CA Service Desk Manager

CA CMDB r12.7and CA Configuration Automation r12.8 Integration Guide

CA Product References

This document references the following CA Technologies products:

- CA Service Desk Manager (CA Service Desk Manager)
- CA CMDB (a component of CA SDM)
- CA Configuration Automation formerly known as CA Application Configuration Manager (CA ACM)
- CA Business Intelligence

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Contents

Chapter 1: Introduction

This section contains the following topics:

What this Document Covers

This document provides the following information:

- How you use CA Business Intelligence r3.2, or r3.3 SP1 to integrate CA SDM r12.7 and CA Configuration Automation r12.8.

  Note: Use any instance of CA Business Intelligence in your environment, but we recommend that you use the instance where you deploy CA Configuration Automation reports.

- How to install and configure the integration patch.

- How to configure and use the CA CMDB Export report and GRLoader with CA Business Intelligence r3.2 or r 3.3 SP1 to extract, transform, and load data from CA Configuration Automation to CA CMDB.

- System requirements

- Installation considerations

This integration lets you export Configuration Item (CI) data from CA Configuration Automation to CA CMDB for change impact analysis and root cause analysis. CA Configuration Automation r12.8 now employs the standard CA Business Intelligence reporting engine. As a result, it requires the *CA CMDB Export* report in CA Business Intelligence r3.2, or r2.3 SP1 to complete the integration successfully.

Audience

This document contains information intended for administrators who want to configure CA Business Intelligence r3.2, or r3.3 SP1 to leverage key CA Configuration Automation r12.8 data in the CA CMDB module of CA SDM r12.7. This document assumes that you are familiar with the following processes:

- How to perform CA Business Intelligence administration tasks including scheduling reports, adding users to BusinessObjects groups, configuring Destination Servers to support destinations for example, FTP, creating and using Events.

  Note: For more information about scheduling reports and configuring destination servers, see the *CA Business Intelligence Administration Guide*.

- How to use GRLoader.jar and the ApplyPTF utility

  Note: For information about using GRLoader, see the *CA CMDB Technical Reference Guide*.

- How to perform system administration for the Windows and UNIX platforms.

Hardware and Software Requirements

CA Business Intelligence (BusinessObjects XI) r3.2, or r3.3 SP1, CA SDM r12.7, and CA Configuration Automation r12.8 support a number of hardware, software, operating systems, and databases. CA Technologies supports each component for the duration of its lifecycle (as determined by its manufacturer) or until CA Technologies announces that we no longer support it.

Note: For complete information about hardware, software, operating systems, and database requirements, see the supported platforms documentation for CA Business Intelligence r3.2, or r3.3 SP1, CA SDM r12.7, and CA Configuration Automation r12.8.

Integration Overview

CA Business Intelligence r3.2 or r3.3 SP1 provides the integration of the CA CMDB component of CA SDM r12.7 with CA Configuration Automation r12.8. CA Business Intelligence deploys the *CA CMDB Export* report that delivers an XML file that contains the CA Configuration Automation information, which is then loaded into CA CMDB using the GRLoader. GRLoader is a CA CMDB utility that lets you create or update a CI and its relationships in your Mangement Database (MDB). GRLoader maps CA CMDB families, classes, and relationships to CA Configuration Automation object types through the GRLoader. CA SDM r12.7 installs GRLoader automatically.

Important! You *must* install CA Business Intelligence for this integration to operate successfully.

The following information and diagram provide a summary of how the integration works:

1. CA Configuration Automation discovers CIs and CI relationships, such as the Server CI, NIC CI, Component CI, and Hard Drive CI.

2. Deploy the *CA CMDB Export* report in CA Business Intelligence to extract CI data from the CA Configuration Automation database.

3. Schedule the GRLoader utility to wait for the event that is generated when CI data in XML format is ready to be loaded.

   GRLoader loads the XML data from CA Configuration Automation to CA CMDB.

4. Schedule the *CA CMDB Export* report to a destination.

   GRLoader uses this destination and waits for an event generated by a successful generation of the XML file and loads it into CA CMDB.

   Note: GRLoader does not send email notification by default, but you can optionally configure the email or file system of the destination server to send a notification to a user that you specify. After BOXI_GRLoader schedules successfully, the output is sent to the user as an email notification.

After you complete the integration, you can launch CA Configuration Automation in-context of a CI from CA CMDB. You view the CI details in CA CMDB and launch CA Configuration Automation from a URL you configure in CA SDM r12.7.

Integration Considerations

Consider the following information before you begin the integration:

- If you have previously used the CA Cohesion product, CA Cohesion ACM r5.0 and CA Configuration Automation r12.8 are different products with different architectures. The data that these two products discover may also differ. Duplicate data may appear in CA CMDB after migrating from the CA Cohesion ACM r5.0 system to the CA Configuration Automation r12.8 system. To manage these duplications, use the CA CMDB TWA, the CMDB ambiguity Index features, and other CMDB advanced reconciliation features.

- You installed and configured CA Business Intelligence r3.2, or r3.3 SP1 CA Service Desk Manager r12.7, and CA Configuration Automation r12.8 successfully.

  Important! You *must* upgrade CA Configuration Automation to r12.8 before executing the integration installer.

  Note: We recommend that you use the CA Business Intelligence instance where you deployed CA Configuration Automation r12.8 reports, but you can configure this integration on a separate CA Business Intelligence instance if you want.

- CA Cohesion ACM r5.0 sometimes stores server names *without* the fully qualified domain. CA Configuration Automation r12.8 always stores server names with fully qualified domain names. In these situations, duplicates could be created in CA CMDB after CIs are imported from CA Configuration Automation r12.8. To avoid this situation, the administrator can manually change all Cohesion r5.0 server names to the fully qualified (with domain) server names in Cohesion r5.0. After completing these tasks, run the CA CMDB Export Report again on Cohesion r5.0 to extract and import all CIs and their relationships into CA CMDB. Alternatively, use the TWA to store CI information from Cohesion r5.0, and SQL scripts run to change the system_name fields in the records to the fully qualified domain names. After this step, the records can be imported into CA CMDB.

- You inactivated the management data repository (MDR) for CA Cohesion ACM r5.0 if you are migrating to CA Configuration Automation r12.8

  Important! Do not change the previous CA Cohesion ACM r5.0 MDR definition to turn it into the CA Configuration Automation r12.8 MDR. You *must* inactivate the r5.0 MDR and create a new r12.8 MDR definition to enable cleanup of unused resources.

  Note: If you want to retain both CA Cohesion ACM r5.0 and CA Configuration Automation r12.8 as active MDRs, do *not* inactivate the CA Cohesion ACM r5.0 MDR.

- You created and activated an MDR for CA Configuration Automation r12.8.

  Note: This MDR defines a URL for launching a CA Configuration Automation CI from CA CMDB.

  Note: If you want to execute GRLoader from a remote system that does *not* have CA CMDB installed, see the Appendix.

- You installed the SQL Server or Oracle client on the CA Business Intelligence system.

- You downloaded the integration patch that contains the following files:

  CCA_CMDB_Report.biar

  Contains the CCA to CMDB Export Group, the CA CMDB Export Report, the BOXI_GRLoader.jar file, the CA Business Intelligence Universe, and the Universe Connection. You import this file to the computer that contains CA Business Intelligence.

  Important! You *must* add users (in CA Business Intelligence) to the CCA to CMDB Export Group who are responsible for executing the CA CMDB Export Report. When you add users to this group, they have full control to access the CA CMDB Export Report, the CCA_CMDB universe, and CCA_CMDB connections on importing the BIAR file. For more information about adding users to groups in CA Business Intelligence, see the *CA Business Intelligence* r3.2, or r3.3 SP1 *Administration Guide*.

  CCA_CMDB_DBSCRIPTS_MSSQL.zip

  Contains the SQL Server scripts that create the necessary tables, views, and insert statements to populate the required tables. You execute these scripts on the CA Configuration Automation database.

  CCA_CMDB_DBSCRIPTS_ORCL.zip

  Contains the Oracle scripts that create the necessary tables, views, and insert statements to populate the required tables. You execute these scripts on the CA Configuration Automation database.

  CAFApp.war

  Specifies the WAR file that you deploy in the Web Application Server used by CA Business Intelligence to generate the Prompt Page for the CA CMDB Export Report. This file is deployed on the CA Business Intelligence application server, for example the *%BusinessObjects%/tomcat/webapps* folder.

  CAFApp.xml

  Specifies the configuration file for the deployed WAR file. This file is deployed on the CA Business Intelligence server in the *%BusinessObjects%/cacaf* folder.

(Optional) Consider the following scenarios when configuring the GRLoader environment variables (see page 61):

- If you do not want CA Business Intelligence to run the GRLoader, schedule the CA CMDB Export report and copy the report-generated XML file into the CA CMDB computer and execute the GRLoader manually.

- If CA CMDB and CA Business Intelligence are not installed on the same computer, run GRLoader remotely to configure GRLoader on the CA Business Intelligence computer, and configure BOXI_GRLoader to schedule the program object to execute the GRLoader

- If CA CMDB and CA Business Intelligence are on the same computer, configure BOXI_GRLoader.jar.

Inactivate the CA Cohesion CCA r5.0 MDR

If you want to import CIs and relationships from CA Configuration Automation to CA CMDB, and if you are using CA Cohesion ACM r5.0 already, inactivate the CA Cohesion ACM r5.0 MDR in CA SDM.

Note: This action deactivates all the Federated CI Mappings for CA Cohesion ACM r5.0. View the Federated CI Mappings list in the Federated CI Mapping node in the Administration tab.

