IBM Cúram Social Program Management

IBM

Cúram Business Intelligence Actuate Deployment Guide

Version 6.0.5

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Chapter 1. Introduction

1.1 About this Document

The purpose of this guide is to describe how to deploy Cúram Business Intelligence and Analytics (BIA) content using the Actuate tools, if required - these tools are licensed separately by Actuate Corporation.

Business Intelligence and Reporting Tools (BIRT) Designer Professional is an (Eclipse) open source component, developed by the Actuate Corporation, which provides a development and execution environment for BIA content. Cúram makes use of BIRT Designer Professional primarily as a tool for the development and execution of charting and tabular data with the aim of providing decision support information for front line staff (case workers), line managers and senior managers in the organization. Actuate Corporation also offer additional, commercially licensed, development tools and execution environments which can be used with BIA content.

This document describes how BIA content can be deployed into the Actuate tools.

1.2 Prerequisites

This guide is intended for any reader who will be deploying BIA content using the Actuate tools.

1.3 Audience

Readers should have a good working knowledge of Eclipse and BIRT Designer Professional.

Chapter 2. Actuate Tooling Overview

2.1 Deployment Tools

Actuate has a range of iServer offerings, each of which offers different levels of functionality. However, they are all based around the same architecture and as such the steps in this guide should be applicable to all versions. These steps have been verified with Actuate iServer Enterprise version 11 Service Pack 1. If you are using a different tool or version it may be the case that some of the steps need to be performed differently and you'll need to confirm this against the documentation provided with your Actuate products.

2.2 Development Tools

Actuate offer a tool called Business Intelligence and Reporting Tools (BIRT) Designer Professional which is a replacement for the open source BIRT Designer. It offers a large number of enhanced features, in particular it has built in integration with the iServer tools, which allows content to be loaded directly into an iServer instance.

Chapter 3. BIRT iServer

3.1 Configure iServer

These steps are necessary to configure iServer to use custom plug-ins supplied with BIA and all BIA content to connect to the Cúram database(s). They should only need to be performed when iServer is initially installed or when updates to the custom plug-ins are issued. Once all these steps have been performed it is necessary to restart the iServer system. In order to do this you must select "Stop system" from the BIRT iServer Configuration Console, using the operating system to restart the "Actuate 11 BIRT iServer" service and finally you must select "Start system" from the BIRT iServer Configuration Console.

3.1.1 Installing custom plug-ins

BIA uses custom plug-ins to support the Adobe Flex widgets used to render certain chart types. The process for installing custom plug-ins in general is described in the "Deploying BIRT reports to BIRT iServer" manual, supplied with BIRT iServer, for convenience the steps required are listed below:

- Copy the files with a naming convention of "curam.xxx.jar" from WEB-INF\platform\plugins\ to $ACTUATE_HOME\iServer\MyClasses\eclipse\plugins.
- Copy all the files (but not the BIRT folder) from `$CURAM_DEVELOPMENT_HOME\BIApp\CuramBIRTViewer\ WebContent\webcontent` to `$ACTUATE_HOME\iServer\servletcontainer\iportal`

3.1.2 Installing JDBC drivers

BIA uses JDBC to connect to the Cúram database(s), in order for this to work the appropriate JDBC driver needs to be available inside iServer. The process for installing JDBC drivers in general is described in the "Deploying BIRT reports to BIRT iServer" manual, supplied with BIRT iServer, for convenience the step required is listed below:

Copy the appropriate (Oracle or DB2® as required) driver jar files from `$CURAM_DEVELOPMENT_HOME\ CuramSDEJ\drivers` to `$ACTUATE_HOME\iServer\Jar\BIRT\platform\plugins\ org.eclipse.birt.report.data.oda.jdbc_XXX\drivers` (where XXX is the version number, for Actuate iServer 11 SP1 this is 2.6.2.v20110326-0603)

3.1.3 Configure data source connection

BIA uses named data sources to connect to the Cúram database(s), in particular the transaction database (CuramDB) and the data warehouse (CuramDM). The latter is only needed where the data warehouse is installed. The process for configuring data source connection in general is described in the "Deploying BIRT reports to BIRT iServer" manual, supplied with BIRT iServer, for convenience the steps required are listed below:

- Create a XML file on the local machine which contains the following:

```
<Config>
  <Runtime>
    <ConnectOptions Type=
        "org.eclipse.birt.report.data.oda.jdbc_CuramDB">
      <Property PropName="odaDriverClass">$DriverClass</Property>
      <Property PropName="odaURL">$CuramDBConnectionURL</Property>
      <Property PropName="odaUser">$Username</Property>
      <Property PropName="odaPassword">$Password</Property>
    </ConnectOptions>
    <ConnectOptions Type=
        "org.eclipse.birt.report.data.oda.jdbc_CuramDM">
      <Property PropName="odaDriverClass">$DriverClass</Property>
      <Property PropName="odaURL">$CuramDMConnectionURL</Property>
      <Property PropName="odaUser">$Username</Property>
      <Property PropName="odaPassword">$Password</Property>
    </ConnectOptions>
  </Runtime>
</Config>
```

Replacing the driver class name, connection URLs, usernames and passwords with the appropriate values.

- Use the BIRT iServer Configuration Console to configure the database connection to point to the file created above. From Server Templates->Advanced, choose Runtime from the list of property settings. Specify the location of the file.

3.2 Upload content

Content can be uploaded using the BIRT iServer Management Console (as described below) or using the BIRT Designer Professional tool (described in the next chapter). It's worth noting that the BIRT Designer Professional allows multiple files to be uploaded in a single operation, significantly speeding up the initial upload on content supplied.

