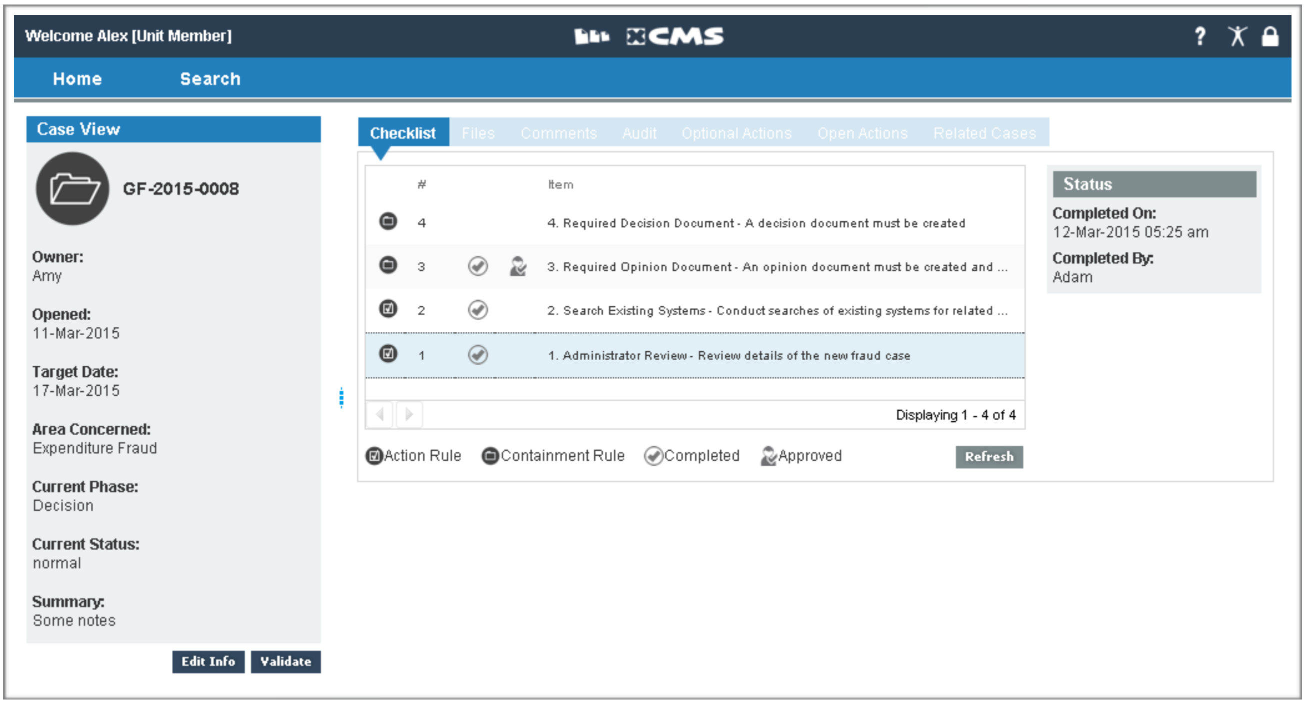
xCelerated Case Management System

xCP 2.2 Sample Application

Deployment Guide



Abstract

Outline of the deployment steps and demonstration scenario for the xCelerated Case Management System sample application.

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EMC²

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Executive Summary

The xCelerated Case Management System (xCMS) sample application allows a business administrator to configure a case model at runtime, and manage the subsequent execution of that case model.

This application was used at EMC World as part of the hands on labs, and the sample configuration deployed includes the configuration from EMC World so that the labs can be used in addition to the demonstration outlined in this document.

Audience

This document is intended for those wishing to install and demonstrate the sample application.

Introduction

The xCMS sample application demonstrates how a case model can be defined that allows runtime configuration and execution of case types by non-technical business users.

The case type allows the folder structure and one or more phases to be defined that the case must pass through.

Each phase can have rules defined that are either mandatory or optional. Movement between phases can be manual, relying on a user to record that a phase is complete, or automated, based on whether all mandatory rules for that phase have been fulfilled.

Two types of rules can be defined. The first is an action rule, and can simply be a reminder to perform an action of some kind either in the system our outside of the system, such as performing a check in another application. An action rule can also trigger a process such as requesting support from another business unit. The second rule is a containment rule, and it defines that a document of a particular type must be created in the case and approved.

