Important Information

SOME TIBCO SOFTWARE EMBEDS OR BUNDLES OTHER TIBCO SOFTWARE. USE OF SUCH EMBEDDED OR BUNDLED TIBCO SOFTWARE IS SOLELY TO ENABLE THE FUNCTIONALITY (OR PROVIDE LIMITED ADD-ON FUNCTIONALITY) OF THE LICENSED TIBCO SOFTWARE. THE EMBEDDED OR BUNDLED SOFTWARE IS NOT LICENSED TO BE USED OR ACCESSED BY ANY OTHER TIBCO SOFTWARE OR FOR ANY OTHER PURPOSE.

USE OF TIBCO SOFTWARE AND THIS DOCUMENT IS SUBJECT TO THE TERMS AND CONDITIONS OF A LICENSE AGREEMENT FOUND IN EITHER A SEPARATELY EXECUTED SOFTWARE LICENSE AGREEMENT, OR, IF THERE IS NO SUCH SEPARATE AGREEMENT, THE CLICKWRAP END USER LICENSE AGREEMENT WHICH IS DISPLAYED DURING DOWNLOAD OR INSTALLATION OF THE SOFTWARE (AND WHICH IS DUPLICATED IN THE LICENSE FILE) OR IF THERE IS NO SUCH SOFTWARE LICENSE AGREEMENT OR CLICKWRAP END USER LICENSE AGREEMENT, THE LICENSE(S) LOCATED IN THE "LICENSE" FILE(S) OF THE SOFTWARE. USE OF THIS DOCUMENT IS SUBJECT TO THOSE TERMS AND CONDITIONS, AND YOUR USE HEREOF SHALL CONSTITUTE ACCEPTANCE OF AND AN AGREEMENT TO BE BOUND BY THE SAME.

This document contains confidential information that is subject to U.S. and international copyright laws and treaties. No part of this document may be reproduced in any form without the written authorization of TIBCO Software Inc.

TIBCO, The Power of Now, TIBCO Enterprise Message Service, TIBCO ActiveMatrix, and TIBCO Silver are either registered trademarks or trademarks of TIBCO Software Inc. in the United States and/or other countries.

All other product and company names and marks mentioned in this document are the property of their respective owners and are mentioned for identification purposes only.

THIS SOFTWARE MAY BE AVAILABLE ON MULTIPLE OPERATING SYSTEMS. HOWEVER, NOT ALL OPERATING SYSTEM PLATFORMS FOR A SPECIFIC SOFTWARE VERSION ARE RELEASED AT THE SAME TIME. SEE THE README FILE FOR THE AVAILABILITY OF THIS SOFTWARE VERSION ON A SPECIFIC OPERATING SYSTEM PLATFORM.

THIS DOCUMENT IS PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT.

THIS DOCUMENT COULD INCLUDE TECHNICAL INACCURACIES OR TYPOGRAPHICAL ERRORS. CHANGES ARE PERIODICALLY ADDED TO THE INFORMATION HEREIN; THESE CHANGES WILL BE INCORPORATED IN NEW EDITIONS OF THIS DOCUMENT. TIBCO SOFTWARE INC. MAY MAKE IMPROVEMENTS AND/OR CHANGES IN THE PRODUCT(S) AND/OR THE PROGRAM(S) DESCRIBED IN THIS DOCUMENT AT ANY TIME.

THE CONTENTS OF THIS DOCUMENT MAY BE MODIFIED AND/OR QUALIFIED, DIRECTLY OR INDIRECTLY, BY OTHER DOCUMENTATION WHICH ACCOMPANIES THIS SOFTWARE, INCLUDING BUT NOT LIMITED TO ANY RELEASE NOTES AND "READ ME" FILES.

Copyright © 2005-2013 TIBCO Software Inc. ALL RIGHTS RESERVED.