It is important to ensure that the privileges to access all of the resources and reports (as required), are granted to the relevant users/groups.

3.2.1 Configure resource folder and upload resources

Resources are shared artifacts used by multiple reports. Each Volume configured for the iServer needs to have these steps applied to make the resources available:

- Create a "resource" folder for volume. Select the volume, click on "Properties..." and select the folder created as the "Resource folder" and save the changes.
- Under the "resource" folder created above, create all folders under $CURAM_DEVELOPMENT_HOME\BIApp\ CuramBIRTViewer\WebContent\WEB-INF\bicontent\resources and load the files in these folders into the appropriate folders.

  Note: The file actuatelibrary needs to renamed as CEFLibrary and loaded in place of the pre-existing CEFLibrary.

3.2.2 Upload BIA content

The BIA content includes the reports and their associated artifacts. These need to be uploaded when changed.

Create all folders under $CURAM_DEVELOPMENT_HOME\BIApp\CuramBIRTViewer\WebContent\WEB-INF\ bicontent\components and load the files in these folders into the appropriate folders.

3.2.3 Test

Provided the steps have all succeeded, you should be able to run a report from inside the BIRT iServer Management Console as a test, for example: Browse to the following report components\core\birt\

`Participant\EmployerWorkforceReport.rptdesign` and select "Run", specifying a value for the *concernRoleID* parameter (The value of 109 will work, as a valid employer in the Cúram demo data, if this is loaded in your database).

3.3 Cúram Administration - update Viewer Configuration

The default configuration of the application is to use the open source BIRT viewer, repackaged as the CuramBIRTViewer, to view all reports. The following steps will change this configuration to use an iServer instance, it assumes that all the steps to configure the iServer and upload the content have been followed. The full details of the options and parameters for the Actuate Interactive Viewer are described in the "Working with Actuate BIRT Viewers" manual, supplied with BIRT iServer.

- Login to the Cúram application as a System Administrator.
- Select BI Configuration and select edit for the Viewer Configuration.
- Make the following changes:
  - Set the Root to match the Actuate server, *http://$server:8900*.
  - Set the Context to *iportal*.
  - Set the Servlet to *executereport.do*.
  - Set the Report Name Parameter to *__executablename*.

  Save these changes.
- The following parameters also need to be defined:
  - *__wait* with a value of *wait*.
  - *__progressive* with a value of *true*.
  - *__requesttype* with a value of *immediate*.
  - *invokeSubmit* with a value of *true*.
  - *__saveOutput* with a value of *false*.
- If user propagation, for example using Single Sign On, has not been switched on the following parameters need to be defined to automatically login to the iServer
  - *forceLogin* with a value of *false*.
  - *userId* with a value of a valid username.
- For any embedded analytics the toolbar displayed by the Actuate Interactive Viewer is likely to intrude on the space available, and so it should be switched off. This can be achieved by defining an additional parameter *__format* with a value of *html*. This can be defined for the Viewer Configuration, thereby switching it off for all reports, or can be defined for individual reports allowing it to be switched off where desired.

Chapter 4. BIRT Designer Professional

4.1 Configure BIRT Designer Professional

The BIRT Designer Professional is an enhanced version of the open source BIRT designer, as such all the configuration steps described in the "Cúram Business Intelligence BIRT Developer Guide" apply. A brief summary of these steps is included below:

4.1.1 Installing custom plug-ins

BIA uses custom plug-ins to support the flex widgets used to render certain chart types. The process for installing custom plug-ins in general is described in the "Using Actuate BIRT Designer Professional" manual, supplied with BIRT Designer Professional, for convenience the steps required are listed below:

- Copy the files with a naming convention of "curam.xxx.jar" from WEB-INF\platform\plugins to $ACTUATE_HOME\iServer\MyClasses\eclipse\plugins.
- Copy all the files (but not the BIRT folder) from $CURAM_DEVELOPMENT_HOME\BIApp\CuramBIRTViewer\ WebContent\webcontent to $ACTUATE_HOME\BRDPro\eclipse\plugins\ com.actuate.birt.report.viewer_XXX\iportal (where XXX is the version number, for BIRT Designer Professional 11 SP1 this is 11.0.1.v20110326)

4.1.2 Installing JDBC drivers

BIA uses JDBC to connect to the database(s), in order for this to work the appropriate JDBC driver needs to be available inside BIRT Designer Professional. The process for installing JDBC drivers in general is described in the "Using Actuate BIRT Designer Professional" manual, supplied with BIRT Designer Professional, for convenience the step required is listed below:

Copy the appropriate (Oracle or DB2 as required) driver jar files from $CURAM_DEVELOPMENT_HOME\ CuramSDEJ\drivers to $ACTUATE_HOME\BRDPro\eclipse\plugins\ org.eclipse.birt.report.data.oda.jdbc_XXX\drivers (where XXX is the version number, for BIRT Designer Professional 11 SP1 this is 2.6.2.v20110326-0603)

4.2 Import Projects

The following projects need to be imported into the BIRT Designer Professional:

- CuramBIRTViewer from $CURAM_DEVELOPMENT_HOME\BIApp\CuramBIRTViewer

  Note: The preferences under Report Design, need to be updated to specify the resource folder as CuramBIRTViewer/WebContent/WEB-INF/bicontent/resources.

- BIA Content from $CURAM_DEVELOPMENT_HOME\BIContent

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