
User Reference (v10x)

Enterprise Content Management (ECM)

By CMiC

CMiC
Computer Methods
international Corp.

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Enterprise Content Management

Overview – Enterprise Content Management (ECM)

Enterprise Content Management is a CMiC document management and tracking system that integrates Image Manager and Project Management with MS Outlook and MS Word via plug-ins.

Within Outlook, emails and email attachments can be dragged from Outlook and dropped onto an Image Manager folder (including PM Attachments) or file, thereby creating a new document or document revision in CMiC. Word documents can also be modified in the Image Manager interface. Once the documents are loaded into CMiC via ECM, other CMiC programs can use them (e.g. Workflow, PCI's, Subcontracts, Daily Reports etc.).

Pre-requisites

Imaging Security setup for relevant Imaging Document Type

PM Document security set up for Attachments document type (for now only this type is supported).

Ensure IMG Systems Options (IMG_SYSTEM_OPTION) flags for ECM are turned on:

- IMGSO_IMGMGR_FLAG
- IMGSO_PMDOC_FLAG
 - * if the Imaging flag is on, the Imaging folders will be displayed in the Outlook plug-in.
 - * if the PM flag is on, the PM folders will be displayed in the Outlook plug-in.
 - * if the flags are off, the folders do not appear in the Outlook plug-in.

Installation of Plug-Ins

If the Plug-in has not been installed on your system, contact your System Administrator to obtain the required files and run the .EXE for the necessary plug-in, or have them installed by your IT Department.

For **Outlook**, use and run the setup.exe file in the **Outlook Plug-In** folder.

For **Word**, use and run the setup.exe file in the **Word Plug-In** folder.

For silent/parameterized installation:

a. Install Prerequisites:

Install the ECM plugin prerequisites silently using these commands:

```
"Installer Folder Path\VSTOR30\vstor30.exe" /q:a /c:"install /q /I"
```

```
"Installer Folder Path\VSTOR30\vstor30sp1-KB949258-x86.exe" /q:a /c:"install /q /I"
```

b. Install Plugin:

After installing the prerequisites, run the "setup.exe" with the following CML statement:

For normal installation:

```
"Installer Folder Path\setup.exe" /q
```

For Parameterized installation pass the values with following parameters:

SETALLUSERS – possible value (0/1)

SERVICEURL- [servername]/[environmentname]

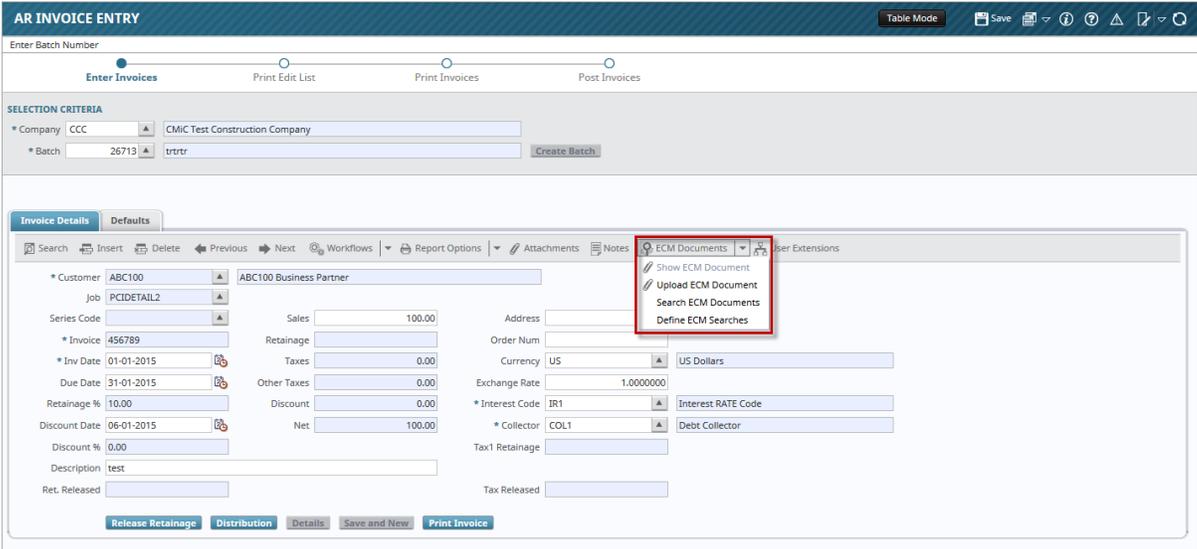
Examples:

```
"Installer Folder Path\setup.exe" /q SETALLUSERS=1
```

```
"Installer Folder Path\setup.exe" /q SETALLUSERS=1 SERVICEURL=  
<servername>:<xxxx>/<environmentname>
```

ECM Documents

Overview – ECM Documents



Example of [ECM Documents] button in Block Toolbar of AR Invoice Entry screen (Pgm: ARINVM – AR Invoice Entry; standard Treeview path: Accounts Receivable > Invoice > Enter Invoices)

The [ECM Documents] button is located on the Block Toolbar of most CMiC Enterprise screens, as shown in the screenshot above. Clicking on this button displays up to four menu options in a drop-down menu, depending on the screen. Since any screen within CMiC Enterprise can be given the ability to query and display images according to the current data record, the options “Define ECM Searches” and “Search ECM Documents” always appear in the drop-down menu. Each screen can have multiple searches defined using the “Define ECM Searches” option. Searches are user defined, allowing for maximum flexibility and customization. When the user is in a particular screen, for example the AR Invoice Entry screen, they can, if at least one image search has been defined, view the images with a relationship to the current record using the “Search ECM Documents” option.

The “Show ECM Documents” and “Upload ECM Documents” menu options are connected to a document type in Imaging and associated to a flysheet. To allow an upload via ECM documents, information must be entered on the screen and saved. Once a document is uploaded, the information on the screen is then entered into the associated flysheet and the image status is set to submitted. The “Show ECM Documents” and “Upload ECM Documents” menu options are only available in the following screens:

- AP Voucher
- AR Invoice
- AR Payment

- GL Transaction Entry
- JB Prepare Billing
- JC Transaction Entry
- PO Job Shipment Receiving
- Vendor Compliance Detail

The following subsections contain more detailed information on each of the menu options in the [ECM Documents] button.

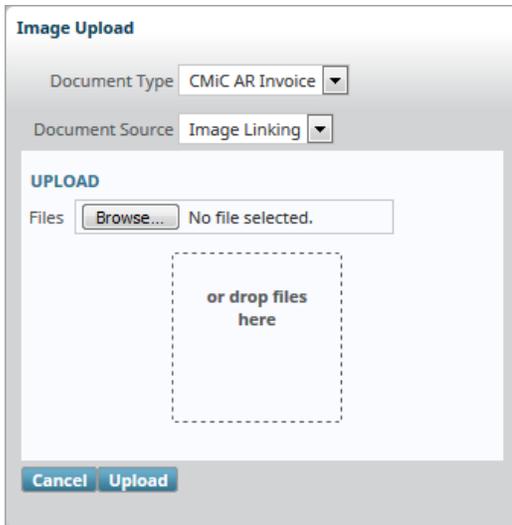
NOTE: The AP Voucher screen will include the “Show ECM Documents” and “Upload ECM Documents” in a future release. JB Prepare Billing refers to the JBBILL screen. The standard Treeview path is Job Billing > Billing > Prepare Billing.

Upload ECM Document

The screenshot displays the 'AR INVOICE ENTRY' application window. At the top, there are navigation tabs: 'Enter Invoices', 'Print Edit List', 'Print Invoices', and 'Post Invoices'. Below this is the 'SELECTION CRITERIA' section with fields for 'Company' (CCC) and 'Batch' (26713). The main area is titled 'Invoice Details' and contains various input fields for customer information (ABC100), job details (PCIDETAIL2), and financial data (Sales: 100.00, Taxes: 0.00, Net: 100.00). A toolbar at the top of the main area includes options like 'Search', 'Insert', 'Delete', and 'Workflows'. A dropdown menu for 'ECM Documents' is open, showing three options: 'Show ECM Document', 'Upload ECM Document' (highlighted with a red box), and 'Search ECM Documents'. Other options like 'Define ECM Searches' and 'User Extensions' are also visible.

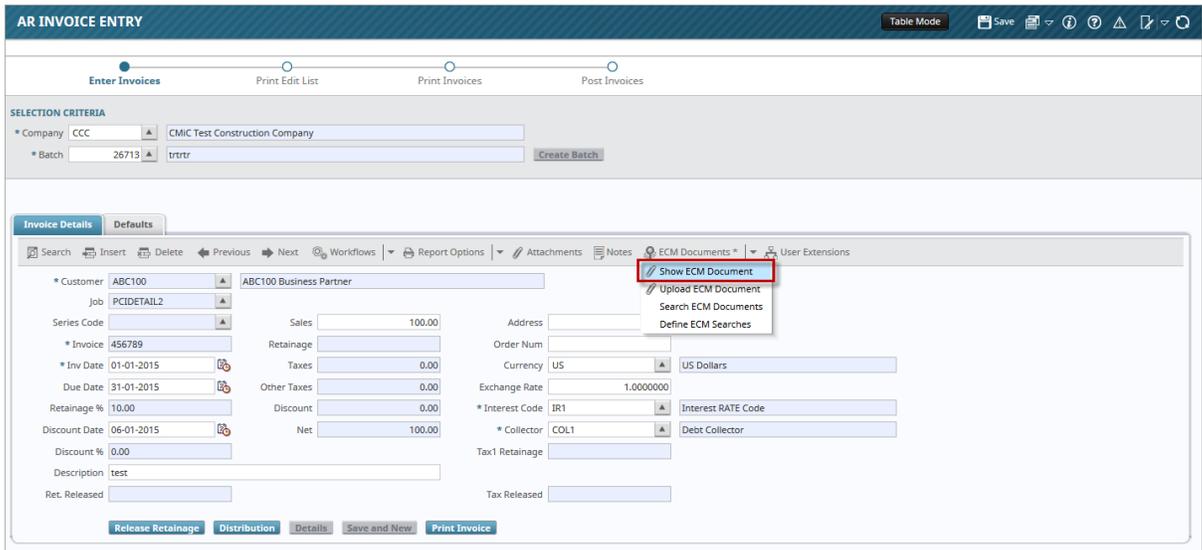
Pgm: ARINVM – AR Invoice Entry; standard Treeview path: Accounts Receivable > Invoice > Enter Invoices

The “Upload ECM Document” option opens the Image Upload pop-up window where the user can select the document type and source and select a file to be uploaded to Image Manager. To upload a file, either click on the [Browse] button or use the drag-and-drop method if the Windows Explorer is already open.



Click the [**Upload**] button to start the uploading process or click [**Cancel**] to exit the window without uploading a file. An asterisk (*) will appear next to the [**ECM Documents**] button to indicate that files have been uploaded.

Show ECM Document



Pgm: ARINVM – AR Invoice Entry; standard Treeview path: Accounts Receivable > Invoice > Enter Invoices

The “Show ECM Document” option will only be enabled if documents have been uploaded using the “Upload ECM Document” option. When this button is clicked, the Image Manager will open in a new tab and display the document uploaded to the associated screen, as well as the flysheet containing the information entered on the screen.

Search ECM Documents

The following screenshot is an example of the results of an image search showing scanned images in CMiC's ECM repository.

The screenshot displays a scanned document titled "Pay Application Form - Page 1" within a software interface. The document is a "SUBCONTRACTOR'S APPLICATION FOR PAYMENT" for CMIC Construction Inc. (1 Liberty Plaza, Suite 900, New York, NY 10002) and The Malcolm Company Inc. (437 Oceanside Drive, Seattle, WA 98116). The project is "Arbor Village".

The main table, "SUBCONTRACTOR'S APPLICATION FOR PAYMENT", lists various construction tasks with their respective amounts and retainage. The total amount is \$575,350.00, and the total retainage is \$7,656.00.

Description	Amount	Retainage
1. ORIGINAL CONTRACT SUM	\$ 575,350.00	
2. less Change by Change Order	\$ -	
3. CONTRACT SUM TO DATE (Line 1 + (-) 2)	\$ 575,350.00	
4. TOTAL COMPLETED & STORED TO DATE (Col G on 6700)	\$ 575,350.00	
5. RETAINAGE:		
a. 10% of completed work (Column 4 on 6700)	\$ 57,656.00	
b. % of stored material (Column 7 on 6700)	\$ -	
Total Retainage (Line 5a + 5b or Total in Column 5 of 6700)	\$ 57,656.00	
6. TOTAL DEDUCTIONS LESS RETAINAGE	\$ 518,904.00	
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 4 less from prior certificates)	\$ -	
8. CURRENT PAYMENT DUE (Line 6 from prior certificates)	\$ 518,904.00	
9. BALANCE TO BE PAID INCLUDING RETAINAGE (Line 8 less Line 6)	\$ 55,445.00	

The interface also shows a "Posted Pay Request Details" table with columns for Task Code, Task Name, Task Amount, Completed Amount, Current Amount, Contract Retainage, Pct Compl, Current Retainage, and Released. The total task amount is \$575,350.00, and the total completed amount is \$576,560.00.

Define ECM Search

The screenshot shows the "IMAGE SEARCH SETUP" pop-up window. The window is divided into several sections:

- PROGRAM:** ARINVFM
- SEARCH:** A table with columns: Name, Active, Standard, Validation Message. The first row is "INVOICES ACROSS COMPANIES" with Active checked.
- DOCUMENT TYPES:** A table with columns: Document Type Name. The first row is "Uncategorized Document".
- CONDITIONS:** A table with columns: Data Column, Operator, Data, OR. The first row is "Customer" with Operator "Equals" and Data "CustName".