Important! If you want to retain both CA Cohesion ACM r5.0 and CA Configuration Automation r12.8 as active MDRs, do *not* inactivate the r5.0 MDR. CIs imported from CA Configuration Automation r12.8 reconcile to existing CIs imported from CA Cohesion ACM r5.0. For those CIs that are imported from both CA Configuration Automation r12.8 and CA Cohesion ACM r5.0, both of these MDRs appear as MDR buttons on the CI detail page.

Follow these steps:

1. From the Administration tab, navigate to CA CMDB, MDR Management, MDR List.

   The MDR List appears.

2. Open the MDR that you want to deactivate and click Edit.

   The Update MDR Definition page appears.

3. From the Active drop-down list, select Inactive and click Save.

   The MDR is inactivated.

Create a CA Configuration Automation r12.8 MDR

Before importing CIs and relationships from the CA Configuration Automation server to CA CMDB, you define a CA Configuration Automation MDR.

In the following example procedure, the XML specifies an MDR Name of *localhost* and an MDR Class of *CCA r12.8*. These values are required before you import the CIs.

Follow these steps:

1. From the Administration tab in CA SDM, navigate to CA CMDB, MDR Management, MDR List.

    The MDR List appears.

2. Click Create New.

    The Create New MDR Definition page appears.

3. Complete the fields with the following example values:

    ■   Button Name—Enter a button label, such as **CCA-R12.8**.

    ■   MDR Name—Enter the local host name of the CA Configuration Automation server, such as **myccaserver**.

    ■   MDR Class—Enter **CCA r12.8**.

    ■   Active—Select Active from the drop-down list.

    ■   Owner—Enter **CMDBAdmin**.

    ■   Description—Enter a description about the server, such as **CCA server in Chicago**.

    ■   Hostname—Enter the hostname of the CA Configuration Automation server, such as **cca_server**.

    ■   Port—Enter the port of the CA Configuration Automation server, such as **8080**.

    ■   Path—Enter the URL path of the CA Configuration Automation server, such as **cca/CCAUI.html**.

        http://<*hostname*>:port/cca/CCAUI.html

- Parameters—Enter the parameters in the format **type=ci***{federated_asset_id}*.

  CA Configuration Automation populates the federated_asset_id in CA CMDB with the following string:

  &objtype=*object type***&name**=*name***&component**=*component name***&path=***comp_qualifier*

  The object type, name, and component name values are specific to CA Configuration Automation objects, such as in the following example parameters:

  type=ci&objtype=server&name=myserver.ca.com&component=Cohesion%20Server

- URL to launch in Context—Enter **http://{hostname}:{port}/{path}?{parameters}**

  Note: (Optional) Modify the URL syntax to handle special requirements.

  The following displays an example URL:

  http://myccaserver:8080/cca/CCAUI.html?type=ci&objtype=server&name=myserver.ca.com&component=Cohesion%20Server

4. Click Save.

   The MDR is created.

Chapter 2: Integration Configuration

This section contains the following topics:

How to Install and Configure the Integration

The following information and diagram provide a summary of how to configure the CA CMDB Export Report in CA Business Intelligence to integrate CA SDM r12.7 and CA Configuration Automation r12.8:

1. Install CA Configuration Automation r12.8 or upgrade your current version of CA Configuration Automation to r12.8.

2. (Optional) Run GRLoader from a Remote MDR before launching the integration patch installer.

3. Launch the integration patch installer (*cca-cmdb.exe*) from the dvd1 directory on the CA Configuration Automation CMDB Integration Patch distribution on the computer that has CA Business Intelligence and follow the steps in the installer.

   Note: The installer requires a JRE version of at least 1.5. You *must* set the PATH environment variable to *jre\bin* on the server.

4. The installer performs the following tasks:

   a. Imports the BIAR file that contains the BOXI_GRLoader program object, the CCA to CMDB Group, and the CA CMDB Export report that supports SQL Server or Oracle as the data source for the CA Configuration Automation r12.8 database. This file also contains the CA Business Intelligence Universe and connection properties. This report extracts data from the CA Configuration Automation database and presents it in XML format.

   b. Deploys the Client Access Framework (CAF) page WAR files to the CA Business Intelligence server. The CAF provides the prompt page for the report that captures required report parameters for the CA CMDB Export report.

   c. (Optional) Configures the email and file servers that specify which users receive a notification about the export report.

      Note: If you do not set up notifications and want to view the output of successful instances, you view the History of the object in CA Business Intelligence. Click the instance title and use any text editor to open the output. Optionally, you can configure the email and file system servers (see page 59) in CA Business Intelligence if you did not configure them during this installation.

   d. (Optional) Configures the program object in CA Business Intelligence.

      The program object provides the script that executes the report and lets you add the JAR file responsible for scheduling the report and data export.

5. Schedule the BOXI_GRLoader Program Object in CA Business Intelligence.

6. Schedule the CA CMDB Export Report in CA Business Intelligence.

   The GRLoader takes the generated XML file from the report and loads data into CA CMDB.

More information:

Install the Integration Patch

Use the CA Configuration Automation CMDB Integration installer (*cca-cmdb.exe*) to install the integration components, such as the CA Configuration Automation database connection configuration and the CA Business Intelligence configuration.

Ensure taht you meet the following prerequisites:

■ JRE version 1.5. Set the PATH environment variable to *jre\bin* on the server.

■ JDK versions 1.6.x through 1.7.x. Set the JAVA_HOME system environment variable. For example, if you install JDK1.6 at the C:\Program Files location, set the JAVA_HOME variable value to C:\Program Files\Java\jdk1.6. Also, append the JAVA_HOME path setting at the end of PATH environment variable ((Existing Path);%JAVA_HOME%\bin).

Important! Do not install the JDK version 1.6.0_29 version, because of the connectivity issues.

Important! After you complete the installation, restart the CA Business Intelligence Application Server service (such as Tomcat) and the Server Intelligence Agent. Before you restart the Application Server service, delete the CAFApp folder from the CA Business Intelligence webapps directory, for example, C:\Program Files\CA\SC\CommonReporting3\Tomcat55\webapps.

Important! If the CA Configuration Automation Server uses an Oracle database, install the Oracle administrator client on the CA Business Intelligence computer, which lets CA Business Intelligence communicate with the CA Configuration Automation database. You also configure the TNS listener to have an entry that is named "CCA" which points to the CA Configuration Automation database. CA Business Intelligence uses this name as the *datasource* name to connect to the Oracle database. If you do not perform these steps, the CA CMDB Export report execution fails on Oracle.

If you install CA Business Intelligence 3.3 SP1, then select the webapps directory that is based on the Tomcat6 or Tomcat7 directory PATH.

For example:

■ C:\Program Files\CA\SC\CommonReporting3\Tomcat6\webapps

■ C:\Program Files\CA\SC\CommonReporting3\Tomcat7\webapps

Follow these steps:

1. Launch the installer (cca-cmdb.exe) on the computer that has CA Business Intelligence.

   The CCA CMDB Integration Introduction page appears.

2. Click Next.

   The CCA Database Server page appears.

3. Select your CA Configuration Automation database (SQL Server or Oracle) from the Database Type drop-down list, complete the following fields, and click Next:

    Server Name

    Specifies the name or the IP address of the server where the CA Configuration Automation database resides. For IPv6 addresses, maximal extended form and maximal abbreviated form addresses are supported. Link local IPv6 addresses are not supported.

    Port Number

    Specifies the database listening port number. Accept the default or enter a different port number if you did *not* use the vendor-recommended default port number when you installed the database software.

    SQL Server Default: 1433

    Oracle Default: 1521

    Instance Name (Optional)

    (SQL Server only) Specifies the database instance name.

    Service Name

    (Oracle only) Specifies the Oracle database System Identifier (instance name).

    The CCA Database Configuration appears.

4. Enter the following information in the corresponding field and click Next:

    Database Name

    Specifies the CA Configuration Automation database name.

    Database User

    Specifies the user name authorized to update the CA Configuration Automation database schema.

    Database User Password

    Specifies the password for the CA Configuration Automation database user that you specified in the previous field.

    Note: Type the password again to verify that you entered it correctly.

    The installer verifies the database details by connecting to the database and verifies if it upgraded with the CMDB patch installer.

    Note: If the verification fails, an error message directs you to upgrade CA Configuration Automation before configuring the CA CMDB Export report.

    The Choose CABI Folder page appears.

5. Click Choose and browse to your CA Business Intelligence installation directory, such as the following example, and click Next:

    C:\Program Files\CA\SC\CommonReporting3

    The Choose CABI webapps Folder page appears.

6. Click Choose and browse to your CA Business Intelligence webapps directory, and click Next:

■ For example:

   ■ C:\Program Files\CA\SC\CommonReporting3\Tomcat6\webapps

   ■ C:\Program Files\CA\SC\CommonReporting3\Tomcat7\webapps

    The Configuring CABI page appears.

1. Complete the following credential information and click Next:

    Server Name

    Specifies the name of the BusinessObjects report server, such as localhost.

    Port

    Specifies the CA Business Intelligence report server listening port.

    Default: 6400

    Administrator

    Specifies the user name of the CA Business Intelligence report server administrator.

    Default: Administrator

    Administrator Password

    Specifies the password of the CA Business Intelligence administrator.

    Note: Type the password again to verify that you entered it correctly.

    System User Name

    Specifies the System user name that configures the user name of the File System, Program Object, and BOXI_GR Loader (if user selected these options during the installation) objects.

    System Password

    Specifies the password for the System User that configures the password of the File System, Program Object, and BOXI_GR Loader (if you selected these options during the installation) objects.

    Note: Type the password again to verify that you entered it correctly.

    The Configure Email page appears.

2. (Optional) Complete the following fields to configure email notification destinations for *CrystalReportJobServer*, *ProgramJobServer*, and *DestinationJobServer* and click Next:

   For Email Notifications:

   Domain Name

   Specifies the domain name of the Email server.