To handle the review and approval of documents, a generic process is utilised that reads a distribution rule defined for the document type, and allows for up to 4 steps in the review process - review, approval, initial sign off & secondary sign off. Rules are scoped based on the document type, case phase, and case type.

Deployment

The xCelerator has been packaged with the use of the Deployment xCelerator to simplify the setup of required cabinets and folders as well as a sample configuration of cases, users and content so that you can begin demonstrating the solution very quickly.

It is essential that you follow the instructions for deployment carefully otherwise aspects of the application may not function as described.

Deployment consists of two steps:

1. Import of the application into xCP Designer and deployment via xMS
2. Post-deployment setup – to set up required artifacts in the repository such as cabinets, folders and content that rely upon artifacts being installed during step 1.

Prerequisites

The application has been configured against the GA build of xCP 2.2 and has only been tested with that build.

Download the *xCMS Release 2.2.0.zip* package which contains several other zip files (*xCP Application [xCMS] Release 2.2.0.zip*, *Deployment Utility [xCMS] Release 2.2.0.zip* and *EMC World 2014 Hands On Lab.zip*). These zip files contain the xCP application to be imported into Designer, the Deployment Utility xCelerator pre-configured for this application and the EMC World lab manual with supporting documents.

Ensure that the key xCP 2.2 services are running. This includes the Content Server, xMS Server, BAM Server, xPlore and the Application Server services that host the supporting applications such as Process Integrator and your xCP applications. Note that the CTS and CIS services are required.

xCP Application

The first step in deployment of the solution is to import the xCP application into xCP Designer. Information on how to do this is provided in the xCP Designer Help.

Once you have imported the application you will need to update the Endpoints and URL Prefix Parameters to reflect your environment settings.

Finally configure a runtime environment from Preferences and deploy the application.

Repository Configuration

It is essential that you run the deployment utility from the Content Server machine so that the FTP Inbound / Outbound settings can be configured. Before executing the deployment utility scripts you will need to edit them to reflect your paths, docbase names etc.

Unzip the deployment utility on the Content Server machine and open the folder. The bin directory contains the libraries needed by the utility as well as the environment configuration file. The Config directory contains one or more XML files that contain the definitions of the artifacts to configure in the target repository. More details about the structure of the XML file can be found in the deployment utility documentation. The Content folder contains files that will be imported into the repository.

Start by updating the file `/bin/dfc.properties` with the settings for your environment.

Also update the file `/Config/post-deploy.xml` and change the repository and hMailServer connection information in the root element:

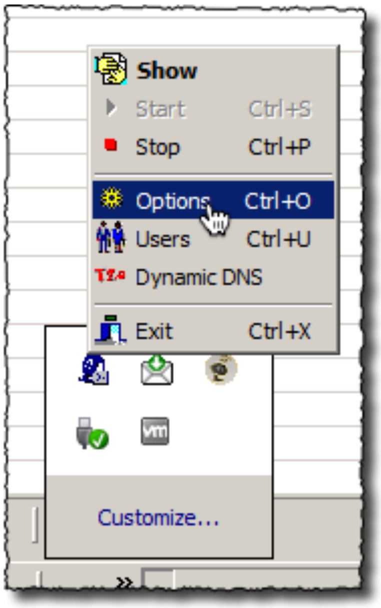
```
<xcpapplication docbase="corp" username="dmadmin" password="demo.demo"
date_format="dd/mm/yyyy hh:mi:ss" mail_password="demo.demo">
```

To configure the repository simply run the batch file `post-deploy.bat` to set up the main cabinet and its required subfolder structure. You can check the output of the utility by opening the file `actions.log`. If execution of this batch file fails then the most likely cause is that the Repository Endpoint in the xCP application was not updated prior to deployment.

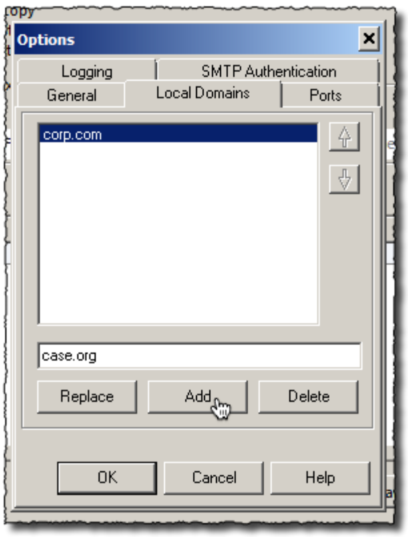
Mail Server

The system sends notification emails to a hardcoded email address of any.user@case.org and listens for incoming emails at the email address xcms.submission@case.org. Configure your mail server and mail client with these accounts. If you are using hMailServer the deployment script will set these up but if not they are configured as follows (screenshots use argosoft mail server).