Image Search Setup pop-up window launched from the drop-down menu in the [ECM Documents] button

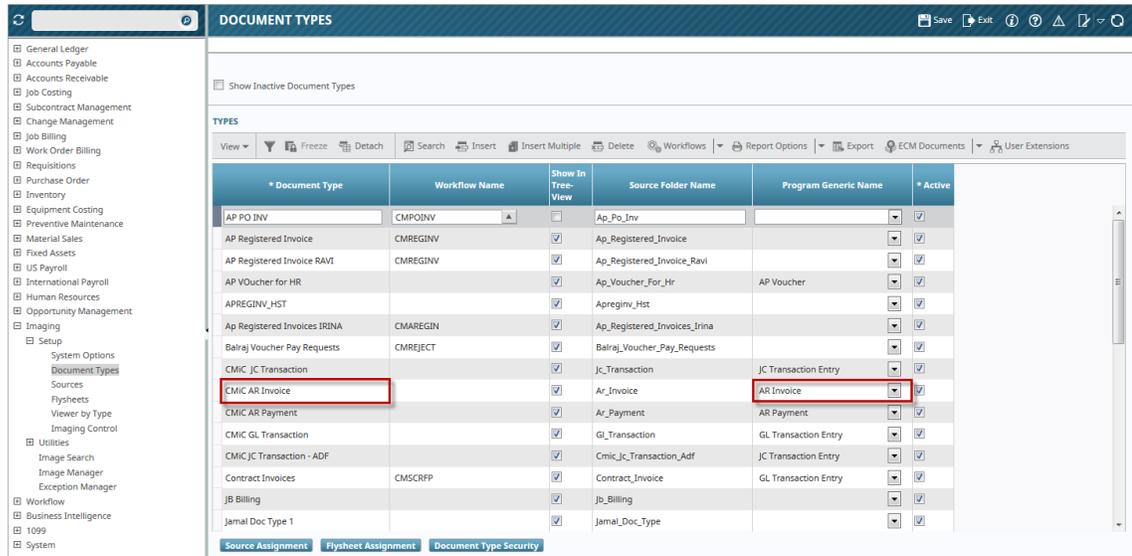
Defining a search is done directly in the CMiC Enterprise screen that requires the search to be added. To define the search, click on the drop-down menu of the [ECM Documents] button and click on the "Define ECM Searches" option.

The Image Search Setup screen is used to define/create the image searches required for the program. The system allows for more than one image search per program.

This facility has been designed to be as simple to use as possible, but it still requires that the user be familiar with table joins, functional operators plus, and/or statements.

ECM Documents Setup

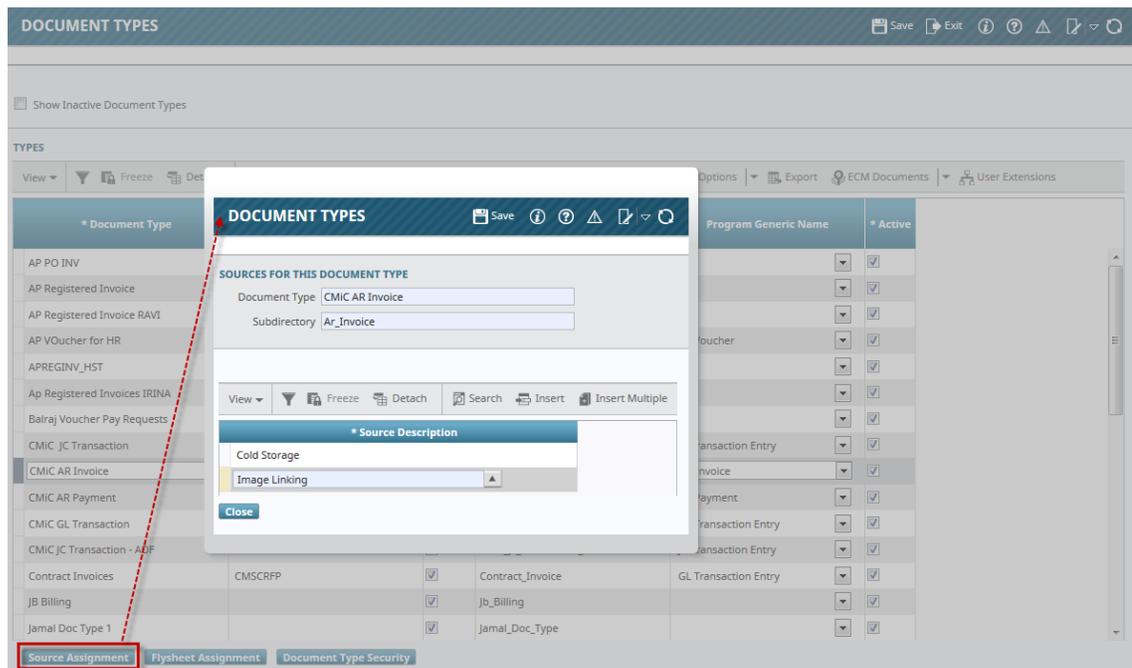
Create Document Types



Pgm: IMGDOCTP – Document Types; standard Treeview path: Imaging > Setup > Document Types

In the Document Types screen, activate the appropriate document type by checking the 'Active' box and select a screen in the Program Generic Name drop-down list to associate the screen with the document type.

Assign Source to a Document Type



Pgm: IMGDOCTP – Document Types; standard Treeview path: Imaging > Setup > Document Types – [Source Assignment] button

Select the document type and click on the **[Source Assignment]** button to open the Source For This Document Type pop-up window. Click on the **[Insert]** button and select a source from the Source Description LOV. Click **[Save]** to save the change and **[Close]** to exit the window.

Assign Document Types to Flysheets

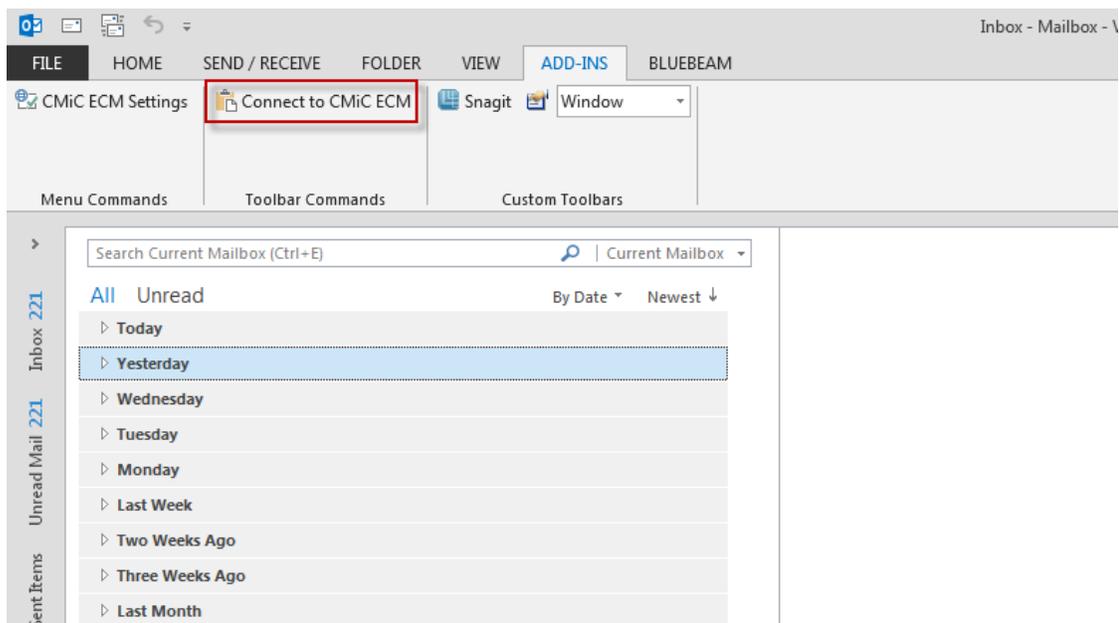
* Document Type	Workflow Name	Show In Tree-View	Source Folder Name	Program Generic Name	* Active
AP PO INV	CMPOINV	<input type="checkbox"/>	Ap_Po_Inv		<input checked="" type="checkbox"/>
AP Registered Invoice	CMREGINV	<input checked="" type="checkbox"/>	Ap_Registered_Invoice		<input checked="" type="checkbox"/>
AP Registered Invoice RAVI	CMREGINV	<input checked="" type="checkbox"/>	Ap_Registered_Invoice_Ravi		<input checked="" type="checkbox"/>
AP Voucher for HR		<input checked="" type="checkbox"/>	Ap_Voucher_For_Hr	AP Voucher	<input checked="" type="checkbox"/>
APREGINV_HST		<input checked="" type="checkbox"/>	Apreginv_Hst		<input checked="" type="checkbox"/>
Ap Registered Invoices IRINA	CMAREGIN	<input checked="" type="checkbox"/>	Ap_Registered_Invoices_Irina		<input checked="" type="checkbox"/>
Balraj Voucher Pay Requests	CMREJECT	<input checked="" type="checkbox"/>	Balraj_Voucher_Pay_Requests		<input checked="" type="checkbox"/>
CMIC_JC Transaction		<input checked="" type="checkbox"/>	Jc_Transaction	JC Transaction Entry	<input checked="" type="checkbox"/>
CMIC AR Invoice		<input checked="" type="checkbox"/>	Ar_Invoice	AR Invoice	<input checked="" type="checkbox"/>
CMIC AR Payment		<input checked="" type="checkbox"/>	Ar_Payment	AR Payment	<input checked="" type="checkbox"/>
CMIC GL Transaction		<input checked="" type="checkbox"/>	GL_Transaction	GL Transaction Entry	<input checked="" type="checkbox"/>
CMIC JC Transaction - ADF		<input checked="" type="checkbox"/>	Cmic_Jc_Transaction_Adf	JC Transaction Entry	<input checked="" type="checkbox"/>
Contract Invoices	CMSCRFP	<input checked="" type="checkbox"/>	Contract_Invoice	GL Transaction Entry	<input checked="" type="checkbox"/>
JB Billing		<input checked="" type="checkbox"/>	Jb_Billing		<input checked="" type="checkbox"/>
Jamal Doc Type 1		<input checked="" type="checkbox"/>	Jamal_Doc_Type		<input checked="" type="checkbox"/>

Pgm: IMGFLYFM – Flysheet Definition; standard Treeview path: Imaging > Setup > Document Types

In the Document Types screen, select the document type and click the **[Flysheet Assignment]** button on the bottom of the screen.

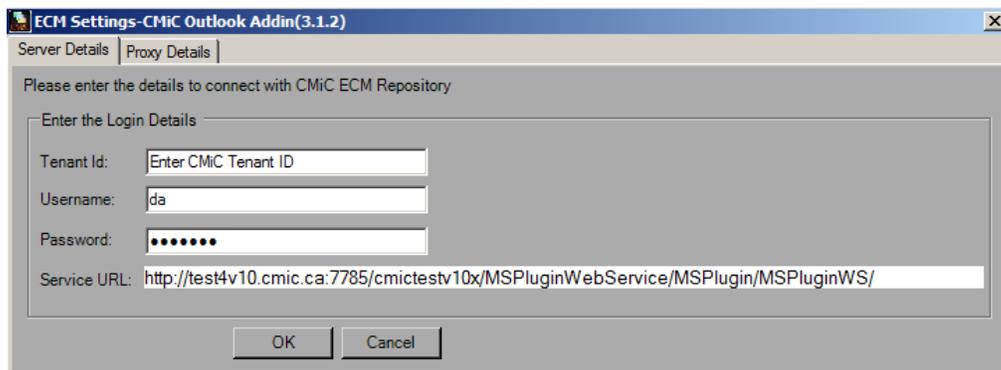
CMiC ECM in MS Outlook

ECM in Outlook



The CMiC ECM Plug-In is located in the ADD-INS section of the menu.

Clicking on **CMiC ECM Settings**, framed above, brings up the following popup:

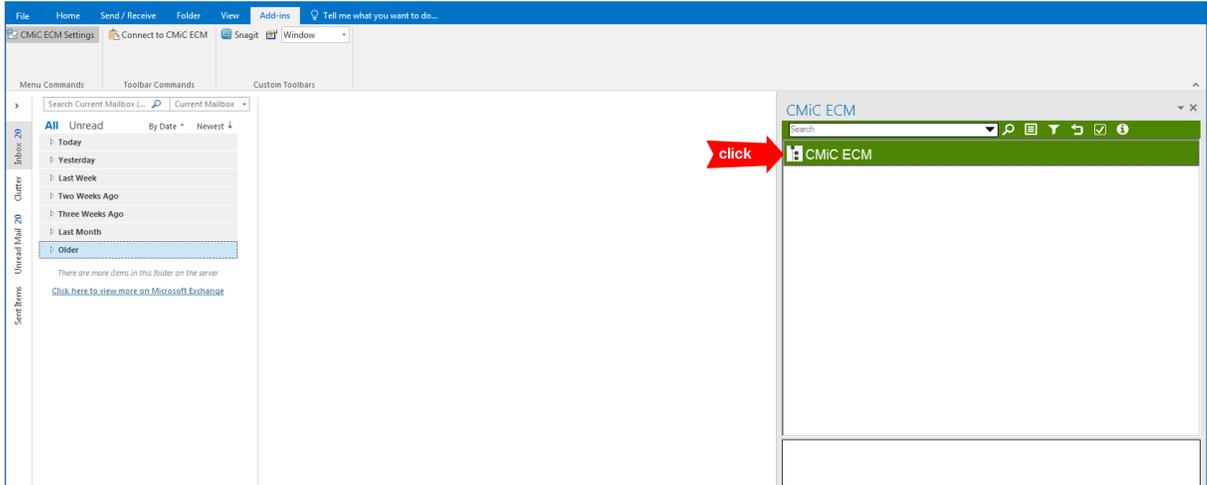


Enter the Single Sign-On (SSO) user-ID, password and URL for the CMiC environment that is applicable.

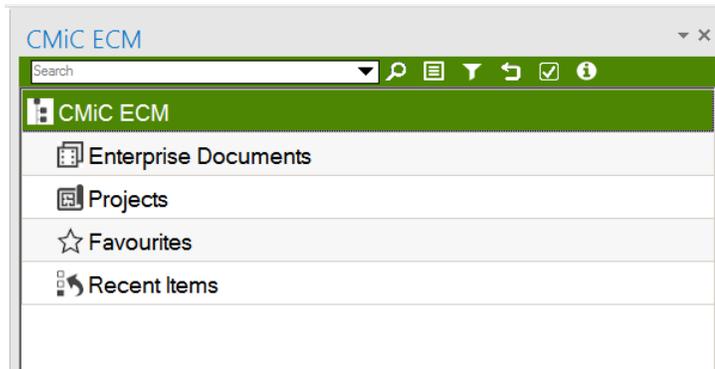
Click **[OK]**. The user’s security profile for the environment will take effect.

These settings will be retained every time the user signs into MS Outlook, until they are changed for another user.

Clicking on the **[Connect to CMiC ECM]** button will display the CMiC ECM section in Outlook:



Click the **CMiC ECM** root node, pointed to by the red arrow in the above screenshot, to expand the tree, revealing its 4 sub-nodes:



CMiC ECM Node	Description
Enterprise Documents	Provides access to the ECM documents in Image Manager.
Projects	Displays the Treeview with PM menu items.
Favourites	provides the quick access to the selected projects
Recent Items	stores the documents accessed recently

Expanding the nodes will display the folders and items under them. The displayed information is dependent on the user’s Imaging and Project Management security.