   Host Name

   Specifies the host name of the Email server.

   To Address

   Specifies the Email address of the user that gets an Email notification when the report runs. You can specify additional email addresses by separating each one with a semicolon (;).

   From Address

   Specifies the Email address of the user that sends an Email notification when the report runs.

   Subject

   Specifies the subject of the email sent when the report runs.

   Note: You can manually configure the email and file system servers (see page 59) in CA Business Intelligence if you did not configure them during the installation, or if you want to configure them for specific report instances in the future.

   The Configure FTP page appears.

3. (Optional) Complete the following fields to configure FTP notification for the servers *CrystalReportJobServer*, *ProgramJobServer*, and *DestinationJobServer* and click Next:

   FTP Host

   Specifies the FTP host name.

   FTP Port

   Specifies the FTP port.

   User Name

   Specifies the user name to connect to the FTP host.

   Password

   Specifies the password to connect to the FTP host.

   Note: Type the password again to verify that you entered it correctly.

FTP Account

Specifies the FTP account.

Destination Directory

Sends the output to a specific location on the FTP server.

File Name

Specifies the file name of the report file (XML).

4. (Optional) Complete the following fields to configure File System notification for the servers *CrystalReportJobServer*, *ProgramJobServer*, and *DestinationJobServer* and click Next:

File Destination Directory

Sends the output to a specific location on the local CA Business Intelligence file system.

User Specific File Name

Creates a report file with file name that you specify in .XML format.

The CABI_GRLoader page appears.

5. (Optional) Enter the following details when you want installer to configure the GRLoader program object parameters:

GRLoader arguments

Specifies the GRLoader arguments (program object parameters).

Working Directory

Specifies the working directory where GRLoader copies the GRLoader binaries.

6. Click Install after reviewing the summary.

The installer confirms that the integration installation completed successfully.

7. Click Done.

The installer closes.

Schedule the BOXI_GRLoader Program Object

You set the appropriate parameters before scheduling the BOXI_GRLoader program object in CA Business Intelligence. Setting these parameters helps ensure that the program object schedules successfully. Update the BOXI_GRLoader program object during the patch installation or configure it manually.

To schedule the BOXI_GRLoader Program object

1. Log in to the CMC or InfoView and browse to the following directory:

   InfoView

   \Public Folders\CA Reports\CCA to CMDB

   CMC

   \Folders\All Folders\CA Reports\CCA to CMDB

2. Right-click BOXI_GRLoader program object and select Schedule.

   The Schedule page appears.

3. Perform the following steps:

   a. Enter a Title for the Instance.

   b. Select Recurrence from the left pane and set the option that you want, such as Now, Hourly, or Daily.

   c. Select the Program Parameters option (Arguments) which lists the default value that is specified during the installation and import of the BIAR file (may contain the default command line of *-cfg C:\conf.txt*).

      Note: For more information about arguments that you can pass to GRLoader, see the *CA CMDB r12.7 Technical Reference Guide*.

   d. If you set the CA CMDB command options (Arguments) through *conf.txt*, verify that the Working Directory, Class to run, and Classpath Program parameters are relevant, such as the following example *conf.txt* file:

      ```
      grloader.userid=ServiceDesk
      grloader.password=Service@123Desk
      grloader.server=http://CASDMhostname:8088
      grloader.inputfile=c:/GrLoader/XML/cmdbexport.xml
      grloader.errorfile=c:/GrLoader/XML/cmdbexport.xml_err.xml
      grloader.nxroot=C:/GRLoader
      grloader.allowupdate=yes
      grloader.allowinsert=yes
      grloader.overwriteerrorxml=yes
      ```

      Note: From the previous sample, locate *grloader.inputfile* to the same directory that the CA CMDB Export report exports to XML. The name of the report XML should be same as the scheduled CA CMDB Export report XML.

e. Select Events from the left pane of Schedule BOXI_GRLoader and verify that the *Successful_Report_XML_Event* is selected by default as the *Event to wait for*.

f. Select Program Parameters from the left pane and verify that the Default Setting values set for Arguments, Working Directory, Class to run, and Classpath Program parameters are relevant.

4. Click Schedule.

   The program object is scheduled.

Schedule the CA CMDB Report

You schedule the CA CMDB Export Report after you create the event, configure, and schedule the BOXI_GRLoader program object to wait for the XML Schedule event. You can optionally set a user to receive a notification (see page 59) of the GRLoader output as an email attachment.

Note: When you schedule both BOXI_GRLoader and the CA CMDB Export Report, schedule the BOXI_GRLoader program object before the CA CMDB Export Report so that it is in a waiting state for the event to trigger.

To schedule the report

1. Log in to the CMC or InfoView and browse to the following directory:

   InfoView

   \Public Folders\CA Reports\CCA to CMDB

   CMC

   \Folders\All Folders\CA Reports\CCA to CMDB

2. Right-click CA CMDB Export report and select Schedule.

   The Schedule page appears.

3. Perform the following steps:

   a. Enter a Title for the Instance.

   b. Select Recurrence from the left pane and set the option that you want, such as Now, Hourly, or Daily.

   c. Select Parameters from the left pane and set the values as required and click Set Parameters.

   d. Select Events from the left pane and verify that the *Successful_Report_XML_Event* is selected by default as the *Event to trigger on completion*.

   e. Select Format from the left pane, set the destination format as Plain Text, and verify that *Use the export options defined in the report* option is selected.

      f.   Select Destination from the left pane and set where you want to place the generated XML file by performing the following actions:

- Select File System from the Destination drop-down list.

- Enter ***.xml** as the file name you want to generate specifically, which is the same file as the one configured in conf.txt while scheduling the BOXI_GRLoader.

- Enter the directory that you used when configuring conf.txt.

    For example, if conf.txt contains the line *grloader.inputfile=c:/GrLoader/XML/*, the XML file cmdbexport.xml is located in the c:/GRLoader/XML/ directory.

4. Click Schedule.

    BOXI_GRLoader waits for the event to happen and the report triggers the event after it schedules the report successfully. This action starts the schedule of the BOXI_GRLoader.jar program object and loads data into the CA CMDB database.

GRLoader Email Attachment Example

You can <u>optionally configure a user to receive a notification</u> of the GRLoader output as an email attachment after the CA CMDB export report completes,.

The following example the GRLoader output:

```
18:26:24.937 CI and Relationship Loader for CA Service Desk Manager R12.7.000
 / - - \ \ | / / - - \ |The element type "Name" must be terminated by the matching
end-tag "</Name>".
Error occurred at line(152) column( 6) Error(The element type "Name" must be terminated
by the matching end-tag "</Name>".)

Results:
                 Read    Skipped   Inserts   Updates    Errors  Warnings
CI                8       0         5         2                  1
Relation          0       0         0         0         0        0

GRLoader completed with errors.
See GRLoader.log for details.
18:26:28.000 GRLoader ended
```

How to Configure Separate Instances of BOXI_GRLoader and the CA CMDB Export Report

You can create any number of instances with different Filter options that schedule the CA CMDB Export Report at different time intervals. To create an instance, repeat the previously mentioned steps for scheduling BOXI_GRLoader and the CA CMDB Export report.

To help ensure that you have proper synchronization between BOXI_GRLoader and the instance XML file generated by the report, consider the following precautionary steps:

1. Verify that you provided a separate instance name for each instance of BOXI_GRLoader and the CA CMDB Export report that you want to generate.

2. Verify that you used <u>separate Events</u> (see page 25) for each instance of the CA CMDB Export.

3. Use the same Event name between the *Event to wait for* in BOXI_GRLoader (Step 3e) and the *Event to trigger on completion* in the CA CMDB Export report (Step 3d).

   Important! Do *not* use the default Event name when creating multiple instances.

4. A different configuration file (see step 3d) passes an argument to BOXI_GRLoader, which refers to a different grloader.inputfile than in other running instances.

5. Verify that the file name and location destination values of the CA CMDB Export report match with the parameters used in BOXI_GRLoader.

Create a Schedule Event

You create a schedule event after scheduling the GRLoader. This event lets GRLoader take the XML file that is generated on a successful completion of the scheduled report and exports the data to CA CMDB.

To create a schedule event

1. From the CMC, click Events in the Define column.

   The Events list appears.

2. Click Manage, New Event.

   The New Event page appears.

3. Perform the following actions:

   a. Select Schedule from the Type drop-down list.

   b. Enter **XML Schedule** as the Event Name.

   c. Select the Success check box.

4. Save and close the event.

Chapter 3: Customization

This section contains the following topics:

Attribute Transform Handling

The Attribute Transformations are handled at the report level. If you want to customize the attribute transforms of the components, edit the report using Crystal Designer.

