes in your computing environment.	Sometimes installing new software, updating existing software, or applying OS patches might cause compatibility issues.

If the items in the checklist did not guide you to a resolution, you can share the collected diagnostic data with an IBM customer support representative who will assist you in resolving the problem.

### IBM Support portal

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The IBM Support portal is a unified, centralized view of all technical support tools and information for all IBM systems, software, and services.


The [IBM Support portal](#) lets you access all the IBM support resources from one place. You can tailor the pages to focus on the information and resources that you need for problem prevention and faster problem resolution.

### Documentation

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IBM Documentation includes the documentation for each supported release of IBM Cognos Analytics.

[Cognos Analytics documentation](#) ([www.ibm.com/docs/en/cognos-analytics](http://www.ibm.com/docs/en/cognos-analytics)) includes English and translated versions. Click the different tiles to access the documentation for different Cognos Analytics releases.

The documentation is also available from the context-sensitive **Learn** pane  in the product.

## Cognos Analytics community

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IBM Cognos Analytics community offers a place to share ideas and solutions with your peers.

Active Cognos forums are available at [IBM Business Analytics Community](https://community.ibm.com/community/user/businessanalytics/home) (<https://community.ibm.com/community/user/businessanalytics/home>).

## RSS feeds

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IBM Software Support RSS feeds are a quick, easy, and lightweight format for monitoring new content added to websites.

After you download an RSS reader or browser plug-in, you can subscribe to IBM product feeds at [IBM Support site](#). When you subscribe to product notifications, you are provided with RSS/Atom feed links.

## Error messages

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The first indication of a problem is often an error message. Error messages contain information that can be helpful in determining the cause of a problem.

You can click the Details link to see the full error message. The administrator can use this information, as well as other information about what product you are using and what you did before the error message displayed, to resolve an issue.

If you click OK in response to the error message, IBM Cognos Analytics undoes the last action and returns to the previous state.

## Log files

---

Log files record the activities that take place when you work with a product, and can be an effective resource when you try to resolve a problem.

Operations performed in IBM Cognos Analytics are recorded in various log files for tracking purposes. For example, if you experienced problems installing the product, consult the transfer log file to learn what activities the installation wizard performed while transferring files.

Before you begin viewing log files, ensure that they contain the information that you need by setting the proper logging levels for each category. For more information, see [Logging levels](#).

The following sections provide more information about the Cognos Analytics log files:

### Transfer log file

This file records the components you installed, disk space information, the selections you made in the transfer dialogs, and any errors the installation wizard encountered while transferring components. It also records the activities that the installation wizard performed while transferring files.

The transfer log file is located in the *install\_location\uninstall\logs* directory. The file name includes the product name and time stamp. The following example shows the file name format:  
`IBM_Cognos_Analytics_Install_08_23_2021_16_40_27.log`

### Configuration log file

The `cogconfig.log` file is created by default in the *install\_location\logs* directory. Use the `-d` option to enable debug logging in this file.

This log file records configuration activities during the installation process. For example, it reports the available port for the dispatcher.

For more information, see [IBM Cognos Configuration command-line options](#).



## Run-time log files

Cognos Analytics supports the following types of run-time logging: audit logging, diagnostic logging, user session logging, and report performance logging.

Some log messages indicate problems. Most messages provide information only, but can help to diagnose problems in your run-time environment.

By default, the Cognos Analytics service for each installation sends information to the local *install\_location*\logs directory. The audit messages are sent to the *cogaudit.log* file, and other various component diagnostics are sent to files such as *cognosserver.log*, *dataset-service.log*, *p2pd\_messages.log*, *xqelog\*.xml*, and other log files. Other diagnostics can be enabled in **Manage > Configuration > Diagnostic logging**. For more information, see [Diagnostic logging](#).

The audit logs can be configured to also write to a database, remote log server, or system log. For more information, see [Log message repositories](#).

## Gateway log file

For SSO scenarios, the gateways record errors in the gateway log files in the *install\_location*\logs directory.