Plug-In Interface Features

1. Control Panel



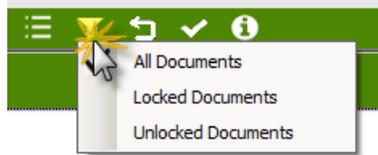
Performs the text search across the ECM content.



The Attachment Detail / Detail View buttons toggle the view in the **Details** pane showing the details information/attachment information for selected PM item.



Filters the documents to be displayed. Available options are:



Scrolls to the current project node if it is not visible.



Show/ Hide option in the Treeview to select the Project, PM objects and Document types nodes to be visible for the user.



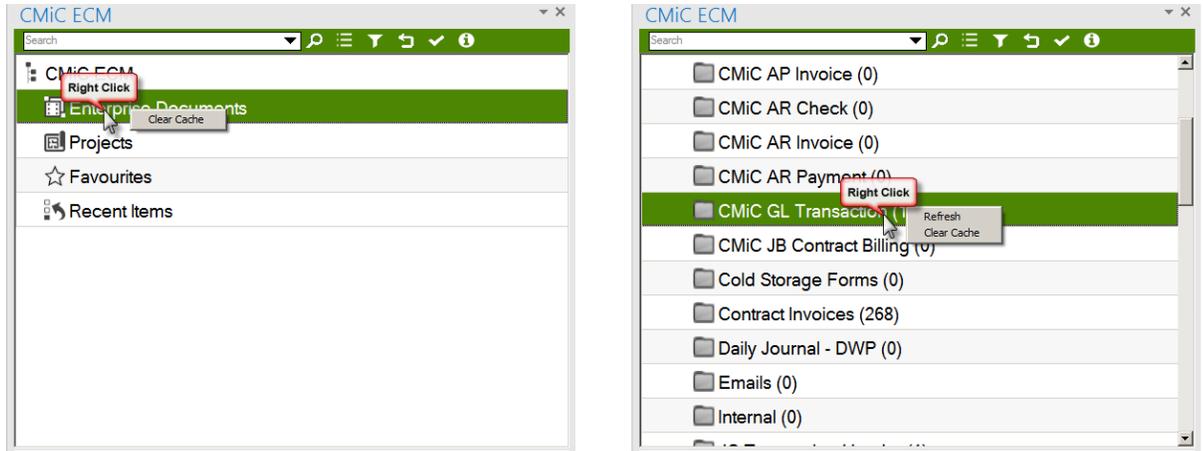
Displays the versions of installed ECM plugin and Web service:



2. Context Menus

For each of the CMiC ECM nodes, there is a context menu that can be accessed via a mouse right-click.

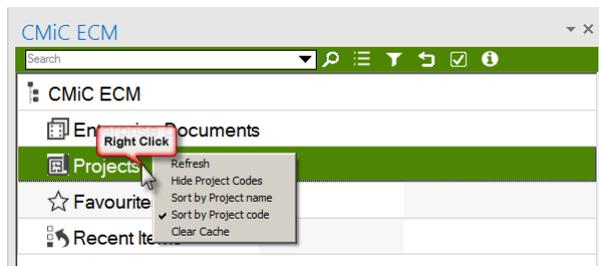
Enterprise Documents – ECM Node



The **Enterprise Documents** have two options available:

1. **Clear Cache:** clear the local computer's cache.
2. **Refresh:** update the document list of this type from the server. This option is available for the document folders only.

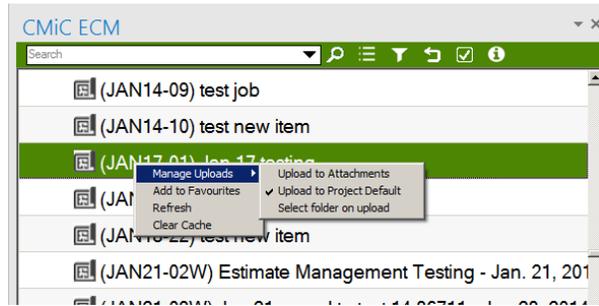
Projects – ECM Node



Available options are:

1. **Refresh:** updates the Projects tree from the server.
2. **Hide Project Code / Show Project Code:** hides or displays the Project code.
3. **Sort by Project name / Sort by Project code:** sorting options for the list of project.
4. **Clear Cache:** clears the cache on the local computer.

Project – Project Context Menu:



1. Manage Uploads

- **Upload to Attachments:** file will be uploaded to the Attachment document folder.
- **Upload to Project Default:** file will be uploaded to the default folder set in the Project System Options screen.
- **Select folder on upload:** a pop-up will open allowing you to select the document folder.

2. Add to Favourites

This option is used to add a selected project to the **Favourites** node for quick access.

The  icon appears next to the project added to 'Favourites';

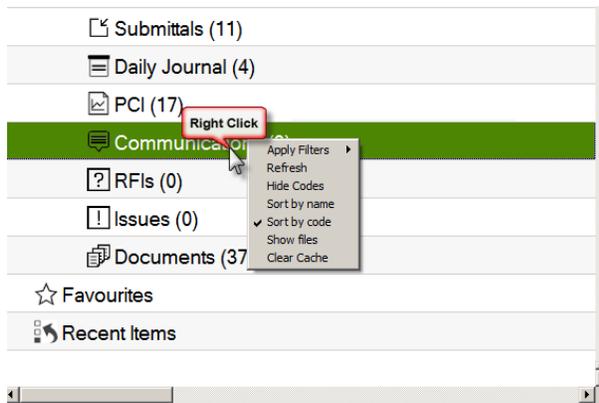
3. Refresh

Updates the displayed items.

4. Clear Cache

Clears the cache on the local computer.

Project Items Context Menu



Available options are:

1. Apply Filters

The option is used to apply filters to the selected type of the PM items.

- **Mine:** shows the PM items that have user names in the **To** or **CC** fields.
- **Not Submitted:** only PM items which are created but not submitted are displayed;

- **Open Items:** shows the PM items with status other than 'Closed'.

2. Refresh

Updates the displayed items.

3. Hide Code / Show Codes

Hide or display the PM item IDs.

4. Sort by name & Sort by code

Flags to control the sorting order of the PM items.

5. Show files

Shows the list of PM items in the lower pane of the ECM section.

6. Clear Cache

Clears the cache on the local computer

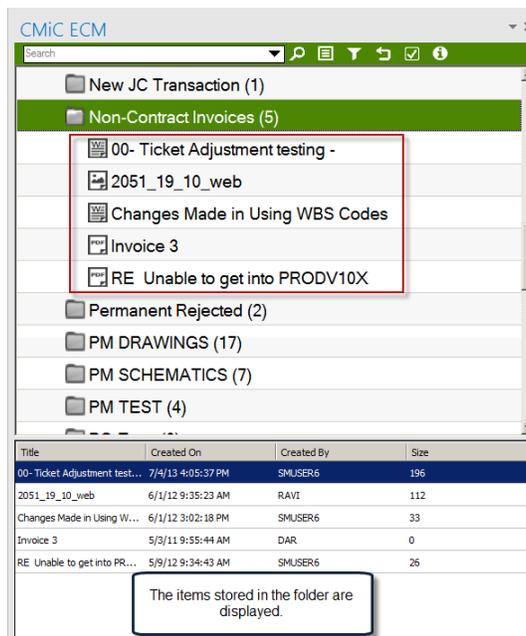
NOTE: The context menu for PCI and Daily Journal does not have **Apply Filters** and **Show Files** options. The **Documents** context menu has the same options as that of **Enterprise Documents: Clear Cache** and **Refresh**.

3. Detail Pane

The **Details** pane is located at the bottom of the ECM section and it shows information about a highlighted item.

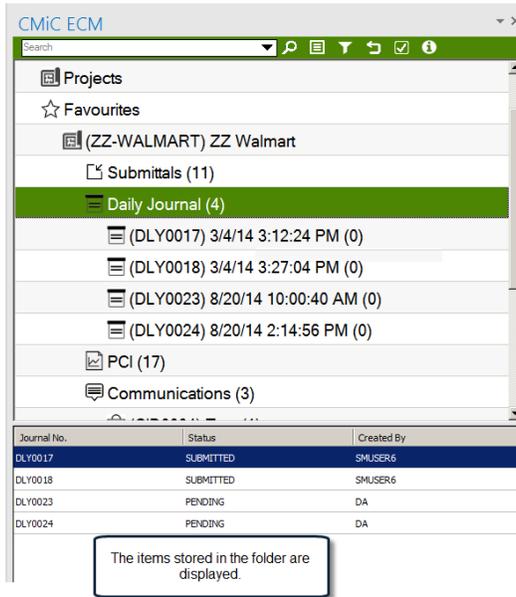
Enterprise Documents

When the document type node is highlighted, the files stored in this folder are displayed in the **Details** pane. Left double-clicking the file will open it in the viewer:

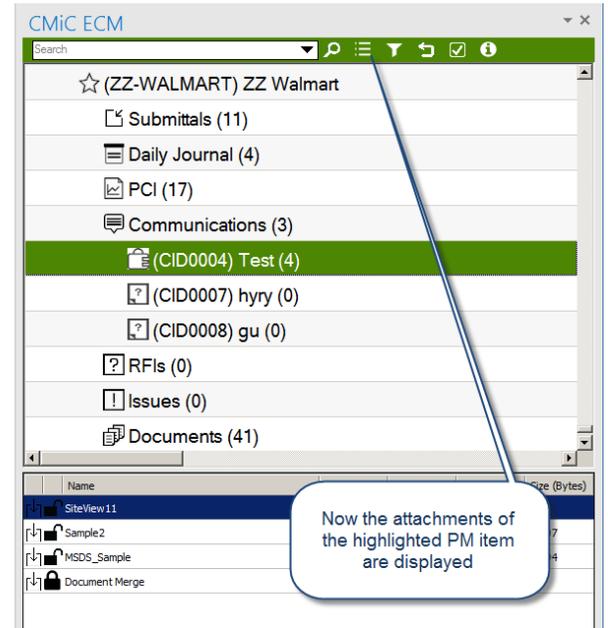
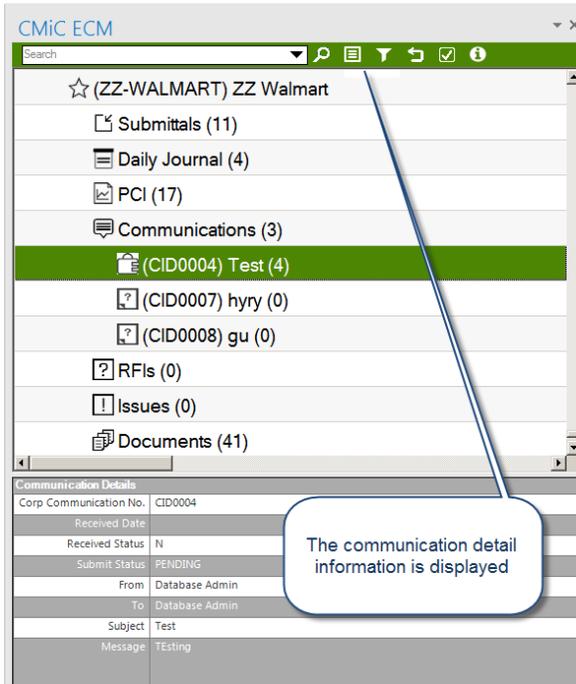


Projects

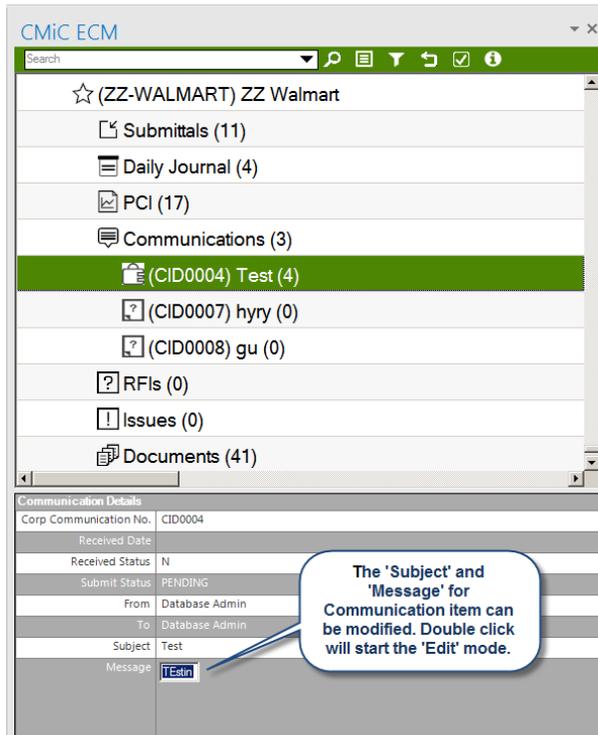
When the PM items folder is highlighted the items in this folder are displayed:



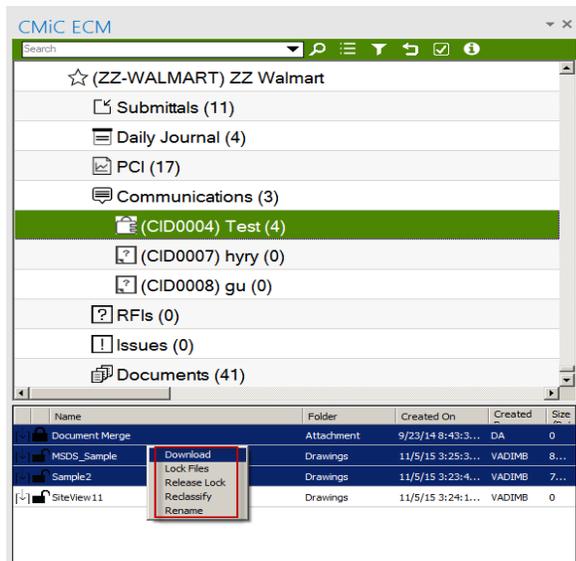
When the PM item is highlighted, the displayed information depends on the state of the Attachment Detail / Detail View buttons (see the item 1.B in the **Plug-In Interface Features** section):



In Details mode, the information in some fields can be modified. Double clicking fields starts the Edit mode:



In the 'Attachment Detail' mode the following options are available (upon right click on selection):