TIBCO Software Inc. Confidential Information
## Contents

**Preface** ......................................................... v
**Typographical Conventions** ........................................ vi
**Connecting with TIBCO Resources** ...................................... vii
  - How to Join TIBCOmmunity ....................................... viii
  - How to Access TIBCO Documentation ............................... viii
  - How to Contact TIBCO Support ...................................... viii

**Chapter 1**  Introduction to Content Management ......................... 1
  - Product Overview .................................................. 2
  - Sample Application .................................................. 2
  - Web Proxy .................................................................. 3

**Chapter 2** Using the Sample Application .................................. 5
  - Installing the Sample .................................................. 6
  - Components of the Sample Project ................................... 7
    - Prerequisites ......................................................... 7
    - The BOM Objects ..................................................... 7
    - The Organization Model .............................................. 10
    - The Forms ............................................................ 10
    - The Business Process .............................................. 11
  - Configuring the Sample Application ................................ 13
  - Running the Sample in Preview ....................................... 15
  - Deploying and Running the Sample Project .......................... 18

**Chapter 3** Using the Properties File ..................................... 21
  - About the Properties File .............................................. 22
  - Repository and User Identification .................................. 22
  - Whitelist Addresses ................................................... 22

TIBCO ActiveMatrix BPM Integration with Content Management Systems
Preface

TIBCO ActiveMatrix® BPM is TIBCO’s next-generation business process management platform. This guide provides the information that you may need to integrate BPM with third-party Content Management systems.

Topics

- Typographical Conventions, page vi
- Connecting with TIBCO Resources, page viii
### Typographical Conventions

The following typographical conventions are used in this manual.

#### Table 1  General Typographical Conventions

<table>
<thead>
<tr>
<th>Convention</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TIBCO_HOME</strong></td>
<td>Many TIBCO products must be installed within the same home directory. This directory is referenced in documentation as <strong>TIBCO_HOME</strong>. The value of <strong>TIBCO_HOME</strong> depends on the operating system. For example, on Windows systems, the default value is <code>C:\Program Files (x86)\tibco</code>. TIBCO ActiveMatrix BPM installs into a directory within <strong>TIBCO_HOME</strong>. The value depends on the operating system. For example on Windows systems, the default value is <code>C:\Program Files (x86)\tibco\amx-bpm</code>.</td>
</tr>
<tr>
<td><strong>BPM_CONFIG_FOLDER</strong></td>
<td>The TIBCO configuration folder used to store product configuration information about the BPM runtime environment.</td>
</tr>
<tr>
<td><strong>code font</strong></td>
<td>Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example: Use <strong>MyCommand</strong> to start the foo process.</td>
</tr>
<tr>
<td><strong>bold code font</strong></td>
<td>Bold code font is used in the following ways:</td>
</tr>
<tr>
<td></td>
<td>• In procedures, to indicate what a user types. For example: Type <strong>admin</strong>.</td>
</tr>
<tr>
<td></td>
<td>• In large code samples, to indicate the parts of the sample that are of particular interest.</td>
</tr>
<tr>
<td></td>
<td>• In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, <strong>MyCommand</strong> is enabled: **MyCommand [enable</td>
</tr>
<tr>
<td><strong>italic font</strong></td>
<td>Italic font is used in the following ways:</td>
</tr>
<tr>
<td></td>
<td>• To indicate a document title. For example: See <strong>TIBCO ActiveMatrix BusinessWorks Concepts</strong>.</td>
</tr>
<tr>
<td></td>
<td>• To introduce new terms For example: A portal page may contain several portlets. <strong>Portlets</strong> are mini-applications that run in a portal.</td>
</tr>
<tr>
<td></td>
<td>• To indicate a variable in a command or code syntax that you must replace. For example: <strong>MyCommand PathName</strong></td>
</tr>
<tr>
<td>Convention</td>
<td>Use</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| Key combinations    | Key name separated by a plus sign indicate keys pressed simultaneously. For example: Ctrl+C.  
|                     | Key names separated by a comma and space indicate keys pressed one after the other. For example: Esc, Ctrl+Q. |
|                     | The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances. |
|                     | The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result. |
|                     | The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken. |
Connecting with TIBCO Resources

How to Join TIBCOMMunity

TIBCOMMunity is an online destination for TIBCO customers, partners, and resident experts. It is a place to share and access the collective experience of the TIBCO community. TIBCOMMunity offers forums, blogs, and access to a variety of resources. To register, go to http://www.tibcommunity.com.

How to Access TIBCO Documentation

You can access TIBCO documentation here:

http://docs.tibco.com

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, contact TIBCO Support as follows:

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:
  http://www.tibco.com/services/support

- If you already have a valid maintenance or support contract, visit this site:
  https://support.tibco.com

Entry to this site requires a user name and password. If you do not have a user name, you can request one.
Chapter 1  

**Introduction to Content Management**

This chapter introduces Content Management systems and describes the BPM CMIS sample application.