The CA CMDB Export Report handles attribute transforms for the following components:

CA CMDB Export Variable	CA Configuration Automation CI	Component Name	CA CMDB Attribute	Format
attributeTransform	component	J2EE Enterprise Application	system name	j2ee|$(host)|$(Application Name)|$(root)
attributeTransform	component	Java Web Application	system name	j2ee|$(host)|$(Application Name)|$(root)
attributeTransform	component	BEA WebLogic Domains (Windows)	system name	port|$(host)|$(ListenPort)
attributeTransform	component	BEA WebLogic Domains (UNIX)	system name	port|$(host)|$(ListenPort)
attributeTransform	component	BEA WebLogic Domain (Windows)	system name	port|$(host)|$(ListenPort)
attributeTransform	component	BEA WebLogic Domain (UNIX)	system name	port|$(host)|$(ListenPort)
attributeTransform	component	IBM WebSphere 6 Server Instance (UNIX)	system name	port|$(host)|$(ListenPort)
attributeTransform	component	IBM WebSphere 6 Server Instance (Windows)	system name	port|$(host)|$(ListenPort)

CA CMDB Export Variable	CA Configuration Automation CI	Component Name	CA CMDB Attribute	Format
attributeTransform	component	IBM WebSphere 5 Server Instance (UNIX)	system name	port|$(host)\|$(ListenPort)
attributeTransform	component	IBM WebSphere 5 Server Instance (Windows)	system name	port|$(host)\|$(ListenPort)

BOXI_GRLoader Arguments for Japanese Platform

The syntax of the BOXI_GRLoader Program Parameters for the Japanese platform is as follows:

```
-s http://<ServiceDeskhostname>:<ServiceDeskPortNumber> -u <servicedeskuser> -p
<servicedeskpassword> -i <Absolute Path of CMDBExport.xml> -tf <Location of japanese
translation file> -n -a -N <GRloader Classpath> -ad model=default -ad
manufacturer=default
```

Example

-s http://TestSDM:8080 -u servicedesk -p Password -i C:\GRLoader\xml\cmdbexport.xml -tf C:\GRLoader\GRLoader\xlate_en_to_ja.rul -n -a -N C:\GRLoader -ad model=sample -ad manufacturer=sample

Note: CA SDM requires the model and manufacturer tag in the BOXI_GRLoader, Program Parameters, Arguments list. If you specify only one tag in a CI, the export fails with one of the following errors in the CMDB Export XML file:

- <!--ERROR: model is required when manufacturer is specified-->
- <!--ERROR: manufacturer is required when model is specified-->

Customize the Attribute Transform

Crystal Reports Designer lets you customize the attribute Transform for system_name of Component CI by modifying formulas in the *CompCI* and *parentcomp.rpt* subreports.

<ftps>

1. Log on to Crystal Report to the Enterprise where you deployed the CA CMDB Export report.

2. From the CA Reports\CCA TO CMDB\ folder, right-click CA CMDB Export and select Open Report.

    The report appears.

3. Right-click the *CompCI* subreport and select Edit Subreport.

4. From the Field Explorer, open the *fA_sysname* formula.

5. Edit the formula to the desired format.

   The following displays the formula definition of fA_sysname:

```
local stringVar sysName;
local stringVar bpName;
local stringVar srvrName;
local stringVar compVer;
local stringVar compQual;
local stringVar appName;
local stringVar instDir;
local stringVar portNo;
local numberVar type; // typ will be 1, 2 or 3 depending upon bp name

local stringVar temp;
local stringVar tempQual;
local numberVar diff;

if (isnull(maximum({query_compci.Bp Name}, {query_compci.Comp Uuid})))
then bpName := "" else bpName := maximum({query_compci.Bp Name},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Srvr Name}, {query_compci.Comp Uuid})))
then srvrName := "" else srvrName := maximum({query_compci.Srvr Name},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Comp Qual}, {query_compci.Comp Uuid})))
then compQual := "" else compQual := maximum({query_compci.Comp Qual},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Comp Ver}, {query_compci.Comp Uuid})))
then compVer := "" else compVer := maximum({query_compci.Comp Ver},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Application Name}, {query_compci.Comp Uuid})))
then appName := "" else appName := maximum({query_compci.Application Name},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Install Dir}, {query_compci.Comp Uuid})))
then instDir := "" else instDir := maximum({query_compci.Install Dir},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Listen Port}, {query_compci.Comp Uuid})))
then portNo := "" else portNo := maximum({query_compci.Listen Port},
{query_compci.Comp Uuid});
```

```
if (bpName in ["J2EE Enterprise Application", "Java Web Application"]) then
    type := 1
else if (bpName in ["BEA WebLogic Domains (Windows)", "BEA WebLogic Domains
(UNIX)", "BEA WebLogic Domain (Windows)", "BEA WebLogic Domain (UNIX)"]) then
    type := 2
else if (bpName in ["IBM WebSphere 6 Server Instance (UNIX)", "IBM WebSphere 6
Server Instance (Windows)", "IBM WebSphere 5 Server Instance (UNIX)", "IBM
WebSphere 5 Server Instance (Windows)"]) then
    type := 2
else
    type := 3;
if(type=3) then
(
    if(not(isnumeric(left(srvrName,(instr(srvrName,'.'))-1)))) then
    srvrName := left(srvrName,(instr(srvrName,'.'))-1)
    else
    srvrName := srvrName;
)
else
srvrName := srvrName;

if (type = 1) then
(
    sysName := "j2ee|" & srvrName & "|" & appName & "|" & instDir ;
    if (len(sysName) > 255) then
        sysName := left(sysName, 255);
)
else if (type = 2) then
(
    sysName := "port|" & srvrName & "|" & portNo;
    if (len(sysName) > 255) then
        sysName := left(sysName, 255);
)
else (
    temp := srvrName & "|" & bpName & "|" & compVer & "|" ;

    if (len(temp) + len(compQual) <= 255) then
        (sysName := temp & compQual)
    else
        (
            diff:= (length(temp) + length(compQual))+ 3 -252;
            if ( length(compQual) > diff ) then
                compQual:= mid(compQual,1,(length(compQual) -
diff)\2+1)+"..."+ mid(compQual,(length(compQual) + diff)\2)
            else
                compQual := "";
            sysName := temp & compQual;
        )
);
```

sysName;

6. Close the CompCI subreport after modifying the fA_sysname formula.

7. Open the parentcomp.rpt subreport and modify the system_name attributes for the *fA_sysname* and *fA_sysname 2* formulas accordingly.

The following displays the formula definition of fA_sysname:

```
local stringVar sysName;
local stringVar bpName;
local stringVar srvrName;
local stringVar compVer;
local stringVar compQual;
local stringVar appName;
local stringVar instDir;
local stringVar portNo;
local numberVar type; // typ will be 1, 2 or 3 depending upon bp name

local stringVar temp;
local stringVar tempQual;
local numberVar diff;

if (isnull(maximum({query_compci.Bp Name}, {query_compci.Comp Uuid})))
then bpName := "" else bpName := maximum({query_compci.Bp Name},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Srvr Name}, {query_compci.Comp Uuid})))
then srvrName := "" else srvrName := maximum({query_compci.Srvr Name},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Comp Qual}, {query_compci.Comp Uuid})))
then compQual := "" else compQual := maximum({query_compci.Comp Qual},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Comp Ver}, {query_compci.Comp Uuid})))
then compVer := "" else compVer := maximum({query_compci.Comp Ver},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Application Name}, {query_compci.Comp Uuid})))
then appName := "" else appName := maximum({query_compci.Application Name},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Install Dir}, {query_compci.Comp Uuid})))
then instDir := "" else instDir := maximum({query_compci.Install Dir},
{query_compci.Comp Uuid});
if (isnull(maximum({query_compci.Listen Port}, {query_compci.Comp Uuid})))
then portNo := "" else portNo := maximum({query_compci.Listen Port},
{query_compci.Comp Uuid});
```

```
if (bpName in ["J2EE Enterprise Application", "Java Web Application"]) then
    type := 1
else if (bpName in ["BEA WebLogic Domains (Windows)", "BEA WebLogic Domains
(UNIX)", "BEA WebLogic Domain (Windows)", "BEA WebLogic Domain (UNIX)"]) then
    type := 2
else if (bpName in ["IBM WebSphere 6 Server Instance (UNIX)", "IBM WebSphere 6
Server Instance (Windows)", "IBM WebSphere 5 Server Instance (UNIX)", "IBM
WebSphere 5 Server Instance (Windows)"]) then
    type := 2
else
    type := 3;
if(type=3) then
(
    if(not(isnumeric(left(srvrName,(instr(srvrName,'.'))-1)))) then
    srvrName := left(srvrName,(instr(srvrName,'.'))-1)
    else
    srvrName := srvrName;
)
else
srvrName := srvrName;

if (type = 1) then
(
    sysName := "j2ee|" & srvrName & "|" & appName & "|" & instDir ;
    if (len(sysName) > 255) then
        sysName := left(sysName, 255);
)
else if (type = 2) then
(
    sysName := "port|" & srvrName & "|" & portNo;
    if (len(sysName) > 255) then
        sysName := left(sysName, 255);
)
else (
    temp := srvrName & "|" & bpName & "|" & compVer & "|" ;

    if (len(temp) + len(compQual) <= 255) then
        (sysName := temp & compQual)
    else
        (
            diff:= (length(temp) + length(compQual))+ 3 -252;
            if ( length(compQual) > diff ) then
                compQual:= mid(compQual,1,(length(compQual) -
diff)\2+1)+"..."+ mid(compQual,(length(compQual) + diff)\2)
            else
                compQual := "";
            sysName := temp & compQual;
        )
);
```

```
sysName;
```