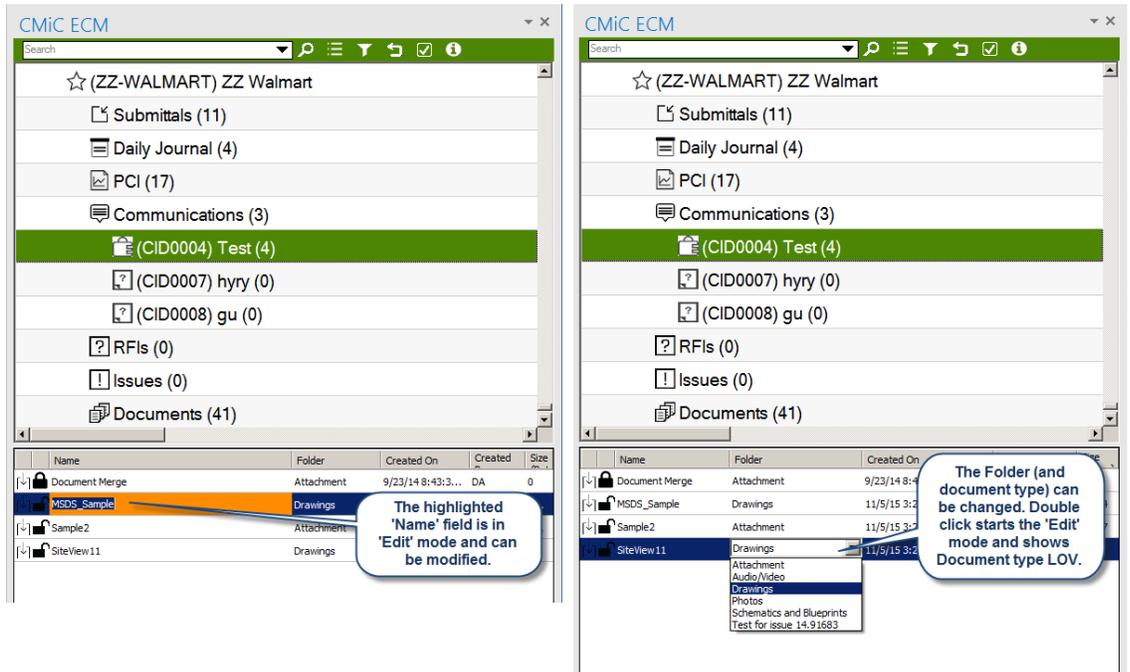


For multiple selection:

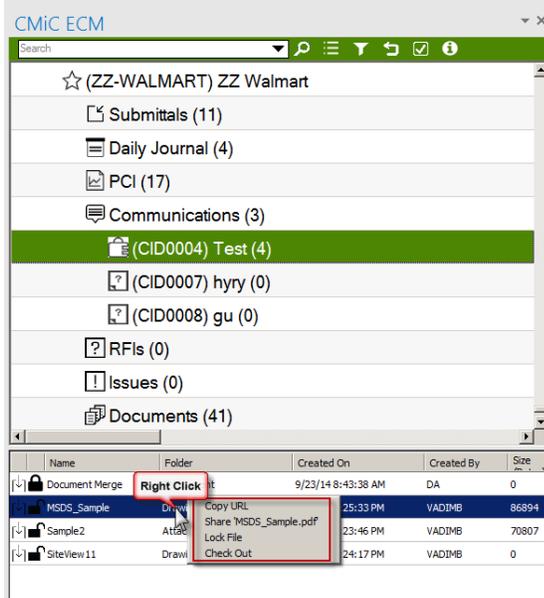
- Folder (and document type) for the selected documents can be changed (**Reclassify** option).
- Title of the selected documents can be modified (**Rename** option).
- Selected documents can be downloaded from the system (**Download** option).
- Selected documents can be locked/unlocked (**Lock/Release Lock** options).

For single attachments:

- Double clicking on **Name** or **Folder** field starts Edit mode and allows users to change the document title or folder (type) of the selected document respectively:



- Right clicking starts the context menu with following options:



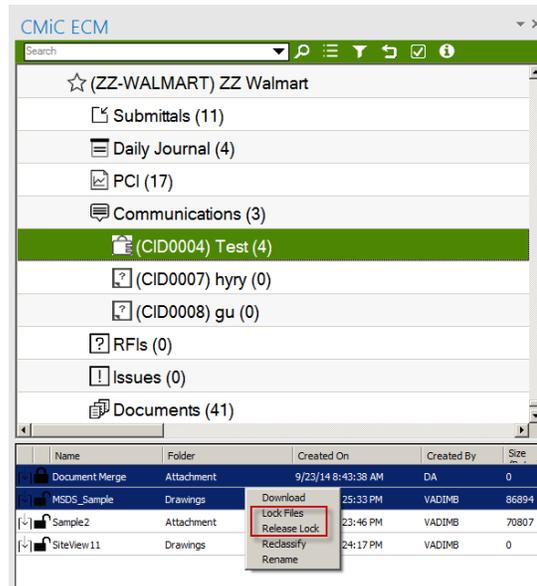
- Copy UR:** Copy URL for selected file to the buffer for later use.
- Share <file name>:** Creates the email with link for the attachment to be shared.
- Lock File / Unlock File:** Locks/unlocks the selected file.
- Check In / Check Out:** Starts the dialog box to.

I) Select the file for uploading and creating new revision of the selected document or to select place to download the selected attachment – Check In.

II) Select the place to download the selected document – Check Out.

NOTE: if some of the selected documents are locked and some of them are unlocked, the context menu shows both options. When selected, the system applies the locking/unlocking action accordingly:

- **Lock File** action will be applied to unlocked documents
- **Release Lock** action will be applied to locked ones only



Dragging & Dropping Emails & Attachments

Users can drag and drop emails or document attachments from Outlook or the desktop to the CMiC ECM section.

NOTE: The Outlook Plug-In is limited to uploading five files at the same time. If trying to upload more than five files, use the ECM Desktop.

Files

For Enterprise Documents, dragging and dropping a file to a folder adds it to that Imaging Document Type. Doing so to an existing version of the same file creates a **revision** of the file.

For Projects, dragging and dropping a file to the folder creates new PM item with an attachment. The attachment type depends on the Manage Uploads setting in the project context menu. When the same is done on the existing PM item – the new document (the type depends on the Manage Uploads setting) gets added to the item.

Emails

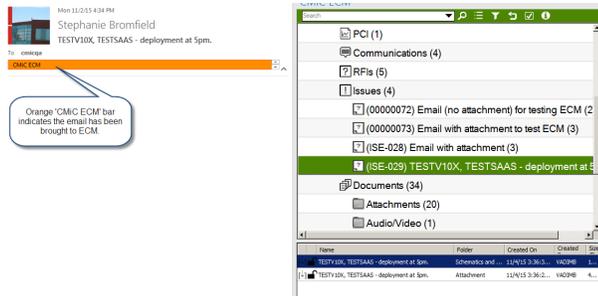
When an email is dragged and dropped to the Image Document Type node in Enterprise Documents, the new document is created in Image Manager.

If it is done to the EMAIL folder (created in Imaging for the emails), the parsing is applied to separate the author, subject, body etc. The email is stored in the system as a PDF.

If an email is dragged and dropped to the PM item node in Projects, the new PM item is created with attachments of the email body in PDF and MSG formats. Email attachments (if any) will be added as well. The attachment's type depends on the Manage Uploads setting.

If an email is uploaded to the existing PM item – new attachments will be added as the document type set in the Manage Uploads setting.

In an email, the orange CMiC ECM indicator, shown below, indicates that the email has been brought into the ECM system.



The emails with this orange bar can be sorted on Category to get them all grouped together.

Double-click on the PDF in ECM and the interface to CMiC Enterprise (Image Manager) will be displayed after logging in.

NOTE: If a WORD document is dragged and dropped on one of these document types, its changes can later be managed through the WORD Plug-in, described further below.

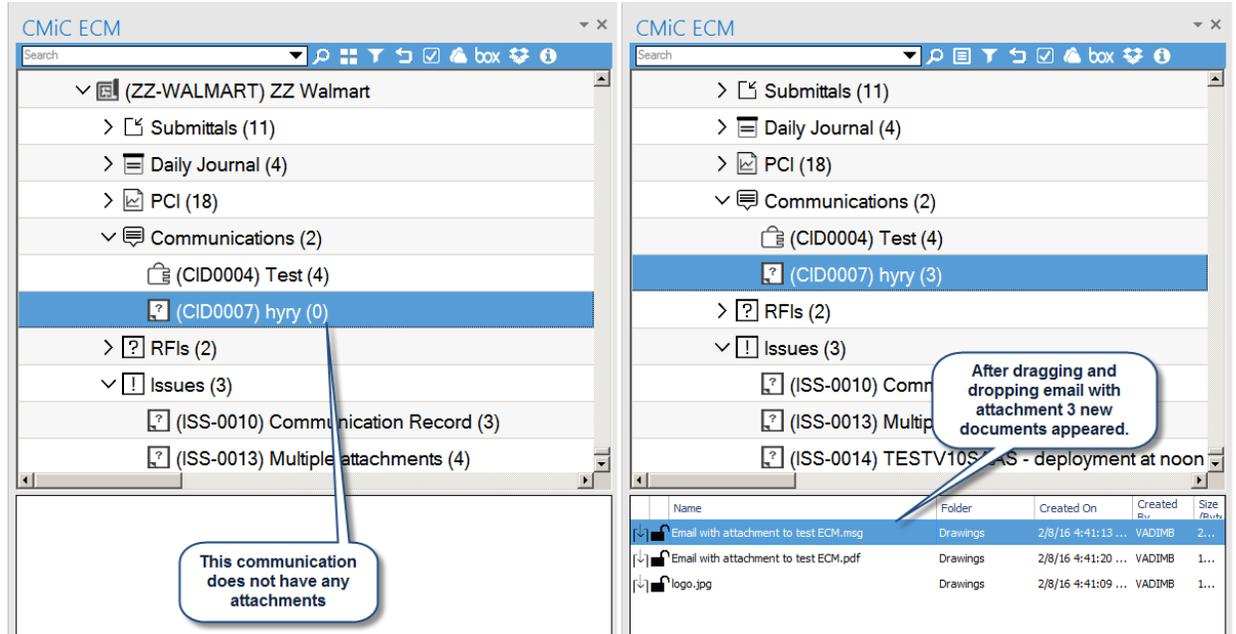
Project Management Integration

Communications, Submittals, RFIs, Issues and Documents are currently the only PM objects that are integrated into ECM.

Un-submitted RFIs, Issues and Communications can be created through the drag + drop actions. Any attachments on the email will become attachments on the created records.

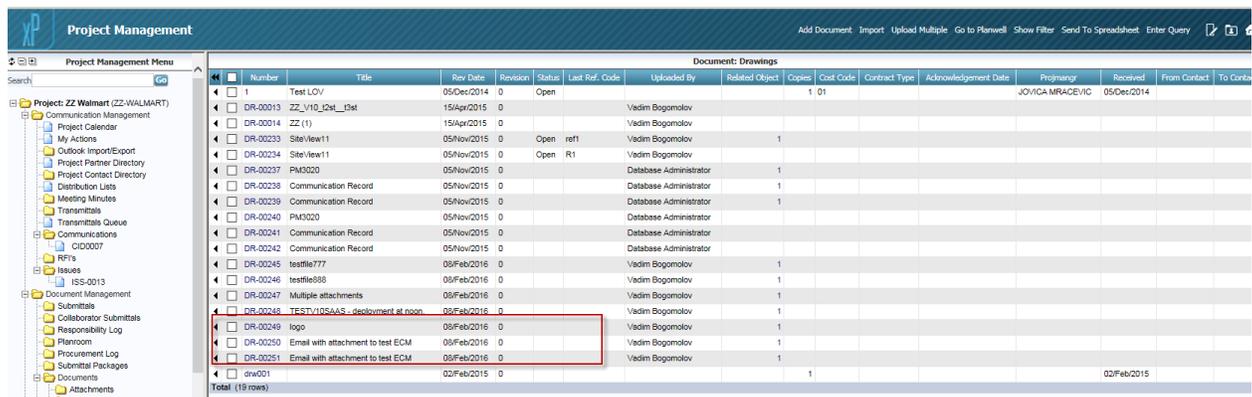
Communications

Dragging and dropping an email or file on the Communications folder in CMiC ECM will cause an un-submitted communication record to be created with attachments of the document type based on settings in Manage Uploads.



Double-clicking the document under the Communications folder in the top pane will open the PM JSP interface for the user's single sign-on to CMiC, and will then show the Communication record.

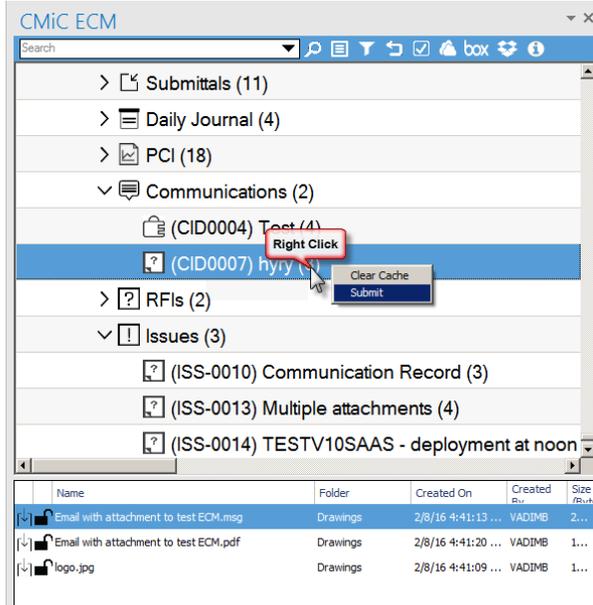
Document records are created in the Document Management – Attachments folder of the same project:



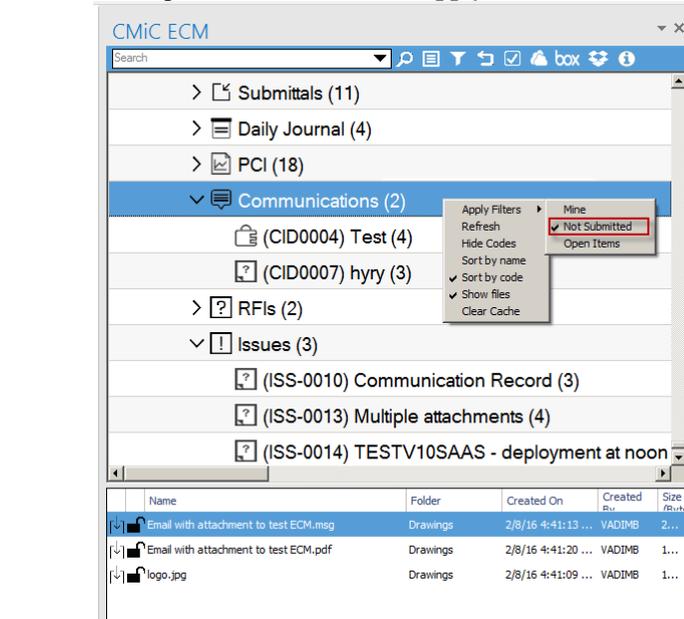
Double-clicking the attachment in the bottom pane will open the attachment in the program it was created in (Excel, Word, and Adobe etc.).