### Topics

- Product Overview, page 2
Product Overview

TIBCO ActiveMatrix BPM supports integration with a CMIS (Content Management Interoperability Services)-compliant ECM (Enterprise Content Management) system.

ECM means the systems used to manage, store, and deliver access to content and documents related to business processes.

CMIS is a standard that defines a domain model and a set of bindings that can be used by applications to work with one or more Content Management repositories or systems. BPM supports the published CMIS 1.0 specification, and in this release supports only the CMIS REST interface (Atom/Pub binding).

In this document, product-specific details will be given that support the use of BPM together with two CMIS-compliant ECM systems. These are:

- Alfresco — see http://cmis.alfresco.com/.
- Microsoft SharePoint — see http://sharepoint.microsoft.com

TIBCO ActiveMatrix BPM has been validated against these two products. TIBCO ActiveMatrix BPM can also work with other CMIS-compliant ECM systems, but this document does not cover the specific values or parameters that might be needed to connect with any other such products.

Sample Application

TIBCO ActiveMatrix BPM includes a sample CMIS application. This sample is provided as a zip file containing a TIBCO Business Studio project, CMISSample. The project contains forms which you can run either using the Preview facility or by deploying to your BPM server.

If your TIBCO Business Studio connects with TIBCO ActiveMatrix BPM using https, you cannot use the Preview functionality to preview the sample form. This is a result of the way that TIBCO Business Studio handles the connection.

As provided, the sample application can connect to both Alfresco and Microsoft SharePoint services, and display lists of documents provided by those services on the same form. You can then select a document from that list and, assuming you have the appropriate viewer installed, display the document in a browser window.

Using the information in this guide, you can customize the sample application provided to connect with other CMIS-compatible content management services.
Web Proxy

The CMIS sample also includes a web proxy. This acts as a gateway for TIBCO ActiveMatrix BPM to the ECM systems that expose their services defined by CMIS version 1.0 as REST services, using the Atom/Pub binding.

A properties file is used to configure the web proxy; see Chapter 3, Using the Properties File for further details of the settings in this file.
Chapter 2  Using the Sample Application

This chapter describes how to set up the sample application provided, and how to use it to connect to a content management system.

Topics

- Installing the Sample, page 6
- Components of the Sample Project, page 7
- Configuring the Sample Application, page 13
- Running the Sample in Preview, page 15
- Deploying and Running the Sample Project, page 18
Installing the Sample

To find the sample CMIS application supplied with TIBCO ActiveMatrix BPM:

1. Go to the following location:
   
   \`\`TIBCO_HOME\bpm\n.n\doc\html\Integration with Content Management Systems\samples\amxbpm-cmis-sample.zip\`
   
   where \`n.n\` is the version of BPM that you have installed. This file contains the
   folder \`amxbpm-cmis-sample\`.

2. Start TIBCO Business Studio.

3. Right-click in the Project Explorer and from the popup menu select **Import > Existing Studio Projects into Workspace**.

4. In the **Select Archive File** field, browse to the location of the zipped
   \`amxbpm-cmis-sample.zip\` file.

5. The project **CMISSample** is listed in the **Projects**: field. Press **Finish**.

6. Ignore any **Warning** symbols that are displayed.

See “Importing Existing Studio Projects into Workspace” in the **TIBCO Business Studio™ Process Modeling User’s Guide** for more information on importing projects.
Components of the Sample Project

The **CMISSample** project contains:

- Forms from which you can access either or both of the ECM systems supported by the sample, and the necessary supporting data for the forms.
- Two Business Object Models (**CMISObjects.bom** and **CMISSample.bom**), containing business objects that model the data for the forms.
- An organization model.
- A business process.

Prerequisites

Before you use the project, ensure that:

- You have installed the sample project to Studio as described in *Installing the Sample*.
- The properties file for the sample, **cmisproxyconfig.properties**, is installed along with the other BPM properties files in the folder `BPM_CONFIG_FOLDER/bpm/configuration/` on the BPM server, and has been configured according to the instructions in *Chapter 3, Using the Properties File*.
  