The following displays the formula definition of fA_sysname 2:

```
local stringVar sysName;
local stringVar bpName;
local stringVar srvrName;
local stringVar compVer;
local stringVar compQual;
local stringVar appName;
local stringVar instDir;
local stringVar portNo;
local numberVar type; // typ will be 1, 2 or 3 depending upon bp name

local stringVar temp;
local stringVar tempQual;
local numberVar diff;

if (isnull(maximum({query_parentCompDetails.Bp Name}, {query_compci.Comp
Uuid})))
then bpName := "" else bpName := maximum({query_parentCompDetails.Bp Name},
{query_compci.Comp Uuid});
if (isnull(maximum({query_parentCompDetails.Srvr Name}, {query_compci.Comp
Uuid})))
then srvrName := "" else srvrName := maximum({query_parentCompDetails.Srvr Name},
{query_compci.Comp Uuid});
if (isnull(maximum({query_parentCompDetails.Comp Qual}, {query_compci.Comp
Uuid})))
then compQual := "" else compQual := maximum({query_parentCompDetails.Comp Qual},
{query_compci.Comp Uuid});
if (isnull(maximum({query_parentCompDetails.Comp Ver}, {query_compci.Comp
Uuid})))
then compVer := "" else compVer := maximum({query_parentCompDetails.Comp Ver},
{query_compci.Comp Uuid});
if (isnull(maximum({query_parentCompDetails.Application Name},
{query_compci.Comp Uuid})))
then appName := "" else appName := maximum({query_parentCompDetails.Application
Name}, {query_compci.Comp Uuid});
if (isnull(maximum({query_parentCompDetails.Install Dir}, {query_compci.Comp
Uuid})))
then instDir := "" else instDir := maximum({query_parentCompDetails.Install Dir},
{query_compci.Comp Uuid});
if (isnull(maximum({query_parentCompDetails.Listen Port}, {query_compci.Comp
Uuid})))
then portNo := "" else portNo := maximum({query_parentCompDetails.Listen Port},
{query_compci.Comp Uuid});

if (bpName in ["J2EE Enterprise Application", "Java Web Application"]) then
    type := 1
else if (bpName in ["BEA WebLogic Domains (Windows)", "BEA WebLogic Domains
(UNIX)", "BEA WebLogic Domain (Windows)", "BEA WebLogic Domain (UNIX)"]) then
    type := 2
```

```
else if (bpName in ["IBM WebSphere 6 Server Instance (UNIX)", "IBM WebSphere 6
Server Instance (Windows)", "IBM WebSphere 5 Server Instance (UNIX)", "IBM
WebSphere 5 Server Instance (Windows)"]) then
    type := 2
else
    type := 3;
if(type=3) then
(
    if(not(isnumeric(left(srvrName,(instr(srvrName,'.'))-1)))) then
    srvrName := left(srvrName,(instr(srvrName,'.'))-1)
    else
    srvrName := srvrName;
)
else
srvrName := srvrName;
if (type = 1) then
(
    sysName := "j2ee|" & srvrName & "|" & appName & "|" & instDir ;
    if (len(sysName) > 256) then
        sysName := left(sysName, 256);
)
else if (type = 2) then
(
    sysName := "port|" & srvrName & "|" & portNo;
    if (len(sysName) > 256) then
        sysName := left(sysName, 256);
)
else (
    temp := srvrName & "|" & bpName & "|" & compVer & "|" ;

    if (len(temp) + len(compQual) <= 256) then
        (sysName := temp & compQual)
    else
        (
            diff:= (length(temp) + length(compQual))+ 3 -252;
            if ( length(compQual) > diff ) then
                compQual:= mid(compQual,1,(length(compQual) -
diff)\2+1)+"..."+ mid(compQual,(length(compQual) + diff)\2)
            else
                compQual := "";
            sysName := temp & compQual;
        )
);
sysName;
```

8. Close the parentcomp.rpt subreport.

   The Transform attributes are customized.

Database CI for Integrating CA Configuration Automation and CMDB

When you integrate CA Configuration Automation and CMDB, a new CI named *Database Name* is created in the cmdbexport.xml file, and in CA SDM. The Database Name CI exports the database name values obtained for the Component Parameters and Variables, and the File Structure class parameters.

When you create a custom blueprint set the Component Parameter, or File Structure class Parameter to *Interpret As Database Name* in the Value Details attribute panel. Set the Interpret As Database Name to a specific parameter depending on your requirements. We recommend you to set the Database Name for the blueprint parameters that belongs to the Relational Databases category.

For example, follow these steps to set a Database Name for Oracle Database 11g (Windows) component blueprint:

1. Create a copy of the Oracle Database 11g (Windows) component blueprint.

2. Select a Component or File Structure class parameter (OracleSID in this example) and set it to Interpret As = Database Name.

3. Add the following query in the acmbo_classmapping table:

   INSERT INTO acmbo_classmapping VALUES('component','Copy of Oracle Database 11g (Windows)','Software.Database','Oracle')

4. Discover the copy of Oracle Database 11g (Windows) component blueprint for any Windows computer where Oracle 11g is installed.

   After the discovery is complete, the relationships are displayed in the Configuration Relationships view of the respective server.

5. Run the CMDB Export Report to verify the database name in the cmdbexport.xml file. A code sample follows:

```
<ci>
<name>orcl</name>
<dns_name />
<serial_number />
<system_name>orcl</system_name>
<family>Software.Database</family>
<class>Oracle</class>
<mdr_name>lodivmlcvs2026.ca.com</mdr_name>
<mdr_class>CCA r12.8</mdr_class>
<federated_asset_id>&amp;objtype=database&amp;name=orcl</federated_asset_id>
</ci>
<relation>
<type>communicates with</type>
<provider>
```

```
<name>Copy of Oracle Database 11g (Windows) 11.2.0.1.0
(C:\app\Administrator\product\11.2.0\dbhome_1)</name>
<system_name>
bgunn03-i44401.ca.com|Copy of Oracle Database 11g
(Windows)|11.2.0.1.0|C:\oracle\product\11.2.0\dbhome_1)
</system_name>
</provider>
<dependent>
<name>orcl</name>
<dns_name></dns_name>
<serial_number></serial_number>
<system_name>orcl</system_name>
</dependent>
</relation>
```
The name and system_name (shown in bold in this example) are the discovered values.
The family and class are derived based on the provider component.
After the export, the CA Service Desk UI displays the relationship, and the CMDB
Visualizer displays the component relationships.

Customization of Attribute Mappings and Relationships

Using the *CA CMDB Export Report* to integrate CA Configuration Automation and CA
CMDB maps CI data between the products.

Important! Back up your tables before you update them with the report scripts. To back
up your tables, drop the tables that you must restore back to their original form and
execute the SQL script that corresponds to the required table from the given patch. This
action populates the table again. To execute the scripts, the CA Configuration
Automation r12.8 database user *must* have access to add and update database objects
to SQL Server or Oracle.

The following tables correspond to how CIs map in this integration:

- acmbo_attrmapping (see page 39)

- acmbo_classmapping (see page 40)

- acmbo_relshpmapping (see page 40)

Use the sqlcmd command to back up a table, such as the following examples:

```
sqlcmd -s servername -d mdb -q "SELECT * INTO acmbo_attrmappingorig FROM
acmbo_attrmapping
sqlcmd -s servername -d mdb -q "SELECT * INTO acmbo_classmappingorig FROM
acmbo_classmapping
sqlcmd -s servername -d mdb -q "SELECT * INTO acmbo_relshmappingorig FROM
acmbo_relshmapping
```

You restore the original backups by running the following commands:

```
sqlcmd -s servername -d mdb -q "SELECT * INTO acmbo_attrmapping FROM
acmbo_attrmappingorig
sqlcmd -s servername -d mdb -q "SELECT * INTO acmbo_classmapping FROM
acmbo_classmappinggorig
sqlcmd -s servername -d mdb -q "SELECT * INTO acmbo_relshmapping FROM
acmbo_relshmappingorig
```

acmbo_attrmapping Table

The *acmbo_attrmapping* table specifies the different CIs and the corresponding mapping information of attributes in CA Configuration Automation and CA CMDB with the following example query results:

```
select * from acmbo_attrmapping;
```

CI	CA Configuration Automation Attribute	CA CMDB Attribute
server	ip_address	alarm_id
server	domainname	dns_name
server	host_id	federated_asset_id
server	mac_address	mac_address
server	make	manufacturer
server	model	model
server	serialno	serial_number
server	system_name	system_name

For example, the *ip_address* attribute of a Server CI in CA Configuration Automation refers to the *alarm_id* attribute in CA CMDB.

If you want to customize the *ip_address* attribute in CA Configuration Automation to IPAddress in CA CMDB, you update the *acmbo_attrmapping* table, such as in the following example:

```
update acmbo_attrmapping set cmdbattribute='IPAddress' where ci='server' and
acmattribute='ip_address'
```

acmbo_classmapping Table

The *acmbo_classmapping table* specifies the different CIs and the corresponding class, family information of different CIs in CA Configuration Automation and CA CMDB with the following example query results:

```
select * from acmbo_classmapping;
```

CI	Component Name	CA CMDB Family	CA CMDB Class
component	AIX	Software.Operating System	AIX OS
component	BSD Unix	Software.Operating System	Unix OS
component	HP-UX	Software.Operating System	HP UX OS
component	Red Hat Linux	Software.Operating System	Linux OS
component	Solaris	Software.Operating System	Sun OS

For example, if you want to customize the class or family attribute in CA CMDB, then you update the *acmbo_classmapping table*, such as in the following example:

```
update acmbo_classmapping set cmdbclass='AIX' where ci='component' and
cmdbclass='AIX OS' and componentname='AIX' and cmdbfamily='Software.Operating
System'
```

acmbo_relshpmapping Table

The acmbo_relshpmapping table specifies the different CIs and the corresponding relationship information CA Configuration Automation and CA CMDB with the following example query results:

```
select * from acmbo_relshpmapping;
```

Source CI	Target CI	Relationship
server	server	communicates with
server	Hard Drive	contains
server	virtual	is the parent of
server	component	hosts

Source CI	Target CI	Relationship
server	service	runs
server	lpar	is the parent of
server	nic	contains
server	File System	contains

For example, if you want to customize the relationship attribute in CA CMDB, then you update the *acmbo_relshpmapping* table, such as in the following example:

```
update acmbo_relshpmapping set relationship='hosts' where ci='server' and
targetci='component' and relationship='communicates with'
```

Customize the Report XML to Include or Exclude delete_flag

If you do *not* want to update superseded CIs with data every time an update runs from CA Configuration Automation, avoid populating the <delete_flag> in the input XML.