The gateway log files use the *gwgateway\_interface.log* naming convention, where *gateway\_interface* is *cgi*, *mod2* (Apache 2.0 module), or *isapi*. For example, *gwcgi.log*.

If Cognos Analytics is configured to use the ISAPI module on IIS, the *gwisapi.log* is by default created in the logs directory.

By default, the gateway log file is not created until the gateway module is instantiated. In some cases, gateway logging needs to be enabled separately. For more information, see [this article](#).

You can use the gateway log file to troubleshoot problems that prevent the gateway from processing requests or using encryption. Symptoms of these problems can be as follows:

- User IDs and passwords do not work.
- Single signon does not work.
- The dispatcher is running, but the user receives an error message advising that the Cognos Analytics server is not available.

## Uninstallation log file

This file records the activities that the uninstall wizard performed while uninstalling files. The log file is named *cognos\_uninst\_log.htm* and is located in the Temp directory. You can use the log file to troubleshoot problems related to uninstalling IBM Cognos Analytics components.

## Silent mode log file

This file records activities that IBM Cognos Configuration performed while running in silent mode. This log file is named *cogconfig\_response.csv* and is located in the *install\_location*\logs directory.

## Core dump files

---

If you receive an error message about the report server not responding, IBM Cognos Analytics wrote a core dump (.dmp) file to the file system.

Core dump files indicate a serious problem with the program, such as an unhandled exception or an IBM Cognos Analytics process that terminated abnormally. Core dump files create a complete memory dump of the current state of the program when the problem occurs. The core file usually indicates a bug that requires a software fix.

If you see the report server not responding message, immediately check the \bin directory of the Cognos Analytics server installation for any core dump files. On Windows, these files are named *processID.dmp*,

such as `BIBusTKServerMain_seh_3524_3208.dmp`. On UNIX, the files are named `core`. On Linux, the files are named `core.processID`. These binary files must be viewed with a debugging program such as `dbx`, GNU debugger, or the WinDbg debugger for Windows.

The query service can also create a core header file with the high level details of the crash, as well as a Java core file. These files are located in the `install_location/wlp` folder.

If your server administrator cannot solve the problem, contact IBM support and provide them with a test case, if possible, and the core files.

Core files can be 300 MB or more, and a new one of the same size is created each time that the problem occurs. In Windows, the files should be checked and cleaned regularly, during regular server maintenance. In UNIX and Linux, system settings can control how and when the core file is written to the file system when a process abnormally terminates.

In Windows, you can use a configuration file to turn off the creation of `.dmp` files. In a production environment, you can then enable core dumps when you encounter problems. Because not all problems are easy to reproduce, core file creation should be enabled in your testing and development environment so that you can use them.

With some Cognos Analytics hotsite builds, core dump files are automatically created. During an upgrade, configuration settings are not overwritten.

## Stop creating core dump files

You disable the creation of core dump files in Cognos Analytics.

### Procedure

1. On the server where IBM Cognos Analytics is installed, open the `cclWinSEHConfig.xml` file from the `install_location\configuration` directory.
2. In the configuration element, change the value of the environment variable setting to 0 (zero) so that it reads

```
<env_var name="CCL_HWE_ABORT" value="0"/>
```

3. Save the file.

## Fix Central

---

Fix Central provides fixes and updates for your software, hardware, and operating system.

Use the pull-down menu to navigate to your product fixes on [Fix Central](#). You may also want to view [Fix Central help](#).

## Fix packs, interim fixes, and test fixes

An Authorized Program Analysis Report (APAR) is a formal report of a problem caused by a suspected defect in a current unaltered release of an IBM program. APARs describe problems found during testing by IBM, as well as problems reported by customers.

The modified Cognos Analytics code that resolves the problem described in the APAR can be delivered in fix packs, interim fixes, and test fixes.