  (On Windows platforms, the default value for `BPM_CONFIG_FOLDER` is `C:\ProgramData\amx-bpm\tibco\data`.)
- Once you have deployed the project to your TIBCO ActiveMatrix BPM runtime, you must have a user set up and mapped in the Organization Browser to the role of Document Reviewer before you can run an instance of the process.

The BOM Objects

The sample project contains two Business Object Models:

- **CMISSample.bom**
- **CMISObjects.bom**
CMISSample.bom contains the following objects:

- Four classes. These are mutually exclusive, so only one of the four can be set at any one time:
  - The **CMISServer** class contains information required for the connection to the ECM system. For example, one instance of this class can contain the values for Alfresco and another for SharePoint.
  - The **CMISQuery** class is used for a query to the ECM system.
  - The **CMISDocDisplay** class controls how many documents to display in the form.
  - The **BPMServer** class contains the information for the connectivity to ActiveMatrix BPM.
- The **CMISVendor** enumeration lists the available ECM system vendors. In the sample, these are Alfresco and SharePoint.
CMISObjects.bom contains the following objects:

- The **CMisObject** class contains parameters that provide the information about the documents that will be in the list displayed in the form—for example the document name, creator, and ID.
- The **CMisObjectList** class contains a list of **CMISObjects**.
The Organization Model

The sample project includes an organization model which contains a Group called **Document Reviewer**. Once you have deployed the sample application on your BPM runtime, you must assign at least one user to the **Document Reviewer** group before you can run an instance of the process.

![Organization Model](image)

The Forms

The sample contains two forms.

- **CMIS.form** is an embeddable form (a template) that is used to display the list of documents handled by the appropriate ECM system. When you display the form in preview mode — or indeed when it is run — it takes a set of parameters that identity the ECM system to which it is intended to connect.

Multiple instances of **CMIS.form** could thus be used to connect to multiple ECM systems. However, you would need to modify the **CallToCmis** JavaScript in order to permit multiple instances of the same ECM system in a single parent form.

The form uses standard TIBCO controls and functionality. See the *TIBCO Business Studio™ Forms User’s Guide* for more information on these.
- **Parent.form** is a form in which two copies of **CMIS.form** are embedded, one for each of the two validated ECM providers.

The Business Process

The sample includes a business process, **CMISSample-Process**, with corresponding business service.
It contains two tasks:

- **Script Task**: This task runs a script which configures the settings for the sample application.
- **Review Claim**: This is a typical user task which might use documents accessed from the ECM systems.
Configuring the Sample Application

Before you run the **CMISSample** application, you need to configure it with details including the location of the BPM server. You can configure the sample application in either, or both, of the following ways:

- If you want to view the form using the TIBCO Business Studio Preview facilities, you need to specify settings in the JSON files that are generated when you select to preview a form.

- If you want to deploy the sample application, you need to specify the settings in the script task in the **CMISSample** process.

In either case, you need to specify values for the following items:

<table>
<thead>
<tr>
<th>Data</th>
<th>Meaning and example value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repository details</td>
<td>Details needed to connect to the CMIS repository. There must be one set of these parameters for each repository that is used: for example, in the sample as delivered, these details are duplicated for Alfresco and for SharePoint. For example:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SharePointCMISServer = com_tibco_cmissample_Factory.createCMISServer();</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISServer.environmentName = &quot;SharePoint&quot;;</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISServer.hostname = &quot;uk-spoint&quot;;</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISServer.port = 80;</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISServer.repository = &quot;b3d47494-1cba-4cba-9a4f-754aab8d0a03&quot;;</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISServer.contextPath = &quot;sites/cmisrepo/_vti_bin/cmis/rest&quot;;</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISServer.useHTTPS = false;</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISServer.vendor = CMISVendor.SHAREPOINT;</td>
</tr>
<tr>
<td>Query details</td>
<td>Details needed for a query to the CMIS system. There must be one set of these parameters for each repository that is used: for example, in the sample as delivered, these details are duplicated for Alfresco and for SharePoint. For example:</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISQuery = com_tibco_cmissample_Factory.createCMISQuery();</td>
</tr>
<tr>
<td></td>
<td>SharePointCMISQuery.folderName = &quot;Userspace&quot;;</td>
</tr>
<tr>
<td>Document display</td>
<td>This parameter records how many records should be displayed at once on the form. For example:</td>
</tr>
<tr>
<td></td>
<td>CMISDocDisplay = com_tibco_cmissample_Factory.createCMISDocDisplay();</td>
</tr>
<tr>
<td></td>
<td>CMISDocDisplay.maxResults = 20;</td>
</tr>
</tbody>
</table>
The exact way that you set out these details varies between the json files for the forms and the script task in the business process. For example, the following line from a json file:

```json
{ "$param":"AlfrescoCMISQuery", "$value":
  {"$type":"com.tibco.cmissample.CMISQuery", folderName": "Userspace","folderPattern": ","docNamePattern": ","query": "}
}
```