The **Subject** and **Message** fields can be modified in the lower pane of the ECM section when 'Details' mode is on (please refer to the section 3.B of the ECM plug-in interface features).

Created communication can be submitted from the context menu (right click on the item):



NOTE: This option is available when **Apply Filter -> Not Submitted** is used:

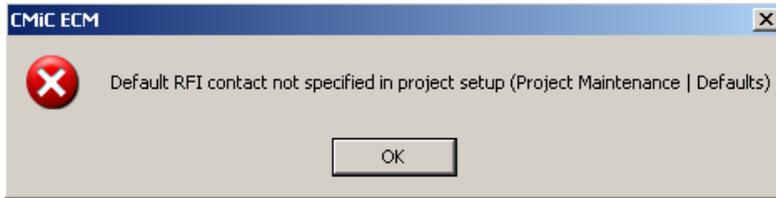


Issues

The Issue object behaves similarly to the Communication object. Fields available for modifications are: **Subject** and **Description**.

RFIs

The default RFI Contact needs to be set for the projects used in ECM, otherwise an error message will be displayed:



The RFI object functions in much the same way that the Communications and Issues objects do, as previously described.

Fields available for modifications are **Subject** and **Question**.

Submittals

Submittals are not created from the drag + drop actions, and must be created in the PM module. Email messages dragged and dropped onto a submittal will be created as attachments for the submittal record. The only field available for modification is **Name**.

PCIs & Daily Journals

As with Submittals, PCIs and Daily Journals are not created from drag + drop actions, and must be created in PM. Email messages, as well as files, dragged and dropped onto a PCI or Daily Journal will be created as attachments. There are no fields available for modification for these items.

Documents

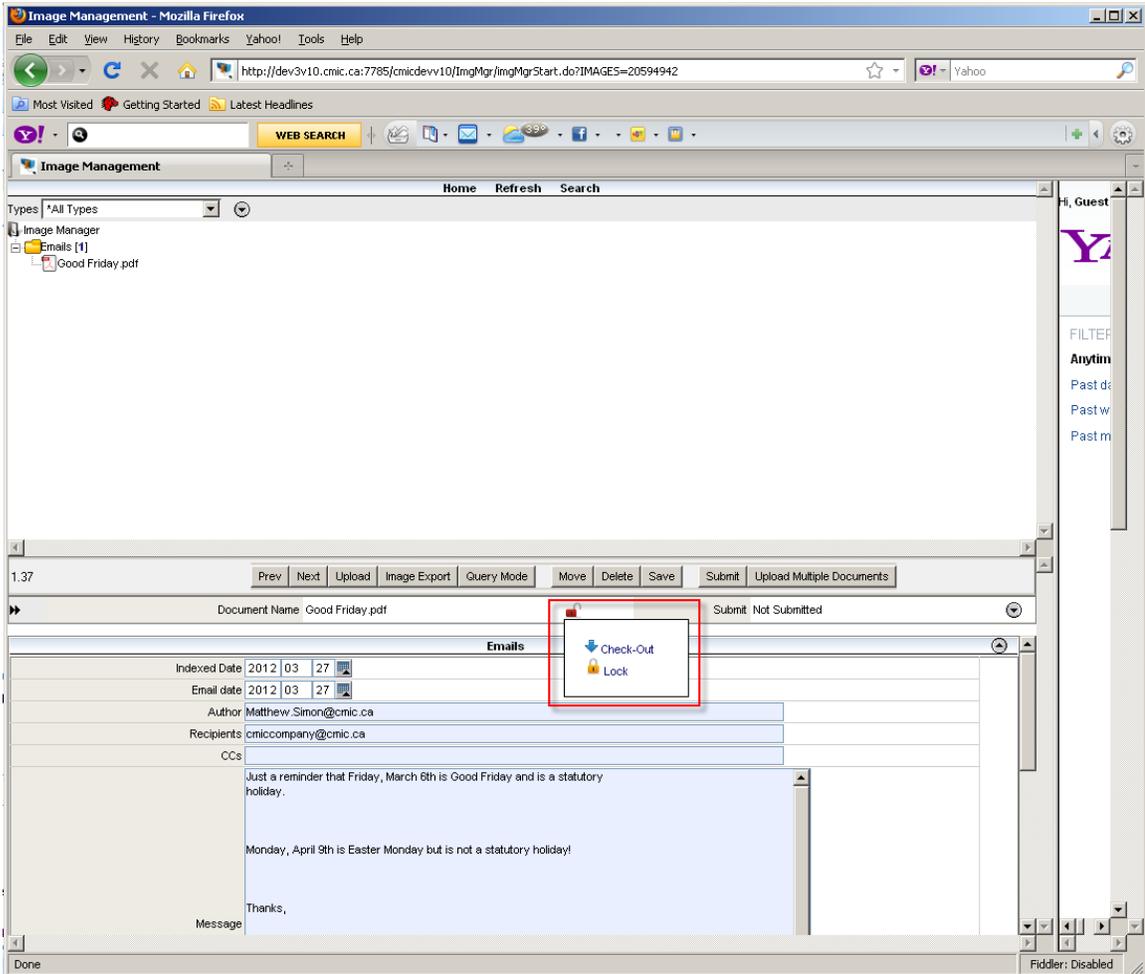
Email messages can be dragged and dropped onto Document records as well. When this happens, both an MSG file (representing the original email) and a PDF representation of the email are created as separate document records under the document type to which the email was dragged and dropped. Thereafter, the documents can be used in other PM objects (PCI, Subcontracts, Notices, etc.) as attachments.

Locking & Checking Out Files

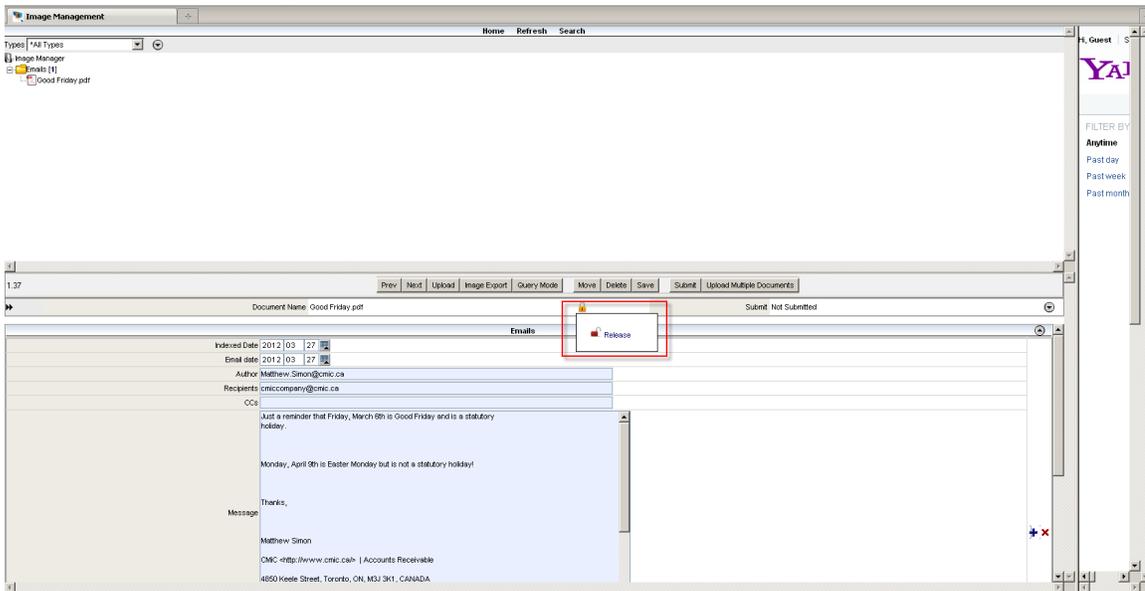
Locking

Locking involves the disabling of access and update rights to files by other users. Files can be locked to prevent them from being overwritten by an uploaded revision. Also, if multiple users are expected to update the same file, the file can be temporarily locked by one user while a revision is being applied, to prevent use by other users in the interim.

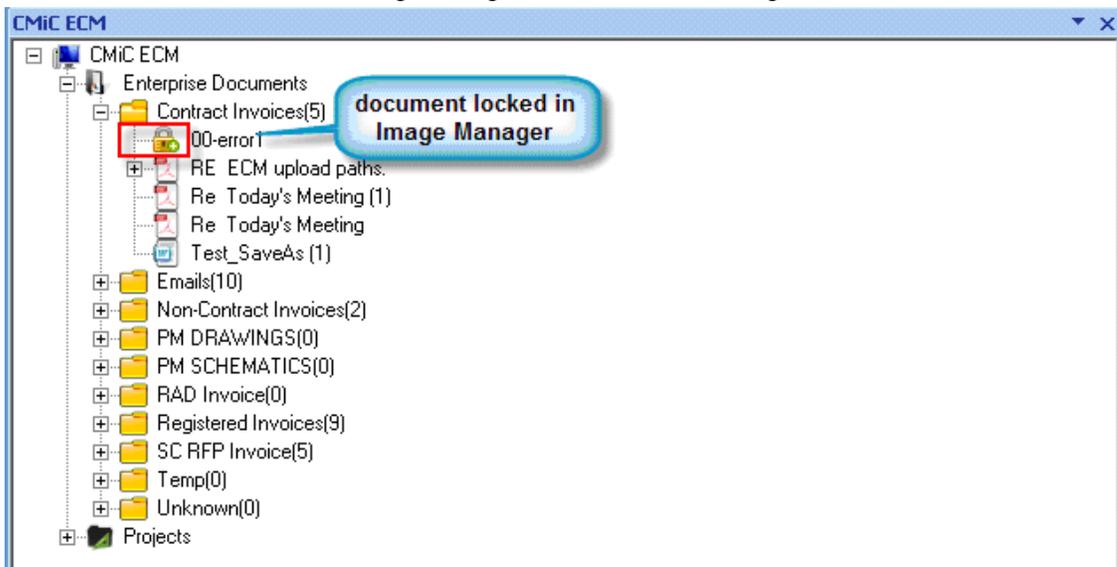
Locking is available when the ECM flags for IMG or PM are set to the 'On' state. That is when the user will see the Padlock icon .



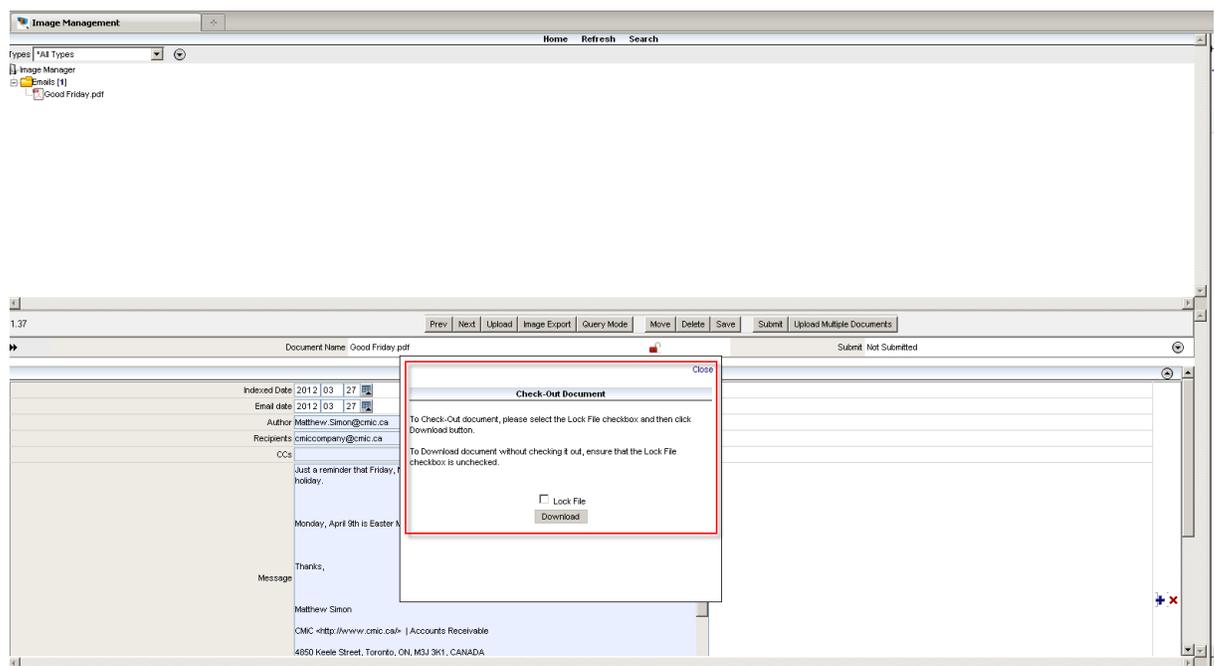
The red lock (highlighted in the screen print above) allows the user to lock or check-out a file.