To exclude or include <delete_flag>, execute the appropriate script in the CA Configuration Automation database:

- To exclude delete_flag from the report XML:

  ```
  update acmbo_attrmapping set ci = 'component_inactivate' where acmattribute =
  'delete_flag'
  ```

- To include delete_flag from the report XML:

  ```
  update acmbo_attrmapping set ci = 'component' where acmattribute = 'delete_flag'
  ```

Chapter 4: Known Issues

This section contains the following topics:

CA Business Intelligence Does Not Connect to a SQL Server Named Instance that Uses a Nondefault Port

Symptom:

If the CA Configuration Automation Server uses a default-configured SQL Server named instance, CA Business Intelligence does not connect if you are using a nondefault port (other than 1433) for the database instance.

Solution:

Create and configure a new DSN connection under SYSTEM DSN on the CA Business Intelligence system to connect with SQL Server named instances.

Note: The name of the SYSTEM DSN is the same as the database name. This name was used in the CA Business Intelligence connection parameters, such as *cca*.

CMDB Report Export to CA SDM Fails

CA SDM requires that the model tag and the manufacturer tag are both used in a configuration item. If only tag is used in a CI, the export fails with one of the following errors in the CMDB Export XML file:

<!--ERROR: model is required when manufacturer is specified-->
<!--ERROR: manufacturer is required when model is specified-->

To avoid these errors, add the manufacturer and model parameters in the BOXI_GRLoader, Program Parameters, Arguments list.

Argument List Syntax

```
-s http://<ServiceDeskhostname>:<ServiceDeskPortNumber> -u <servicedeskuser> -p
<servicedeskpassword> -i <Absolute Path of CMDBExport.xml> -n -a -N <GRloader
Classpath> -E -ad model=default -ad manufacturer=default
```

Unable to Run the SQL Execute

Symptom:

While running DeskI reports based on a particular universe, I receive the following error message:

Error during SQL execution: (DA0003)

The error has the following details:

Exception: CS, Unable to run the sql execute

Note: The report runs without errors in Infoview.

When I search for the table values of any of the tables present in the same universe, the following error message appears:

Exception: CS, Unable to run the sql execute

Solution:

The connection for the universe is corrupt. To correct this problem, create a connection and use it for the universe as follows:

1. Log on to the BusinessObjects Universe Designer.

2. Select File, Import from the menu.

   The Import Universe dialog appears.

3. Browse and select the universe you want. Click OK.

   The universe is imported.

4. Select File, Parameters.

   The Universe Parameters dialog appears.

5. On the Definition tab, click New.

   The New Connection Wizard appears.

6. Click Next.

   The Define a new connection dialog appears.

7. Enter a new connection name and select the database middleware based on whether you want to use an SQL Server or Oracle database for the report. Click Next.

   The Define a new connection dialog appears.

8. Enter the username, password, database name, and database server name. Test the connection to determine whether the Universe is responding. Click Next, and click OK.

   The Universe Designer window appears.

9. Save the universe, and then select File, Export from the Universe Designer menu.

   The connection for the universe is created.

Failed to Open Connection

Symptom:

When I run a report in InfoView, one or more of the following messages appear:

Failed to open Connection

Incorrect logon parameters

Incomplete database logon information

Solution:

The report database log-on information is incomplete or the CAFPage is not configured properly. To resolve these problems, perform the following steps:

1. Identify the database that the universe uses.

2. Test the universe connection to verify that the universe is responding correctly.

3. (Oracle database only) Verify that the CA Business Intelligence system has the Oracle client installed properly and that the TNS entry matches the one provided in the universe.

   The following TNS entry is an example:

   ```
   orcl =
     (DESCRIPTION =
       (ADDRESS_LIST =
         (ADDRESS = (PROTOCOL = TCP)(HOST = abcd-tm-114)(PORT = 1521))
       )
       (CONNECT_DATA =
         (SERVICE_NAME = orcl)
   ```

4. (SQL Server database only) Verify that the oledb.sbo file is configured properly. Use the OLE DB network layer to import the BIAR file into the Business Objects enterprise.

5. Verify that the setReportType.jsp is edited correctly with the BusinessObject credentials. Verify that the database.properties file is using the CA Configuration Automation r12.8 database that you want to use for reporting. After you modify the database.properties file, restart the Tomcat server or the web application server of the BusinessObjects system.

6. If the CAFPage is not working, browse to the log file in the logs folder of the web application server of BusinessObjects, for example:

   ```
   C:\Program Files\Business Objects\Tomcat55\logs\CAFApp.log
   ```

7. Review the log. If the log shows the following error message, the Oracle JDBC *.jar file is not found in the classpath of the system:

   ```
   If the error is ClassNotFoundException: OracleJDBCDriver not found
   ```

   Set the path of the Oracle JDBC driver in the CLASSPATH variable of the system.

Not Enough Memory for Operation

Symptom:

When the database does not have sufficient memory for operation, the following system problems can occur:

- The schedule hangs in the Pending state.

- The view on demand hangs while loading.

Solution:

Correct one or more of the following problems:

- The system that is running the report is of low configuration.

- The network of the system does not have a good response.

- (Oracle) The TNS name is not recognized. Verify that the TNSlistener is running on the database server and that it is responding.

- The temp folder or the cache is full with the servers that are responsible for the scheduling process.

- The WebiProcessing server is shut down.

- CA Business Intelligence is not installed correctly.

Use the following recommended settings or the minimum requirements to avoid memory issues:

- When the database is large, select only a few servers for your report criteria.

- Verify the space on the local drives on the computer. Increase the space on these drives.

- Increase the RAM size on the computer. A minimum of 2 GB of RAM is required.

- Increase the memory of Java Tomcat as follows:

  1. Select Start, Programs, Tomcat, Configuration, Java tab.

  2. Set the Initial size to **512**, and set the Maximum size to **1024**.

  3. Restart Tomcat and verify that the correct number of pages are in the report after you refresh the report.

- On the server, review and adjust the page/file size as follows:

  1. Select My Computer Properties, Advanced tab, Performance Settings.

     The Performance Options dialog appears.

  2. Select the Advanced tab and click the Virtual Memory Change button.

  3. Adjust the Paging file size (initial and maximum) for your C and D drives.

- Delete files from the windows temp directory as follows:

    1. Select Start, run.

    2. Enter **%temp%** and click OK.

    Note: If you are exporting or saving a large report on the local computer, review the size of the temp directory.

- Change the maximum cache size as follows:

    1. Open the properties for the Crystal Report Cache Server and stop the server.

    1. Add the -deleteCache option to the end of the command line.

    2. Change the maximum cache size from 256000 to 768000.

    3. Start the server.

- Delete or move the contents from the following cache folder:

    `<Install Dir>\Program Files\Business Objects\BusinessObjects Enterprise 12.0\Data\`

Note: For more troubleshooting tips for various types of memory errors, see the www.sdn.sap.com website.

Email Notification is Not Sent

Symptom:

An email notification is not sent to the user and the following error message appears:

Address Error.[CrystalEnterprise.Smtp]: [] occurred

Solution:

Configure the email and file system servers (see page 59) in CA Business Intelligence.

Note: When you schedule the CA CMDB Export Report from InfoView or the CMC, we recommend that you schedule it to plain text as XML because this report contains many subreports if you view it on demand within CA Business Intelligence.

CAFApp.war Deployment Fails

Symptom:

The CAFApp.war deployment fails with an authentication error.

Solution:

This problem is due to not setting the proper business objects credentials in the setReportType.jsp file. Deploy the Client Access Framework (CAF) page WAR files.

Error on CA Configuration Automation Upgrade with Oracle Database

Symptom:

The following error appears during an CA Configuration Automation upgrade on an Oracle database:

Error: A tablespace with name "acmdata" not found, use an existing tablespace name

Solution:

If the CA Configuration Automation Server is using an Oracle database for its backend, and the Data Tablespace name and Index Tablespace name used are different from "acmdata" or "acmindex", the current upgrade installer does not identify the data and index correctly.

Execute the installer from the command line with the correct data and index names as follows:

```
installserver.exe -DDATATSNAME=acmcmdbdata -DINDEXTSNAME=acmcmdbindex
```

Export of Relationship with Unmanaged Server Causes Error in GRLoader

Symptom:

The following error appears when exporting a relationship with the *Include servers not listed in Server Table* option enabled on the CA Business Intelligence interface:

Provider CI not found

Solution:

Disable the option "*Include servers not listed in Server Table*" to filter out the export of relationships associated with servers that are not in the CA Configuration Automation Server table. Also, you can discover the server by adding it to the CA Configuration Automation Server table.

Extracting Virtual Machine and Provider Relationships Causes Error in XML Files

Symptom:

The Provider CI not found error appears in the XML error file (<SpecifiedFileName_err.XML) and GRLoader.log file when the integration attempts to extract a relationship between a virtual machine and its provider (such as VMware ESX Host).

Solution:

- Verify that CA Configuration Automation discovered the VMware ESX Host.
- Verify that you added the VMware ESX Host, the VMware vCenter Server credentials, or both, to the credential vault within CA Configuration Automation. After you add the credentials, run Network Discovery again using a Network Scan that includes the Softagent (for example, Pingsweep Scan with Softagent).

Appendix A: Appendix

This section contains the following topics:

Create an ODBC System DSN

Create an ODBC System DSN to the CA Configuration Automation database before importing the BIAR file to connect to the database. The ODBC System DSN provides connectivity to the CA Configuration Automation database.

Note: If you are using a SQL Server database, we recommend an OLE DB connection.

Important! If you are using an Oracle database, you do not need to create an ODBC System DSN. Install the Oracle client (TNS entry) on the computer where you installed CA Business Intelligence, and create an entry for the database server in the *tnsnames.ora* file.