### Fix pack

A fix pack is a cumulative collection of APAR fixes, internal fixes, new features, and conformance points. In particular, fix packs address the APARs that arise between new releases of Cognos Analytics. They are intended to allow you to move up to a specific maintenance level. Fix packs have the following characteristics:

- They are cumulative. Fix packs for a particular release of Cognos Analytics supersede or contain all of the APAR fixes shipped in previous fix packs and interim fixes for that release.
- They are available for all supported operating systems and Cognos Analytics products.
- They contain several APARS.
- They are published on the Cognos Analytics Technical Support website and are generally available to customers who have purchased products under the Passport Advantage® program.
- They are fully tested by IBM.
- They are accompanied by documentation that describes changes to the products, and how to install and remove the fix pack.

**Note:** The status of an APAR is changed from **Open** to **Closed as program error** when the APAR fix is provided in a fix pack or before major releases. You can determine the status of individual APARs by examining the APAR descriptions on the Cognos Analytics Technical Support website.

## Interim fix

An interim fix is a cumulative collection of important APAR fixes that arise between fix packs. To qualify for inclusion in an interim fix, an APAR must be considered pervasive or otherwise important. Candidate APARs are evaluated and approved by experts on the Cognos Analytics technical support team. Interim fixes have the following characteristics:

- They are cumulative. Interim fixes for a particular release of Cognos Analytics supersede or contain all of the APAR fixes shipped in previous fix packs and interim fixes for that release.
- They usually contain one or more APARS.
- They are published on Fix Central, but customers must request access to interim fixes.
- A subset of operating systems is available on Fix Central, but all supported platforms are created.
- They are fully tested by IBM.
- They are accompanied by documentation that describes how to install and remove the interim fix.

Interim fixes are available as needed after the release of a new version or fix pack and are intended as the preferred alternative to test fixes, which do not receive the same level of testing or enjoy the same level of support as interim fixes.

## Test fix

A test fix is a temporary solution that is supplied to specific customers for testing in response to a reported problem. Test fixes are sometimes referred to as "special builds" and they have the following characteristics:

- They usually contain a single APAR.
- They are obtained from Cognos Analytics Support and are not generally available to the public.
- They undergo limited IBM testing.
- They are not supported in the customer's production environment unless approved by IBM. Test fixes are typically provided for issues that only happen in the customer's environment and cannot be reproduced in IBM support and development's environment.
- They include minimal documentation, including a description of how the test fix should be applied, the APARs it fixes, and instructions for the removal of the test fix.

Test fixes are supplied in situations where a new problem has been uncovered, there is no workaround or bypass for the problem and you cannot wait until the next fix pack or interim fix becomes available. For example, if the problem is causing critical impact on your business, a test fix might be provided to alleviate the situation until the APAR is addressed in a fix pack or interim fix.

To help ensure problem-free operation, keep your Cognos Analytics environment running at the latest fix pack level. To be notified of the availability of new fix packs, go to the **My notifications** page on the IBM Support website. You can edit your subscription settings to choose the types of information you want to

get notification about, for example, security bulletins, fixes, troubleshooting, and product enhancements or documentation changes. For a list of fix packs, see <https://www.ibm.com/support/fixcentral/>.

## Microsoft Windows Event Viewer

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Microsoft Windows Event Viewer provides information about program, security, and system events. For example, if an IBM Cognos Analytics service fails to start, this fact is recorded in the event log.

Microsoft Windows Event Viewer does not record information that is specific to operations or tasks performed in IBM Cognos Analytics. Consult the [log files](#) for these problems.

For information about how to use Windows Event Viewer, see the Windows help.

## Samples

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Samples can be an excellent learning tool as well as troubleshooting tool.

You can use the samples that come with IBM Cognos Analytics to determine if various components are working together as expected. For example, if you are having a problem running a report, you can try running a sample report to see if the problem persists. If everything works fine with the sample, but not in your application, the issue could be with your design.

If a defect is found, reproducing it on samples and supplying the test case to IBM support will speed up the APAR logging and defect resolution process.

For more information, see the [Samples guide](#).

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