corresponds to the following line in the script task:

```java
AlfrescoCMISQuery = com_tibco_cmissample_Factory.createCMISQuery();
AlfrescoCMISQuery.folderName = "Userspace";
```

---

<table>
<thead>
<tr>
<th>Data</th>
<th>Meaning and example value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The following item is only entered in the JSON files</strong></td>
<td></td>
</tr>
<tr>
<td>BPM server details</td>
<td>The details of the BPM server to connect with when using the Preview function. This includes:</td>
</tr>
<tr>
<td></td>
<td>• The host name or IP address. This defaults to localhost.</td>
</tr>
<tr>
<td></td>
<td>• The port number for the BPM server.</td>
</tr>
<tr>
<td></td>
<td>• Whether the https protocol is used for the connection. This defaults to false, meaning that http would be used for the connection.</td>
</tr>
<tr>
<td></td>
<td>For example:</td>
</tr>
<tr>
<td></td>
<td>&quot;hostname&quot;: &quot;10.100.87.112&quot;, &quot;port&quot;: &quot;8080&quot;, &quot;useHTTPS&quot;: &quot;false&quot;</td>
</tr>
</tbody>
</table>

If your TIBCO Business Studio connects with TIBCO ActiveMatrix BPM using https, you cannot use the Preview functionality to preview the sample form. This is a result of the way that TIBCO Business Studio handles the connection.

| **The following items are only entered in your copy of CMIS.data.json** | |
| Username | The name of the user under which BPM is accessed when using the Preview function. For example: |
| | "username", "$value": "Clint Hill" |
| Password | The BPM password for the above username. For example: |
| | "password", "$value": "easyAs2013" |
Running the Sample in Preview

You can use the sample project without needing to deploy it to TIBCO ActiveMatrix BPM, using the Preview facilities of TIBCO Business Studio. To use the sample in Preview:

1. Ensure that TIBCO ActiveMatrix BPM is installed and running.
2. Open Forms>Parent>Parent.form.
3. Click the GWT Preview tab. Two JSON forms are created:
   - Parent.data.json is created in the same directory as parent.form
   - CMIS.data.json is created in the same directory as the embedded cmis.form
4. Make a copy of each of these .json files, in the same folder as the original.

   A warning dialog is displayed if you try to edit an original generated .json file. You should always copy the generated file and edit that instead.

5. Configure the application as described in Configuring the Sample Application by changing the default values in your copies of both Parent.data.json and CMIS.data.json to the correct values for your BPM installation and the CMIS repository (or repositories) you are connecting to.
6. Double-click on Forms>Parent>Parent.form to open it.
7. On the Preview Data tab of the Properties view, for Preview Data File: select the Custom radio button. From the dropdown list, select your copy of the Parent.data.json file - in this example, called Copy of Parent.

8. Select the GWT Preview pane on the form.
9. The form is populated with the list of documents provided by the ECM system. In this sample, that means that the sample documents provided for both Sharepoint and Alfresco are displayed.
10. Select a document. The **Document Attributes** fields are populated with that document’s properties.

11. Double-click on the link to a sample document in the **Document** field. (In some environments you need to right-click the link and select **Open**.) Provided you have a suitable reader application installed for that document format, the document is opened and displayed in a browser window.
Deploying and Running the Sample Project

As well as using Preview, you can deploy and run the sample in BPM. To do this:

1. Deploy the **CMISSample** project to your BPM server.

2. If this is the first time that you have deployed **CMISSample**, the deployment adds the **Document Reviewer** group to the deployed organization model. If so, you should:
   a. Log in to Openspace as a user who has authority to use the Organization Browser.
   b. Use the Organization Browser to assign at least one user to the **Document Reviewer** group.
   c. Log out.