Note: For information about how to install an ODBC driver in UNIX, see the white paper on the SAP Developer Network website named "How to Install and Configure DataDirect 5.2 on UNIX." This white paper describes how to configure the database credentials in the *odbc.ini* file.

To create an ODBC System DSN on Windows

1. Navigate to Administrative Tools, Data Sources (ODBC) from the Start menu.

   The ODBC Data Source Administrator dialog appears.

2. On the System DSN tab, click Add.

   The Create New Data Source dialog appears.

3. Select SQL Server from the list and click Finish.

   The Create a New Data Source to SQL Server dialog appears.

4. Enter **CCA_CMDB** as the DSN name and your database in the Server field and click Next.

   The Create a New Data Source to SQL Server dialog continues.

5. Select the With SQL Server authentication using a login ID and password entered by the user option and enter the username and password of the database server and click Next.

   The reports point to the server.

6. Select the database name (such as ccartm) and click Next.

7. Click Finish.

   The ODBC Microsoft SQL Server Setup dialog appears.

8. Click Test Data Source.

   A message appears indicating that the connection test finished successfully.

   To confirm that the ODBC creation completed successfully, go to the ODBC Data Source Administrator dialog and locate the CCA_CMDB DSN name on the System DSN tab.

Import the BIAR File with the BICONFIG Utility

Use the BICONFIG utility to import the *CCA to CMDB Export Group*, the CA CMDB Export report, BOXI_GRLoader.jar (a wrapper jar to GRLoader.jar), and the CA Business Intelligence Universe into CA Business Intelligence. The utility provides a solution for various CA Business Intelligence object functions, such as the command line import of the BIAR (xml_biar_import.biar) file to BusinessObjects Enterprise. The utility also modifies the database connection information for the BIAR file dynamically.

Note: To use the BICONFIG utility, set the JAVA_HOME variable in the system environment or the utility displays an error message.

Important! If you use an OLE DB while importing the BIAR file, modify the *oledb.sbo* file (see page 54) to prevent a connection error.

To import the BIAR file with the BICONFIG Utility

1. Copy the contents of the BIConfig folder to the computer where you are deploying the solution.

2. Set the required parameter values in the xml_biar_import.xml file located in the samples folder.

3. Modify the parameters, such as the following example Network Layer and RDMS combinations:

- If you are using SQL Server:
  ```
  <networklayer>OLE DB</networklayer>
  <rdms>MS SQL Server 2005</rdms>
  ```

- If you are using Oracle:
  ```
  <networklayer>Oracle OCI</networklayer>
  <rdms>Oracle 10</rdms>
  ```

Note: For more information about setting these parameters, see the sample BIAR files for SQL Server and Oracle.

4. Set the BIAR file location, the username and password of the database, the datasource name, and database server name.

5. Run the following utility from the command line:
   ```
   biconfig -h "host" [-n "port"] -u "<user>" [-p "password"] [-s "security"] -f
   "XML-config-file-name" | -x "XML-config-string" [-i[f] "BIAR-file-path"]
   [--help]
   ```

host

Specifies the BusinessObjects CMS host.

port

(Optional) Specifies the BusinessObjects CMS port.

Default: 6400

user

Specifies the BusinessObjects CMS user.

password

(Optional) Specifies the BusinessObjects CMS password.

Default: (empty string)

security

(Optional) Specifies the BusinessObjects Security.

Default: secEnterprise

XML-config-file-name

Specifies the XML configuration file name or absolute path. If you only specify the file name, the BIConfig folder is used to search for the configuration file.

BIAR-file-path

(Optional) Specifies the BIAR file name or absolute path. If you only specify the file name, the BIConfig folder is used to search for the configuration file.

The utility generates the BIConfig.log file in the BIConfig folder. This log displays the status of the import.

Note: If the BIAR file does not import successfully, the log file displays any error messages.

6. After you import the BIAR file, add users to the *CCA to CMDB Export Group* in CA Business Intelligence, so that they have full control to access the CA CMDB Export Report, the CCA_CMDB universe, and CCA_CMDB connections on importing the BIAR file.

Note: For more information about adding users to groups in CA Business Intelligence, see the *CA Business Intelligence* r3.2, or r3.3 SP1 *Administration Guide*.

Modify the oledb.sbo File

If you use an OLE DB while importing the BIAR file, you *must* modify the *oledb.sbo* file in your CA Business Intelligence directory. Modifying this file prevents an error when using the OLE DB with SQL Server.

To modify the file

1. Open the *oledb.sbo* file located in the following default installation directory:

   %BOXI_installation_directory%\BusinessObjects Enterprise 12.0\win32_x86\dataAccess\connectionServer\

2. Locate the *<DataBase Active="Yes" Name="MS SQL Server 2005">* line and edit the following parameters:

   Provider CLSID

   Change the value to **SQLOLEDB**.

   Enumerator CLSID

   Change the value to **SQLOLEDB Enumerator**.

3. Restart the Server Intelligence Agent (SIA).

   The OLE DB changes take effect.

SQL Server Example

The following example shows the sample XML file for SQL Server:

```xml
<?xml version="1.0"?>
<biconfig version="1.0">
  <!-- Import BIAR file -->
  <step priority="1">
    <add>
    <biar-file name="C:\biconfigmuthu\ccacmdb.biar">
            <networklayer>OLE DB</networklayer>
            <rdms>MS SQL Server 2005</rdms>
            <username>ccartm</username>
            <password>ccartm</password>
            <datasource>ccartm</datasource>
            <server>testpc</server>
        </biar-file>
    </add>
  </step>
</biconfig>
```

Oracle Example

The following example shows the sample XML file for Oracle:

```xml
<?xml version="1.0"?>
<biconfig version="1.0">
  <!-- Import BIAR file -->
  <step priority="1">
    <add>
    <biar-file name="C:\biconfig\CCA_CMDB_Report.biar">
            <networklayer>Oracle OCI</networklayer>
            <rdms>Oracle 10</rdms>
            <username>ccaserver</username>
            <password>ccaserver</password>
            <datasource>ORA</datasource>
            <server>testpc</server>
        </biar-file>
    </add>
  </step>
</biconfig>
```

Import the BIAR File with the Import Wizard

You can import the Business Intelligence Archive Resource (BIAR) file by using the Import Wizard, but you can also use the BICONFIG utility. This file contains the CA CMDB Export report and the CA Business Intelligence Universe required to completing the integration.

Note: If you use the Import Wizard, you *must* modify the Universe connection manually by logging in to the Universe Designer.

To import the BIAR file

1. Click Start, Program Files, BusinessObjects XI Release 3.1, BusinessObjects Enterprise, Import Wizard.

   The Import Wizard appears.

2. Click Next and select Business Intelligence Archive Resource (BIAR) File as the source and browse to select the BIAR file.

   For example, the file is named *CCA_CMDB.biar*.

3. Enter the username and password for your destination Business Objects XI Central Management Server (CMS) and click Next.

   The Import Wizard loads the BIAR file.

4. Click Clear all and perform the following tasks:

   a. Select the Import folders and objects, Import application folders and objects and Import universes options and click Next.

   b. Select the following import scenarios:

      ■ Use the object's unique identifier to determine whether it already exists in the destination system

      ■ Update the destination object. In case of name conflict, rename it

   c. Click Next, disable the Overwrite object rights option, and click Next again.

   d. Select the CCA TO CMDB Export Group and click Next.

      Note: Verify that only the *CCA to CMDB Export Group* is selected and that no other groups or users are selected.

      A message appears indicating that the selected import objects have attached rights.

   e. Click Next and browse to the appropriate report folder that contains BOXI_GRLoader and the CA CMDB Export, for example:

      CA Reports\CA CCA to CMDB

   f. Click Next.

      The Select application folders and objects dialog appears.

5. Select your CA Business Intelligence server and click Next.

    The Import options for universes and connections dialog appears.

6. Select the Import the universes and connections that the selected Web Intelligence and Desktop Intelligence documents use directly option and click Next.

7. Select the CA Business Intelligence universe under CA Universes, CCA_CMDB, CCA_CMDB.

    The Import options for publications dialog appears.

8. Select the Do not import recipients option and click Next.

    The A note on importing reports dialog appears.

9. Click Next.

    The Ready to Import dialog appears.

10. Click Finish.

    The information is imported to the destination environment.

Modify the Database Connection

Use the Universe Designer to modify the database connection. If you imported the BIAR file with the Import Wizard, you *must* modify the database connection with the Designer.

To modify the database connection

1. Click Start, Program Files, Business Objects XI 3.1, Business Objects Enterprise, Designer.

    The User Identification dialog appears.

2. Enter the enterprise system name, username (such as Administrator), password and click OK.

    The Universe Designer appears.

3. Click File, Import.

    The Import Universe dialog appears.

4. Select the CCA_CMDB universe under /CA Universes/ and click OK.

    A message displays that the Universe imported successfully.

5. Click File, Parameters.

   The Universe Parameters dialog appears.

6. Perform the following tasks:

   a. Click Edit.

      The Edit CCA_CMDB connection dialog appears.

   b. Click Back.

      The Database Middleware Selection dialog appears.

   c. Perform the appropriate task for your CA Configuration Automation database:

      ■ For SQL Server, Select Microsoft, MS SQL Server 2005 or 2008 (depending on your CA Configuration Automation database), OLE DB Providers, click Next, change the Universe connection to point to SQL Server and click Next.

      ■ For Oracle, Select Oracle, Oracle Client to change the Universe to point to Oracle and click Next.

      The Login Parameters dialog appears.

   d. Enter your username (for example, cca*server*), password, and service of the Oracle server (such as *ora*) and click Test Connection.

      A message appears indicating that the server is responding.

   e. Click Next, Finish.