1. Open the *ArGoSoft Mail Server* Options screen from the system tray.

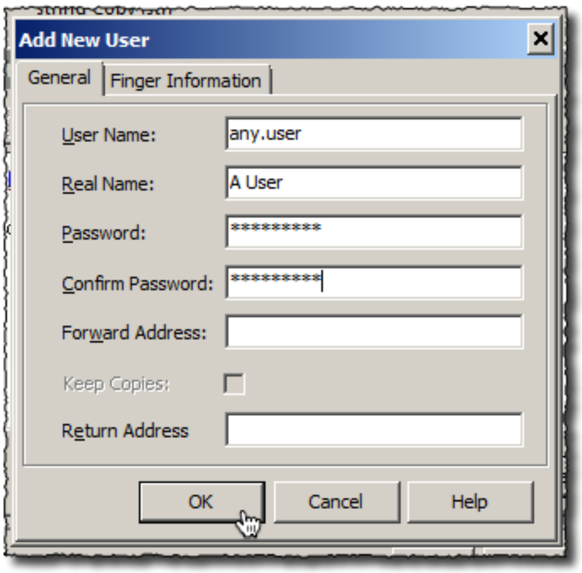


2. Enter a new Local Domain of *case.org* and click Add to add it to the list of domains and then click OK to close the dialog.



3. Open the Argosoft Mail Server Users screen from the system tray and click the Add New User button.

4. Enter a User Name of *any.user* with a Password of *demo.demo* and click OK. Close the dialog.



5. Create a second user called `xcms.submission` with a password of `demo.demo` to be used for email submissions to the system.

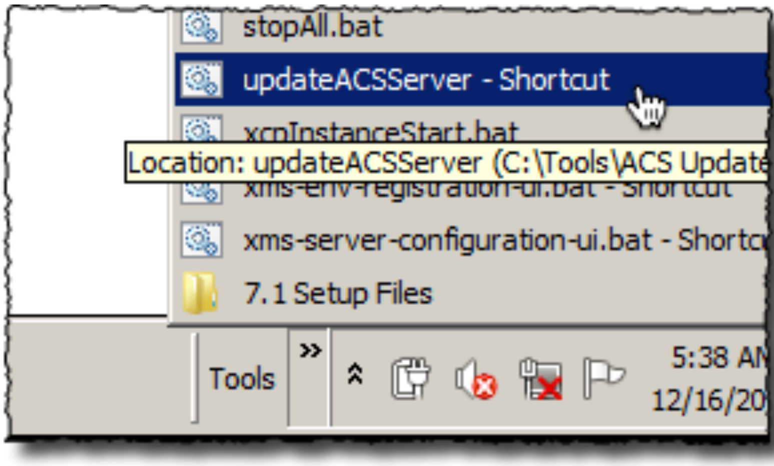
Mail Client

Similarly set up your mail client to connect to the mail server (POP3), and configure an account for the user any.user@case.org.

ACS Server

If the viewer is not working in the client, then the most likely cause is that the ACS server URL is incorrect. From the Tools link on the Start Bar run the batch file to update the URL.

Once you have done that restart the xcpInstance tcServer.



Document Generation

Document generation uses an xCelerator that leverages the Aspose API bundled with Content Transformation Services. The API requires a license and so you need to copy the file `Aspose.Total.Java.lic` from the folder `C:\Documentum\CTS\lib` to the following locations:

```
C:\xCPDesigner\Applications\xCMS\xCMS\target\m2e-webby
C:\tcServer\xcpInstance\bin\winx86_64
```

Scenario Configuration

Application Roles

The following table outlines the application roles and the users that are pre-created in those roles. All users login names are lowercase (e.g. rita, adam etc) and all passwords are `demo.demo`.

Role	Description	Users
System Admin	Business administrators that can create and edit case the configuration of case types.	dmadmin
Registry	Users that manage the registration of documents in the system.	Rita
Unit Admin	Users that belong to one or more business units and are assigned as an administrator	Adam, Barbara
Unit Head	Users that belong to one or more business units and are assigned as the head of unit	Amy, Betty
Unit Member	Users that belong to one or more business units are assigned as unit members	Alex, Alice, Anita, Ben, Beth, Bob

Business Units

For the demonstration scenarios the following business units are configured in the system.