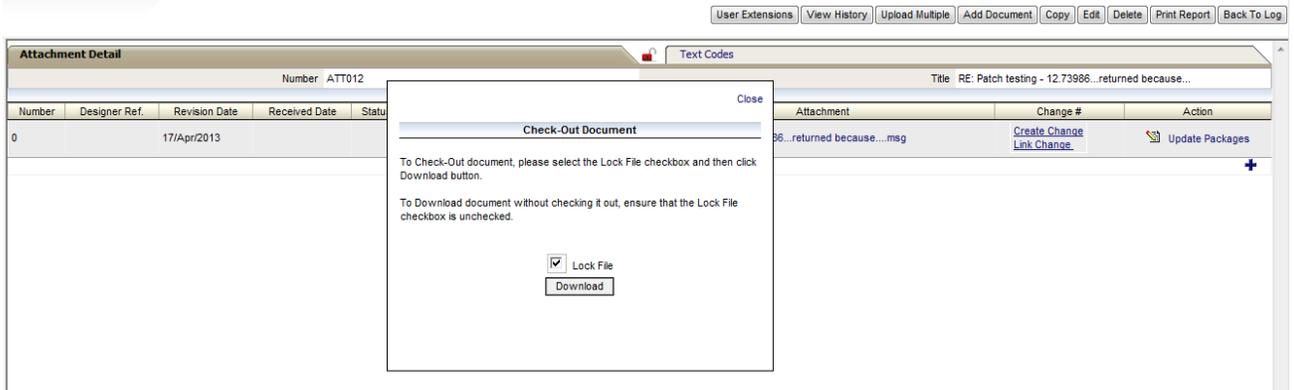
When the document is locked in Image Manager, the icon in ECM changes to a lock as well:



Checking Out



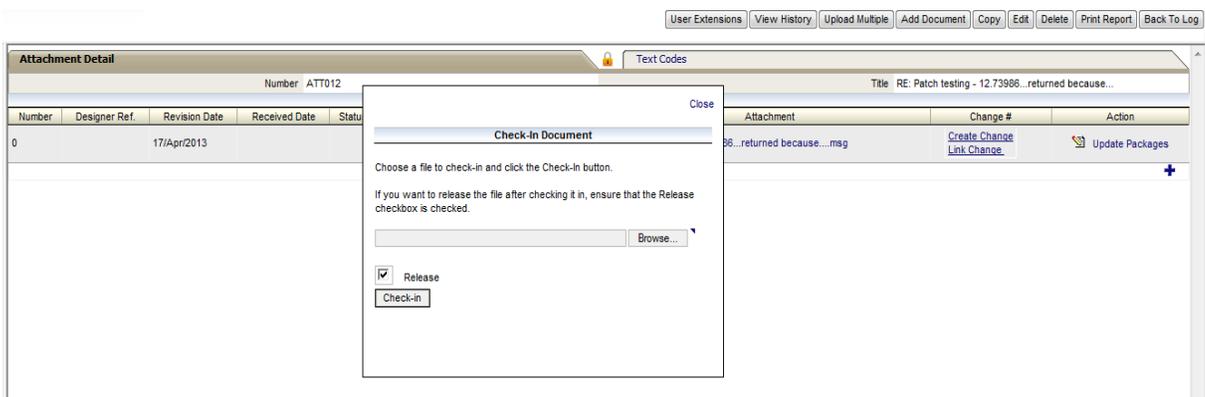
In Image Manager, the Check-Out feature allows the user to download an attachment. The same applies to Project Management Documents:



After the Check-Out action, the icon changes to Check-In:

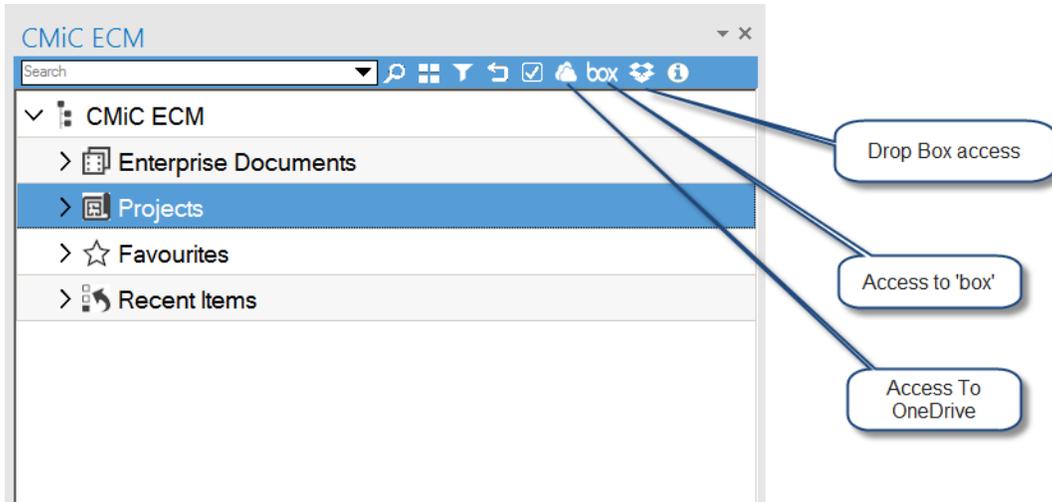


Checking In

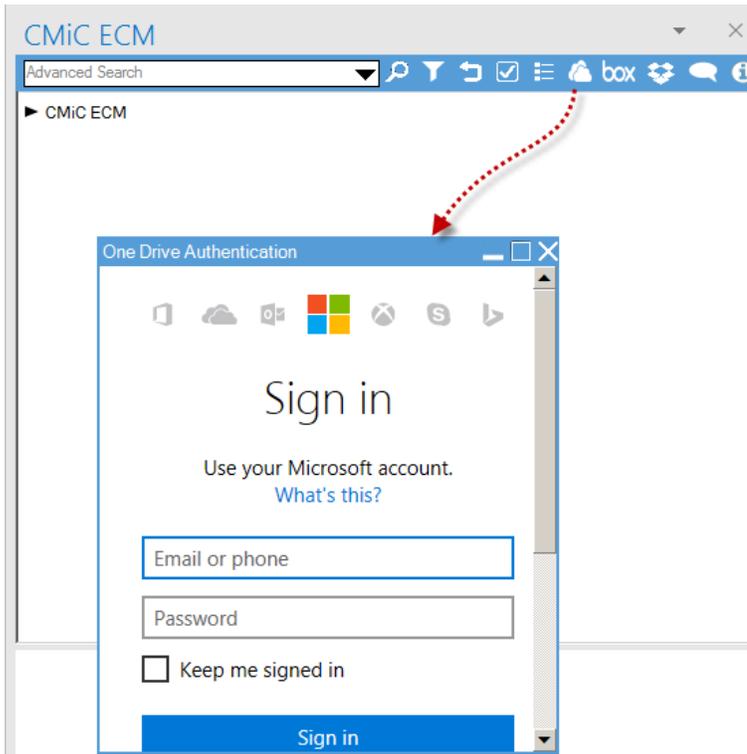


Using Cloud Storage (OneDrive, Drop Box, box)

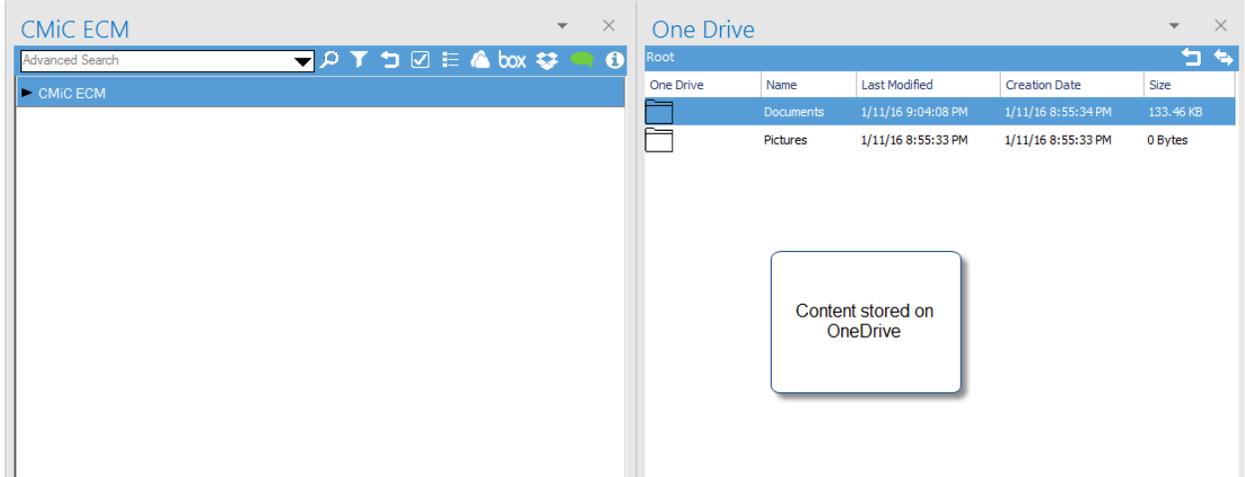
In version 4, new functionality has been implemented for integration with the following cloud file hosting services: OneDrive, Drop Box and Box.



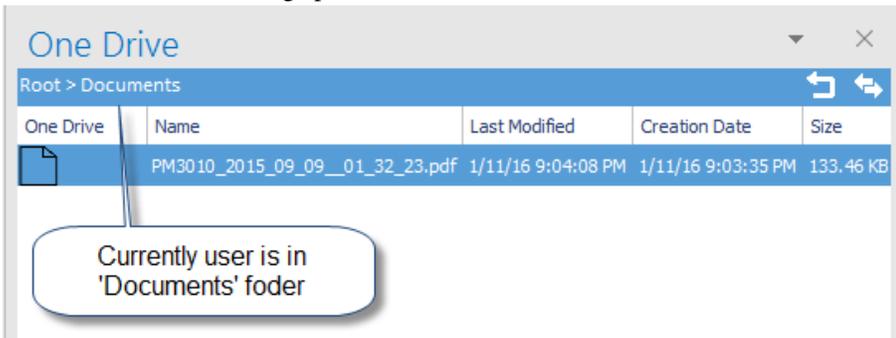
Upon clicking these buttons, the login window appears to enter credentials (sample of Sing in screen shown below):



When logged in, the user has access to the files stored in the cloud. They appear on the right pane of the Outlook ECM section:



The toolbar on cloud storage pane shows the current location:



And it has two controls:



- navigates one level up.

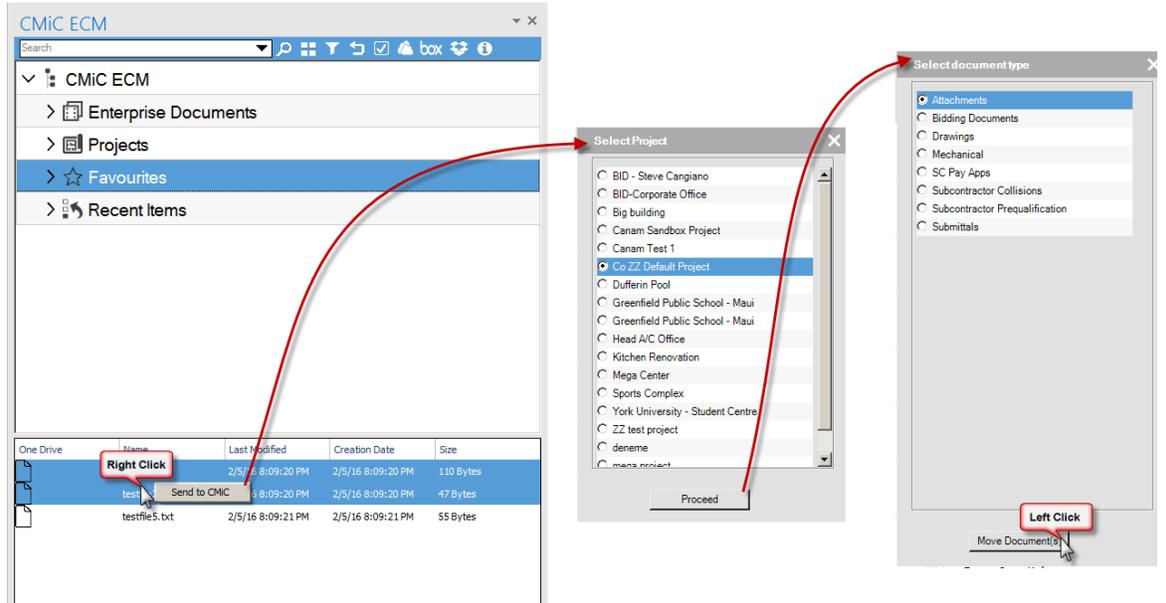


- navigates between cloud storage drives (if connected).

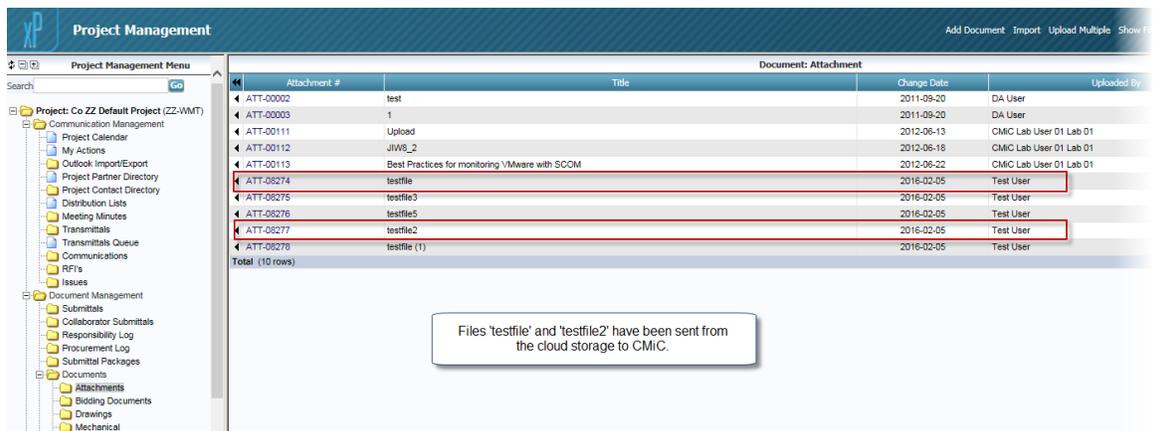
From cloud storage, the files can be sent to CMiC:

- Select files (multiple selection can be used as well)
- Right click and then click the **[Send to CMiC]** button
- Choose the destination project and click **[Proceed]**

- Select the type of the documents for the files and click **[Move Documents]**, as shown at the bottom of the last screenshot:



- Selected files will be sent to CMiC:



Settings Menu

Server – Tab

SETTINGS MENU

Server

Notifications

Proxy

Sync

RFI

Email

Enter Login Details

Tenant ID: Enter CMiC Tenant ID

Username: testuser

Password: [masked] Use Same Username/Password for all servers

Server 1: http://v10xsandboxwls.cmic360.com/cmiproduct/MSPuginWebService/MSPugin/MSPugin

Server 2: http://test4v10.cmic.ca:7785/cmictestv10x/MSPuginWebService/MSPugin/MSPuginWS/

Server 3: [empty]

Save

User can setup the service URL for different servers. By setting the checkbox (this is single selection checkbox) on the right side of the screen the user chooses the server to be connected to.

Notifications – Tab

SETTINGS MENU

Server

Notifications

Proxy

Sync

RFI

Email

Pull Notifications

Frequency(in min): 5

Save

This tab is used to set the frequency of checks for new notifications.