3. Log in to Openspace as the user who has been assigned as Document Reviewer.

4. Select **Business Services** and start a new instance of **CMISSample**.
   Press **OK** on the "Invoked Business Service with no User Tasks" warning.
5. Switch to Work Views. A work item produced by **CMISSampleProcess** is displayed.

<table>
<thead>
<tr>
<th>Name</th>
<th>Process Description</th>
<th>Description</th>
<th>State</th>
<th>Id</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>DisplayMessage</td>
<td>Display Message</td>
<td></td>
<td>OFFERED</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>ReviewClaim</td>
<td>Review Claim</td>
<td></td>
<td>OFFERED</td>
<td>21</td>
<td>50</td>
</tr>
<tr>
<td>ReviewClaim</td>
<td>Review Claim</td>
<td></td>
<td>OFFERED</td>
<td>22</td>
<td>50</td>
</tr>
</tbody>
</table>

**WORK ITEM SUMMARY**

- Name: ReviewClaim
- Description: Review Claim
- Id: 22
- Priority: 50
- Version: 0
- State: OFFERED
- Distribution Strategy: OFFER
- Start Date: Wed Jun 23 2013 2:54:29PM UTC
- Target Date

**WORK ITEM ATTRIBUTES**

- Attribute 1
- Attribute 2
- Attribute 3
- Attribute 4
- Attribute 5
- Attribute 6
- Attribute 7
- Attribute 8
- Attribute 9
- Attribute 10
- Attribute 11
- Attribute 12
- Attribute 13
- Attribute 14

**PROCESS DETAILS**

- Process Name: CMISSampleProcess
- Process Description
- Process Instance ID: pxm:0a10
6. Double-click to start the item, and the **Parent** form displays.

![Image of form with document attributes](image)

7. Select a document in the list. The **Document Attributes** fields are populated with that document’s properties.

8. Double-click on the link to a sample document in the **Document** field. (In some environments you need to right-click the link and select **Open**.) Provided you have a suitable reader application installed for that document format, the document is opened and displayed in a browser window.
Chapter 3  Using the Properties File

This chapter describes using the CMIS properties file.

Topics

- About the Properties File, page 22
About the Properties File

The properties file `cmisproxyconfig.properties` is supplied with the CMIS sample application. It is located together with other ActiveMatrix BPM properties files, under the folder `BPM_CONFIG_FOLDER/bpm/configuration/`. On Windows platforms, the default value for `BPM_CONFIG_FOLDER` is `C:\ProgramData\amx-bpm\tibco\data`.

The file is used to obfuscate the user name for the CMIS sample, and to act as a gateway to the content management systems.

The first entry in the file is the `monitor.enable` property which is standard in BPM properties files. See the chapter "Configuring TIBCO ActiveMatrix BPM Components" in *TIBCO ActiveMatrix BPM Administration* for this property and for general information on using properties files.

The remaining entries cover:

- Repository and User Identification
- Whitelist Addresses

Repository and User Identification

The username and password used to log in to a content management system can be supplied from this file. You can define a series of repository locations with the username and password for each, each set separated by commas. Enter values in the form:

```
<repolocation;encodedcredentials>
```

where `encodedcredentials` is:

```
username:password
```

encoded as Base64. You must encode the username:password combination as one string, including the colon. Several tools that you can use to perform the Base64 encoding are publicly available.

Whitelist Addresses

The web proxy component of the CMIS sample can connect only to those destinations that are specified in the properties file. These permitted addresses are referred to as "whitelist" addresses.
In the `cmisproxyconfig.properties` file you can specify both whitelist URLs and whitelist domains. Either may be http or https addresses. A destination address must match a whitelist URL exactly, including any query string or other parameters that form part of it, in order to be accepted. If it does not match, the destination is then compared to the defined whitelist domains to see if it matches any of those.

For example, if the configuration file contains the following:

```properties
whiteListDomains=http://anotherdomain:80/docsite
```

then:

- A call to `http://targetdomain:80/docsite/repo1/report2012?id=D19` will fail, because it does not exactly match any defined whiteListUrl. It will be checked against the whiteListDomains list, and will fail there as well.
- A call to `http://anotherdomain:8080/docsite/repo1/report2012?id=D19` will be checked against whiteListUrls and will fail. It will then be checked against whiteListDomains, and will be accepted.