Business Unit	Head	Admin	Users
0.1 - Investigation Selection and Review	Amy	Adam	Alex, Alice, Anita
C.4 - Legal Advice	Betty	Barbara	Bob, Ben, Beth
HR - Human Resources	Amy	Adam	Alex, Alice, Anita
IT - Information Technology	Betty	Barbara	Bob, Ben, Beth
PAY - Payroll	Betty	Barbara	Bob, Ben, Beth

Demonstration Steps

Registry

Registry users manage the recording of documents in the system as records.

Step	User	Actions
1	Rita	Log on as a *document controller* and see *Incoming Documents* waiting to be registered in the system.
2	Rita	Import documents to the system by clicking the **Import Documents** button. Note that sometimes (after a restart) the import dialog does not work until the third attempt! Import a document of **Content Type** *Case Document* and **Document Type** *Other.*
3	Rita	Import PDF and MS Word documents by adding them to the file share `C:/FTP/xCMS/In`. The files should be imported after 30 seconds into the registry list.
4	Rita	Import documents by sending an email to xcms.submission@case.org and attaching the documents to the email. The files should be imported after 30 seconds and show up in the registry list.
5	Rita	Open a document just imported to register it by clicking on the **Doc Number** link. Enter values for the **Document Date**, **Document Type** (choose *Other* for now), **Subject** & **Title**. Click the **Register** button and the document status is changed. The screen reloads and you should now have the option to assign the document to a case or create a new case using the current document. You can also look at the other tabs to see more properties of the document and the discovered metadata (entities) from CIS. You can also add comments to the document. If you are using the SmartLogic integration then the entities tab will display more metadata from SmartLogic.
6	Rita	Click the **Create Case** button. From the pop-up dialog select *General Fraud* as the **Case Type** and leave the **Reference** blank. Click the **Finish** button. The document will be removed from the list of incoming documents as it has been registered. When a new case is initiated in this way, it is assigned to the unit member with the least number of cases.
7	Rita	If there are already cases in the system, at step 5 you can enter a valid case number in the **Case Number** field and the system will validate that it is a real case and allow you to add the document to the existing case.
8	Rita	From the home page click the **Create Case** button to show how cases can be created manually as well if required. Log off.

Unit Members & Administrators

Unit members and administrators manage the day to day handling of cases.

Step	User	Actions
1	Alex	Open up *Thunderbird* mail client. A new email is received notifying Alex that new information has been received.
2	Alex	Click the link in the email to open the application directly at the new document. You will be prompted to log in to the system and then the document view page will load.
3	Alex	Click the **Home** button in the navigation menu to go to the home screen.
4	Alex	The newly created case should appear in the list of **My Cases** at phase *Initiation*. Click the case number to open the case view.
5	Alex	Click the **Edit Info** button to enter further details about the case such as selecting the **Area Concerned**, **Amount of Impact** etc. Click **Save** to save the changes. *MAKE SURE YOU ASSIGN THE CASE TO THE 0.1 UNIT.*
6	Alex	Open the **Optional Actions** tab and select the *Site Visit* entry. Either click the **Initiate Action** button or the initiate action icon to begin the process of organising a site visit. Assign it to the 0.1 unit and enter some details about the request. Adam (the unit Administrator) will receive a new task to arrange the visit. Alex could also initiate the action to collaborate with the Legal unit if required. You can check the status of open actions by going to the **Open Actions** tab. You will see that Adam was also assigned the task of reviewing the fraud case when it was opened.
7	Adam	Log out and in as Adam. From the list of **My Tasks** click the task name *Plan Visit* to open the task view. Click the **Acquire** button to accept the task and enter the details of the visit before clicking the **Complete** button to finish the task.
8	Adam	Next open the *Admin Review* task. Click the case number hyperlink to open the case view in a separate browser tab. Navigate to the folder hierarchy on the **Files** tab and check that a new action folder was created in the case folder to store material collected during the visit. Add a comment on the **Comments** tab. Close the browser tab and click the **Acquire** button followed by the **Complete** button to finish the task.
9	Alex	Log out and back in as Alex and reopen the case. On the **Checklist** tab you will see what mandatory actions are required at this phase. Select item #1 - *Administrator Review* - and notice that it has been marked as completed by Adam.