Proxy – Tab

The screenshot shows a settings window titled "SETTINGS MENU" with a close button (X) in the top right corner. On the left is a vertical sidebar with menu items: "Server", "Notifications", "Proxy" (highlighted in white), "Sync", "RFI", and "Email". The main content area is titled "Proxy Server Settings" and contains the following elements:

- Server IP:
- Port:
- Username:
- Password:
- Enable Proxy
- Save:

This tab is used to store the proxy server information (if required).

To make fields editable, check the **Enable Proxy** checkbox.

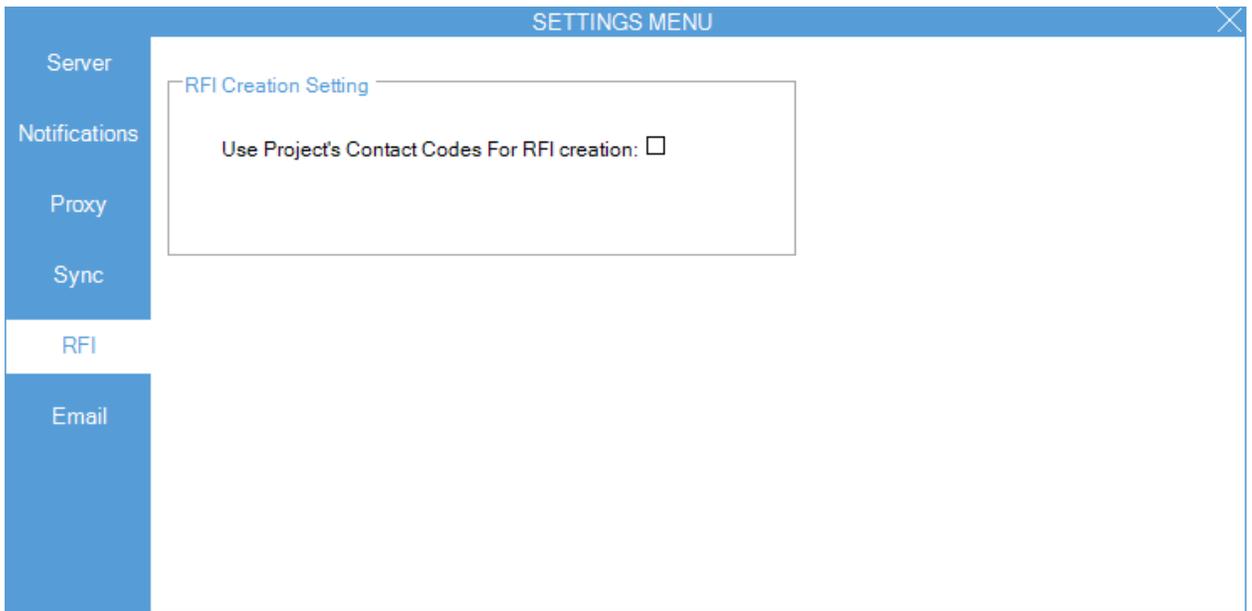
Sync – Tab

The screenshot shows a settings window titled "SETTINGS MENU" with a close button (X) in the top right corner. On the left is a vertical sidebar with menu items: "Server", "Notifications", "Proxy", "Sync" (highlighted in white), "RFI", and "Email". The main content area is titled "Revision Synchronization" and contains the following element:

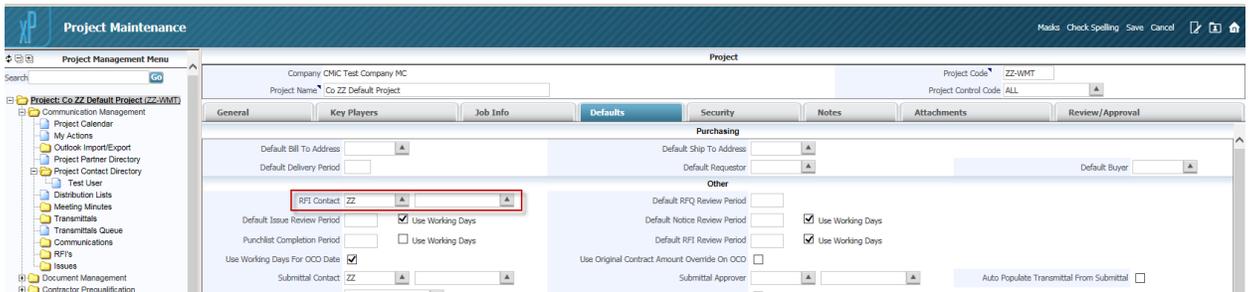
- Enable server auto renaming:

When checked the server uses masks setup in the CMiC to rename uploaded documents.

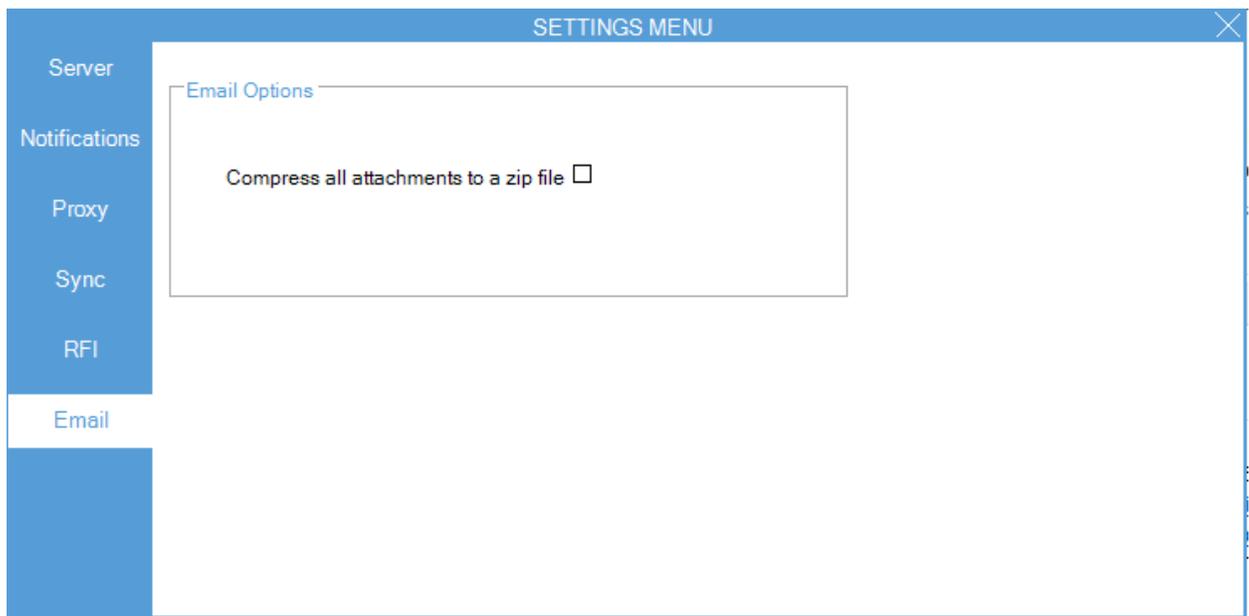
RFI – Tab



When checked, the RFI contact set in the Project defaults will be used for new RFIs:



Email – Tab

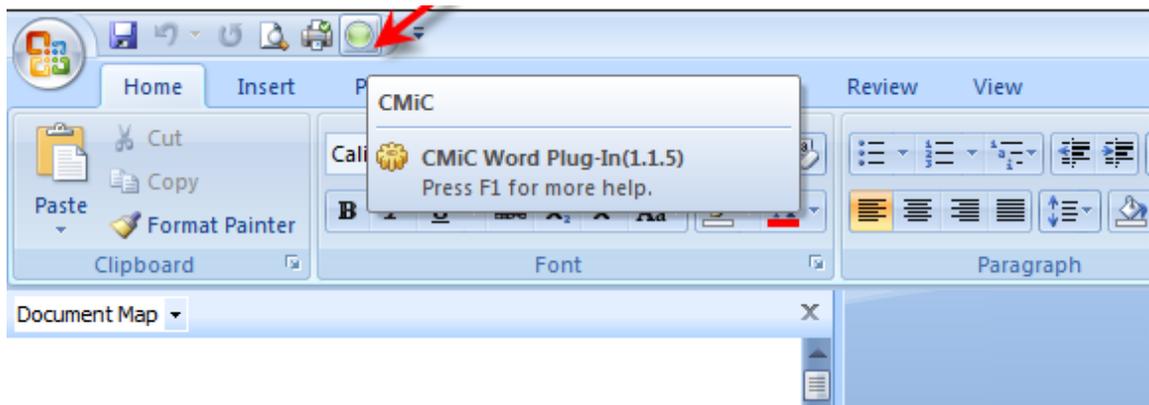


When checked, the selected files will be archived and attached to emails as ZIP files (see the *Detail Pane* section).

CMiC ECM in MS WORD

Overview – ECM in Word

The WORD Plug-in is meant to be used with versions **above** Microsoft Word 2003.

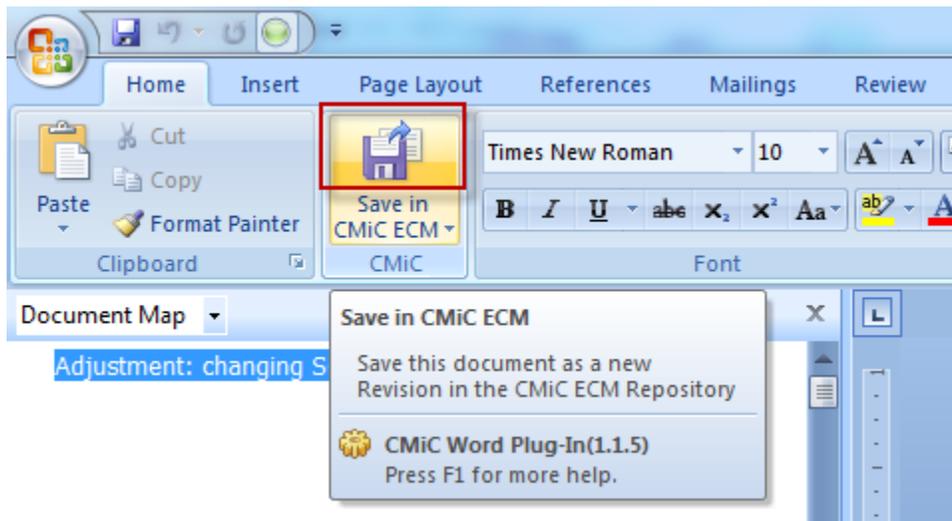


It provides an interface between CMiC objects (namely from Project Management JSP) and Microsoft Word, allowing the creation, modification and storage of documents within CMiC to produce multiple revisions and at the same time retaining the original document.

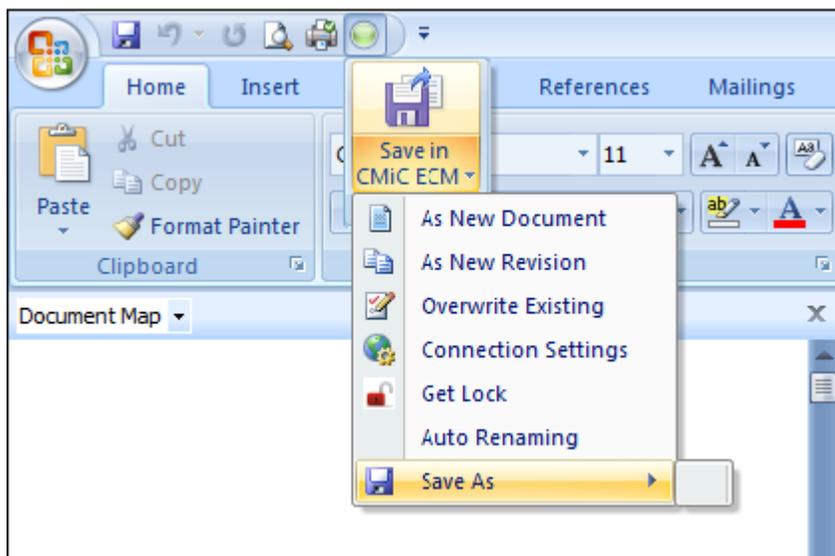
Activating the WORD Plug-In

Open WORD. The icon  will be displayed in the Toolbar. The Tooltip will show that it is the CMiC Word Plug-in and the plug-in version.

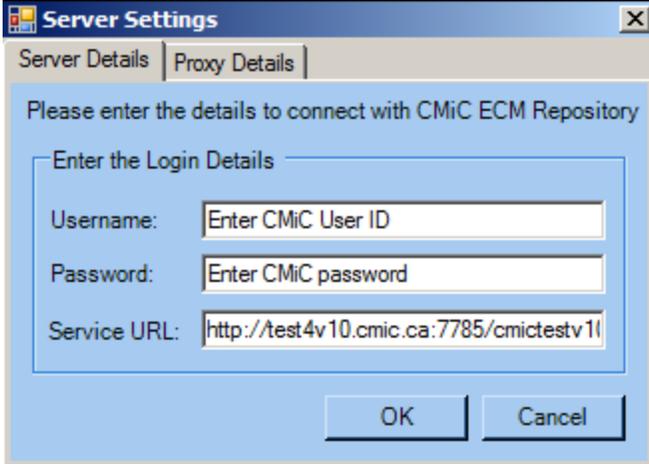
Click this icon to show the next icon which is separated into two parts - the diskette part allows the user to save the document without any additional saving options, and also displays the WORD plug-in version that is in use.



The second part, **Save in CMiC ECM**, has a drop-down arrow. Click on it to expand to the additional menu options beneath:



Click [**Connection Settings**] to set the Username, Password and Service URL for the environment (TEST/PROD etc.) that you will be working in:



Click [**OK**].