      The CCA_CMDB connection is modified.

7. Click File, Save.

   The Universe is saved.

8. Click File, Export.

   The Export Universe dialog appears.

9. Select /CA Universes/CCA_CMDB from the Domain drop-down list and click OK.

   The Universe was exported.

Configure the Email and File System Servers in CA Business Intelligence

If you did *not* configure the destination servers during the integration installation, or if you *must* configure them for a specific report instance, you can optionally configure the destination servers of the *CrystalReportJobServer*, *ProgramJobServer*, and *DestinationJobServer*. The File System generates the file that the Email system sends to the user you specify.

You can also select any of the following notification destinations:

File Destination

Sends the output to a specific file location.

FTP

Sends the output to a specific FTP address.

Default Enterprise location

Specifies a default location in your BusinessObjects Enterprise. Click the instance title and use a text editor to open the output.

Note: You access the output of successful instances sent to any destination from the History of the object. Click the instance title and use a text editor to open the output.

To configure the email and file servers

1. Click Start, Programs, BusinessObjects XI 3.1, BusinessObjects Enterprise Central Management Console.

   The BusinessObjects Central Management Console (CMC) login page appears.

2. Enter your username and password, click Log In.

   The Central Management Console appears.

3. Click Servers from the Organize column.

   The Servers list appears.

4. Right-click on the first server you want to configure, such as CrystalReportJobServer, and select Destination.

5. Perform the following tasks to configure the Destination File System of the CrystalReportJobServer, where you set the Destination directory and the system credentials:

   a. Select File System from the Destination drop-down list.

   b. Enter the destination directory.

   c. Enable the Use Automatically Generated Name option.

d. Enter your login credentials for Administrator.

e. Click Save and Close.

6. Perform the following tasks to configure the Email server of the CrystalReportJobServer to notify a user about a successful schedule:

a. Select Email from the Destination drop-down list.

b. Complete the following fields:

Domain Name—Specifies the domain name of the Email server.

Host—Specifies the host of the Email server.

Port—Specifies the port of the Email server.

To—Specifies the Email address of the user that gets an Email notification when the report runs.

Subject—Specifies the subject of the email sent when the report runs.

c. Click Save and Close.

7. Select the ProgramJobServer from the Server list on the CMC and configure the Email and File System servers as you did in steps 5 and 6.

8. Select the DestinationJobServer from the Server list on the CMC and configure the Email and File System servers as you did in steps 5 and 6.

The Email and File systems of the CrystalReportJobServer, ProgramJobServer, and DestinationJobServer are configured.

Configure the Program Object in CA Business Intelligence

After you configure the Email and File System servers in CA Business Intelligence, you configure the CMC program object that was imported from the BIAR file. The program file executes the appropriate scripts and you schedule it to launch with the privileged user login of the operating system. Configuring the program objects also lets you add JAR files to the CA Business Intelligence repository, and you can also schedule them like reports. You use the JAR file when CA CMDB is installed on UNIX.

To configure the program object

1. Log in to the Central Management Console (CMC).

   The CMC Home Page appears.

2. Click Applications in the Manage column.

   The Applications list appears.

3. Right-click CMC and select Program Object Rights.
   The Program Object Rights: CrystalEnterprise.Program page appears.

4. Enable the following options:

   a. Select Run scripts/binaries.

   b. Select Run java programs.

   c. Select Use impersonation.

5. Select the Schedule with the following operating system credentials option and enter your user name and password.

6. Click Save.

   The program object is configured.

How to Configure the GRLoader Environment in CA Business Intelligence

If you want to configure a different event, configure GRLoader in CA Business Intelligence manually. Set up a schedule for GRLoader to optionally email the CA CMDB report to a user that you specify. The report triggers an event on the successful schedule of the report, and BOXI_GRLoader waits for *XML Schedule* event.

The following information provides an overview of how to complete the integration from the Central Management Console (CMC):

1. Create a schedule event (see page 25) for the XML file.

2. Do *one* of the following:

   a. Schedule BOXI_GRLoader and the CA CMDB Export report.

   b. If CA CMDB is on a different computer, execute GRLoader.

   c. Run GRLoader from a remote MDR.

   The XML file is generated and executes the XML Schedule, which starts the schedule of the BOXI_GRLoader program object and loads data into the CA CMDB database.

Run GRLoader from a Remote MDR

Use GRLoader to push data from a remote MDR to CA CMDB in one of the following ways:

- Copy the XML data from the remote system that runs the MDR to the system running CA CMDB, and then execute GRLoader on the CA CMDB system.

- Execute GRLoader on the remote MDR system itself.

Important! If you want to run GRLoader manually, see the *CA CMDB r12.7 Technical Reference Guide*.

To prepare to execute GRLoader from a remote system that does not have CA CMDB installed

1. Verify that the Java Runtime Environment (JRE) version 6.0 or higher is installed and available.

2. Copy the contents of the %NX_ROOT%\java\lib directory from the CA CMDB system to a directory on the remote system where you want to run it. This remote directory is named %ROOT%.

3. Create a file named *NX.ENV* in the %ROOT% directory:

4. Open the file with a text editor and add the following line:

   @NX_LOG=*path_that_contains_the_log_files*

5. Create the %ROOT%\site\cfg directory.

6. Create the %ROOT%\log directory.

To run GRLoader from the remote system, execute the following command:

```
java -Xmx512M -cp %ROOT% -jar %ROOT%/GRLoader.jar -N %ROOT% -u [userid] -s [server]
-i [other GRLoader options]
```

where %ROOT% is the fully qualified path containing the files that were copied in Step 2.

Configure BOXI_GRLoader.jar

Use the *BOXI_GRLoader.jar* tool to auto-schedule GRLoader from CA Business Intelligence. This step is required only when you want to schedule GRLoader and the CA CMDB Export Report from CA Business Intelligence. You can use the tool when CA CMDB is installed on UNIX or Windows. At the time of configuring the program objects, add the JAR files to the CA Business Intelligence repository, or alternatively they can also schedule them in the same way as reports. After you import the BIAR file, the BOXI_GRLoader program object is imported automatically to the \CA Reports\CCA to CMDB\ folder.

1. Right-click the BOXI_GRLoader program object and select Default Settings.

2. Complete the Program Parameters fields:

    Arguments

    Specifies the arguments you want to pass while executing the GRLoader.

    Example: -cfg C:\myconf.txt

    Note: For more information about parameters or about how to configure the configuration file when you use the *–cfg* parameter, see the *CA Service Desk Manager CA CMDB r12.7 Technical Reference Guide*.

    Important! When you set the parameters to run GRLoader in CA Business Intelligence, do *not* pass *-slump* as an option in the GRLoader command. The slump port does *not* exist on the CA Business Intelligence server.

    The following example shows the minimum required arguments to run GRLoader from CA Business Intelligence:

    ```
    -s http://<hostname>:port -u <username> -p <password> <-i path to input file>
    -n -a -N <Path to the %ROOT%> -E
    ```

    Working Directory

    Specifies the directory where you copied the GRLoader Library files.

    Example: %ROOT%

    Class to Run

    Specifies the wrapper class you want to run.

    Example: cca2cmdb.BOXI_GRLoader

    Class Path

    Specifies the location of GRLoader.jar in the system and the directory where you copied all of the library JAR files related to GRLoader.

    Example: C:\MyGRLoaderLib\GRLoader.jar

    Important! If CA CMDB is not available on the same computer where you installed CA Business Intelligence, you *must* copy the files.

3. Select Program Logon from the left pane and enter your login credentials.

   These credentials specify the operating system you used to access the working directory and JAR files you previous specified in the Program Parameters.

4. Verify that you enabled the email destination in the Crystal Reports Job Server, select Destination from the left pane and perform the following tasks:

   a. Select Email from the Destination drop-down list.

   b. Enter an email address in the From and To fields.

   c. Enter **CMDB Export Report** as the Subject.

5. Click Save and Close.

   The BOXI_GRLoader program is configured to execute with the correct arguments.

GRLoader Program Object Parameters

You can provide arguments through the conf.txt file. The following lists the fields defined in the conf.txt file:

- grloader.userid=xxxx

- grloader.password=xxxx

- grloader.server=http://hostname:port

- grloader.inputfile=C:\\temp\\abc\\example

- grloader.nxroot=xxxx

- grloader.allowupdate=yes

- grloader.allowinsert=yes

- grloader.overwriteerrorxml=yes

You can also enter the arguments directly into the Argument field. The following example shows the minimum required arguments to run GRLoader from CA Business Intelligence:

```
-s http://<hostname>:port -u <username> -p <password> <-i path to input file> -n -a
-N <Path to the %ROOT%> -E
```

Hostname

Specifies the name of host where CA CMDB is installed.

Port

Specifies the port where the CA CMDB Server is running.

Username

Specifies the username to log in to the CA CMDB Server.

Password

Specifies the password to log in to the CA CMDB Server.

Path to input file

Specifies the path and the xml file generated by running the CA Business Intelligence report.

Path to the %ROOT%

Specifies the location where the GRLoader is copied.

Note: For more information about arguments that you can pass to GRLoader, see the *CA CMDB r12.7 Technical Reference Guide*.

Scripts

The integration includes scripts, which are the most important part of the functionality. Consider the following information to help ensure that the scripts work properly:

■   Execute the scripts first before any activity.

■   Verify that the script execution creates the required database objects.

■   Refer to the BIConfig.log file located in the BIConfig folder to troubleshoot any errors related to the utility.

■   Verify that the JAVA_HOME variable setting includes the BIConfig utility location.

■   View the CAFApp.log file to track any errors related to the CAFPage implementation. Locate this log file in the logs folder of the web application server of your CA Business Intelligence installation.

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