Step	User	Actions
10	Alex	Select item #2 - *Search Existing Systems*. Alex would go to other information systems to see whether relevant information can be found, and import that into the case folder structure. Click the **Complete** button and enter a comment such as 'No information found' and clicks the **Completed** button. The case rules are validated and because all required actions have been completed the case will be moved to the *Opinion* phase. The phase should be updated immediately but if the phase does not change immediately in the UI, click the **Home** button and refresh the list of cases until the phase has changed to *Opinion*, and then reopen the case view.
11	Alex	Open the **Audit** tab in the case view to show that actions are being tracked in the case. A green arrow in the audit can be clicked to open the item that caused the event, such as marking an item fulfilled or a document review that was completed. These open in a new browser tab.
12	Alex	Go back to the **Checklist** tab to see that a new item has been added. The task is to create a new document. If required the user can enter a comment and mark the action completed without creating the document, but in this instance we want to create the document.
13	Alex	Go to the **Files** tab and click on the *Opinion* folder in the case structure and then click the **Create Documents** button.
14	Alex	Select the *Opinion* document from the **Template** drop down list. Note that the content of the template can be edited to remove or update customer logos and references, but the bookmarks should be left alone as these are used to populate the case information. Enter some text for the **Activities** & **Conclusions** and click **Create** to generate the document. If you get an error when trying to create the document it probably means you haven't deployed the Aspose license file as outlined in the deployment instructions.
15	Alex	Navigate back to the *Opinion* folder and confirm that the document has been created and a new document number assigned. The list of available action icons will depend on the status of the document. You can right-click on the document to bring up the context menu (although there is a bug that results in an error when you do) or click on the document name to view document in a separate tab. From here you can edit the document before closing the tab.

Step	User	Actions
16	Alex	Once you have edited the document click the **Send for Approval** icon next to it to initiate the review process. The action icons will not show once a document has been sent for review. Once in review the distribution rules are checked to determine what type of review is required. If no rule is found then the registry users are sent the document in order to create a rule. For the Opinion document just created the rule has already been created.
17	Alice	Log out and log in as Alice. Open the *Document approval* task. Click the **Acquire** button. For the review and approval process, if a user enters a reason for rejecting the document then a **Reject** button appears, otherwise they have an **Approve** button. Click the **Approve** button to complete the task.
18	Adam	Log out and log in as Adam. Open the *Initial Signoff* task. Click the **Acquire** button and approve the task, entering Adam's password to confirm the approval.
19	Amy	Log out and log in as Amy who is the head of unit. She has a *Secondary Signoff* task to complete. Open the task, acquire it and approve the document. Amy also has to re-enter her password to confirm the approval.
20	Alex	Log out and log in as Alex again. The case has moved to the *Decision* phase because the document was approved, which fulfils the rule to create and approve the opinion document. Open the case and check the Audit trail.
21	Alex	On the **Checklist** tab see that a new item has been added, to create a Decision document. For the sake of the demo we do not need to follow this through as it is a repeat of the Opinion document process, and no distribution list has been set up for the Decision document.
22	Alex	Navigate to the Opinion folder on the Files tab and notice that the Opinion document is marked as approved. Click the documents name to open the document details page in a new tab. Zoom to the bottom of the document preview and check that the electronic sign off from Adam and Amy are recorded.

Head of Unit

Heads of units can manage their portfolio of cases as well as participate in workflows and view reports.

Step	User	Actions
1	Amy	Log on and see a different home page to the unit workers. Amy has a list of cases that are assigned to her unit.
2	Amy	Select a case, note who the Case Owner is and click the **Reassign** button. Amy can select a new case owner.
3	Amy	Amy can interact with the pie chart by checking the **Cases in final phase only** checkbox to filter the information shown.
4	Amy	Click the **Reports** menu option to open the Case Reports view. Amy can interact with the bar chart by selecting a unit's column to see the list of cases assigned to that unit below. It will be necessary to create several different cases for this to be meaningful!

System Administration

System Administrators can manage case templates and distribution rules as well as participate in case handling.

Step	User	Actions
1	dmadmin	Log on and see a similar home page to the unit workers. Admin users however have an additional menu option. Open the Administration > Organisational Units page. New units can be added and the users within the existing units can be modified.
2	dmadmin	Open the Administration > Distribution Rules page. New rules can be added and existing rules can be edited. Open the General Fraud Opinion rule.
3	dmadmin	A bug means that the Case Type value is lost when you open the page. Make sure you reselect General Fraud Case Type when you open this page! A rule is scoped / matched based on the Case Type, Case Phase and Document Type. The Performers can be set for each approval step, but for now only options of Named User and Step Not Required actually work. Click Cancel or Save Changes to save the entry correctly.
4	dmadmin	Open the Administration > Case Templates page (not case types yet). The Case Templates are the folder structures that a case can use. One case template can be shared by several case types. New templates can be created and existing templates edited. The user experience here is not great but it works!
5	dmadmin	Open the Administration > Case Types page. From here new case types can be added and existing case types can be edited. Open the *General Fraud* Case Type.
6	dmadmin	Most of the settings on this page should not be edited. For a demonstration you can select a Case Retention Policy to be applied and enter a target completion value. The screen shows the phases that have been configured for this case type.
7	dmadmin	Open the *Initiation* phase by clicking on it. The phase page shows the settings for the phase and the rules that have been added.
8	dmadmin	Open the *Administrator Review* rule and review the configuration of it, showing how it is started automatically and that it is mandatory.
9	dmadmin	Click the Back button to close the rule, and click Back again to close the phase. Finally open the *Opinion* phase and check the configuration of the *Required Opinion Document* rule. The validity period has no effect in this release.

Extending the Application

Adding Case Types

The application is designed to work around the base case folder type. If you need to use custom attributes for your case model there are two options. The first is to create a new case folder type based on the case folder provided. The second option is to use type fragments for the additional attributes.

If creating a new type completely you will need to do the following:

1. Create the new folder type being sure you make it a subtype of `xcms_case_folder`.
2. Duplicate the provided View page and change its model to the new one. Rename the page with a system name of `<type>_v` e.g. a type called *Tax Case Folder* should have the system name `xcms_tax_case_folder_v`. This naming convention is used to ensure that the hyperlinks work throughout the application.
3. If you want additional metadata on this folder then create an Edit page for it and add an Edit button on View folder page. See the Fraud case folder for an example.

If you are using type fragments then you will need to extend the processes and pages to support the new attributes.

Adding Actions

To add a new business process that can be started as part of an action rule you just need to create a stateful process with a prefix of 'Action' in the name of the process. The simplest option is to duplicate one of the other Action processes and rename it, so that you get the right process data.

Adding Document Types

To add a new document type do the following:

1. Create the new content type, inheriting from Case Document.
2. Duplicate the provided View and Preview pages, and change their model to the new one. Rename the pages with a system name of `<type>_p` for the preview page and `<type>_v` for the view page. The preview page is shown when the user selects a document in the content tree, and the view page is shown in a new tab when the hyperlink is clicked in the folder view.
3. Create a new `xcms_picklist_item` in the folder `/xCMS/Data/Picklists/Document Type` with the details of the new type.

Document Templates

Document generation relies on the use of MS Word (.doc or .docs) files in the repository folder `/xCMS/Configuration/Templates/Document.`

The Java Service that populates them looks for bookmarks in the document and replaces them with values (see the Process *Create Generic Document* for an example of how to use it). The existing page for creating documents uses a simple mechanism to show additional fields for data entry depending on what template you choose, based on values in the keywords attribute of the template.

To add a new document into the system do the following:

1. Import the new template into the folder specified above.
2. Add any keywords to indicate the fields to be entered at time of creation.
3. Update the Create Document Application Page, adding new fields as required and setting the behaviour to show / hide the fields based on the templates keywords.
4. Update the Process Create Generic Document, adding new name/value pair mappings into the parameters of the Generate document activity to populate any additional bookmarks.

It is recommended that you try and re-use bookmark names where possible, so that a generic process like this can be used to populate any number of templates.

Experimental Features

There are a number of experimental features in the application such as context sensitive help, zip file handling and iPhone & iPad support. No guarantees can be made about the functionality of these features. Some of the system administration screens also have fields that are not used in the current release and are hidden at runtime. They have been left for future use.

Known Issues

The following are the known issues with this release:

1. Creating and editing organisational units does not add / remove users to the corresponding application roles (System Admin, Unit Admin etc). Those changes must be made in addition using the *Administration* > *Roles* feature.

2. The right-click action on a document in a case subfolder (e.g. *Opinion*) results in an error and the context menu is not displayed. This means that documents cannot be edited and versioned from here. You have to click on the document name to open the view page and from there you can edit it.

3. Deleting a document does not return to the correct page and you will see an error message.