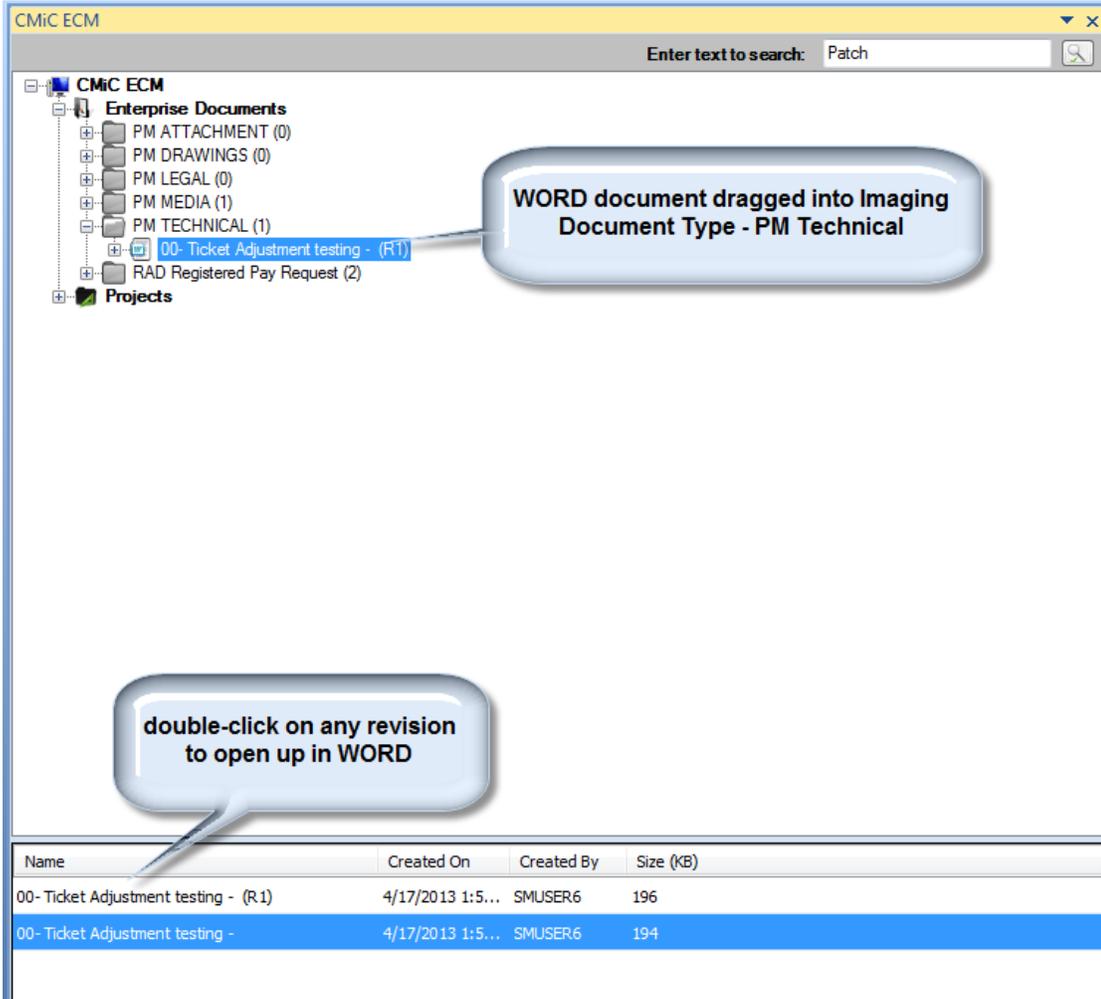
If the connection parameters are not correct, the system will inform the user later when the user tries to make updates during saving actions.

Activating the Document Types

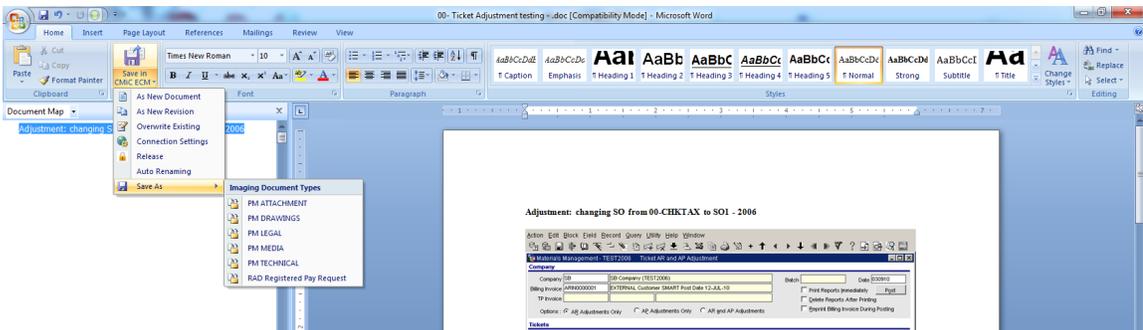
When Microsoft Word is opened after installing the plug-in, the Document Types are not initially shown (see 'Save As'). To get the Document Types active, open or print a PM object (Communications, RFI, PCI, Subcontract etc.) using an associated CMiC word template (created using the Microsoft Integration Package feature) in the CMiC Project Management module.

After printing, a record is created in the Attachments tab and Attachments folder (Document Management) by default. This is a copy of the original printed document.

If a WORD document was previously dragged into the Imaging Document Types folders of the CMiC Outlook plug-in, when the user double clicks on the document in the bottom pane of Outlook, it will open up in WORD, and the document types for Imaging will display:



The Imaging Document Types will show:



Opening Existing Documents

When opening an existing document, even more options are available. The ‘Save As’ option will show a sub-menu of Document Types if the current document was previously modified and saved with active Document Types.

Saving ‘As New Document or Revision’

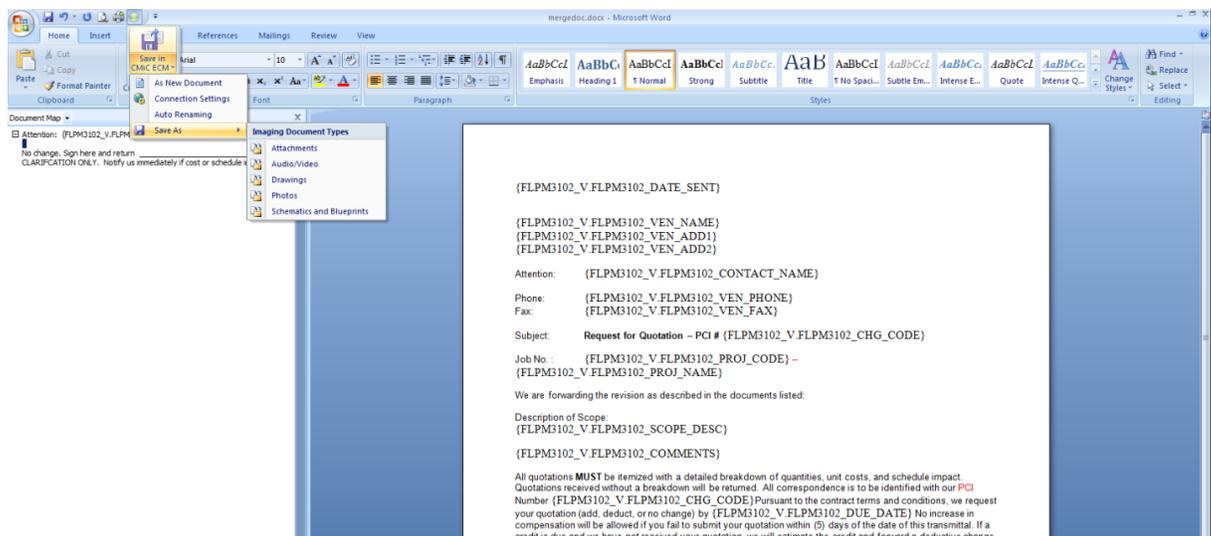
After making changes to an original document the document can be:

- a) saved As New Document
- b) saved As New Revision

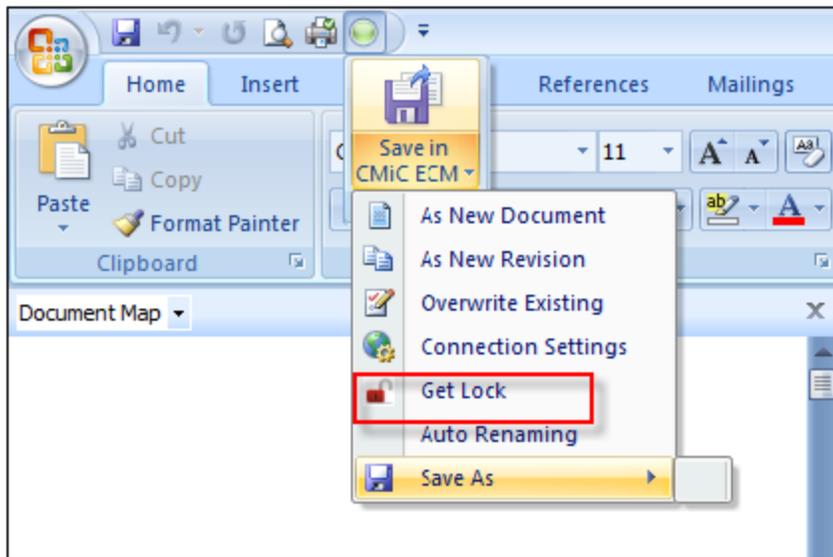
Both the original document and the revision are saved to the PM object.

Using the ‘Save As’ Option

‘Save As’ allows the user to select the Document Type to which he wants the document saved.

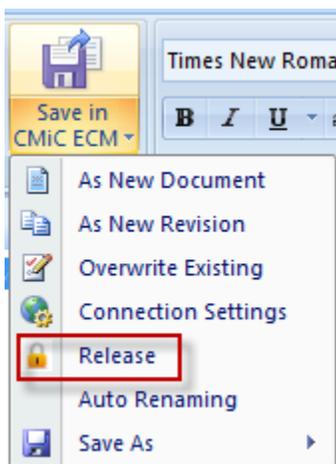


Document Locking



Locking allows the user to secure the document from unauthorized personnel.

Locking prevents multiple users with authorization from modifying the same document at the same time.



Once a lock is affected by one user, other users can only display or download the document.

When the document is saved the lock is automatically released.

Integration with Imaging

Word documents opened from Imaging have the similar integration as Project Management. As already said above, any WORD file that was dragged to an Imaging Document Type can be modified using the WORD plug-in to create revisions and to lock them if necessary. The user can place a lock on the file while it is being modified. Revisions can be created.

CMiC Search & Indexer

Overview – CMiC Search & Indexer

CMiC Search and CMiC Indexer are components of the Electronic Content Management module.

CMiC Indexer creates and updates the index files (scheduled or manually) for the selected types of documents on its **Document Types And Logs** tab. CMiC Search then uses the index files to perform searches.

CMiC Indexer

CMiC Indexer is used to rebuild indexes when changes have been made to the database's contents, and it is used to improve search performance by selecting which Enterprise, Project and Log document types get searched against. The less documents types there are to index and search against, the faster indexing jobs and searches are performed.

Launch the indexer by typing the following URL in a browser, or by manually adding it to your Treeview. For instructions on how to add a link to a Treeview, please refer to the *V10xTOOLS ADF - UI Treeview Builder.doc* reference guide.

<http://<SERVER>:<PORT>/cmic<ENVIRONMENT>/CmicIndexer/indexer.do>

The Single Sign-On screen is displayed to log in to the system. Enter your login credentials.

The indexer's **Controls** tab is the main tab from which the indexer is executed and monitored, and the **Document Types And Logs** tab is used to select which document types get indexed and searched against. Before running the indexer, ensure the required documents types are selected via the **Document Types And Logs** tab.

Controls – Tab

CMiC INDEXER

Controls **Document Types And Logs**

INDEXER CONTROLS

Create Scheduler and Start Indexer Stand by Stop Scheduler and Indexer Recreate Indexes

JOB CONTROLS

Schedule Jobs Pause Resume

CHANGE INTERVAL

* Select a job from list to reset its interval.
Logs Indexing (In Minutes) Reset Interval

CURRENT JOBS INFORMATION

Current Time: Wed Jun 14 09:26:22 EDT 2017
Scheduler State: Running

Group	Job	Interval(in Minutes)	Previous Run Time	Next Run Time	Job Running Status
CMiC	DOCS	30	Wed Jun 14 09:17:44 EDT 2017	Wed Jun 14 09:47:44 EDT 2017	NO
CMiC	LOGS	30	Wed Jun 14 09:17:44 EDT 2017	Wed Jun 14 09:47:44 EDT 2017	YES (1)

Refresh Job Information

Indexer Jobs: DOCS, LOGS

Sample of CMiC Indexer's Controls tab.

Indexer Jobs & Scheduler

Indexer Jobs

Indexer Jobs are what create the index files used by the CMiC Search application to search for text within the documents and PM Logs of the types selected on the **Document Types And Logs** tab.

There are two Indexer Jobs, one for the documents in PM and Enterprise and one for PM Logs. As shown in the above screenshot, the **Current Jobs Information** section lists the two Indexer Jobs, if they are scheduled to run:

I. DOCS

Creates index file for documents of the types selected under the **Enterprise Document Types** and **Project Document Types** sections on the **Document Types And Logs** tab.

II. LOGS

Creates index file for PM Logs of the types selected under the **Project Logs** section on the **Document Types And Logs** tab.

Scheduler

When activated, the Scheduler runs the Indexer Jobs at regular intervals. The duration of the interval for each Indexer Job is specified in the **Change Interval** section.

If the Scheduler is active, the **Current Jobs Information** section shows the two Indexer Jobs (**DOCS**, **LOGS**), their intervals and their current statuses.

NOTE: Click the **Refresh Job Information** link in the **Current Jobs Information** section to ensure that current details are shown.

Setting Up Scheduler to Run Indexer Jobs – Overview

This overview is about setting up the Scheduler to run the two Indexer Jobs when no Scheduler is active. The Scheduler is inactive if the [**Create Scheduler and Start Indexer**] button is enabled and the **Current Jobs Information** section does not show the two Indexer Jobs (**DOCS**, **LOGS**) and their intervals.

Part 1: **Indexer Controls** – Section

Click the [**Create Scheduler and Start Indexer**] button to activate the Scheduler.

Part 2: **Job Controls** – Section

Click the [**Schedule Jobs**] button to add the two Indexer Jobs (**DOCS**, **LOGS**) to the Scheduler. The scheduled Indexer Jobs will appear in the **Current Jobs Information** section with details about them. By default, the two Indexer Jobs are set to run by the Scheduler every 30 minutes.

Part 3: **Change Interval** – Section

The **Change Interval** section is used to set the interval of time between the running of an Indexer Job by the Scheduler. To set an Indexer Job's interval, select the Indexer Job from the dropdown list and enter its interval (in minutes) in the corresponding field.

Part 4: **Current Jobs Information** – Section

This section displays details about the currently scheduled Indexer Jobs.

NOTE: Click the **Refresh Job Information** link in this section to ensure that current details are shown.

Indexer Controls – Section



This section is used to start the Scheduler, to stop it, or to put it in Standby mode.

[**Create Scheduler and Start Indexer**] – Button

This button is used to activate the Scheduler, in order to add the two Indexing Jobs to it by clicking the [**Schedule Jobs**] button in the **Job Controls** section. If the Scheduler is active, this button is disabled.

[Stand By] – Button

This button is used to put the Scheduler in Standby mode. If an Indexing Job is running, it will be allowed to finish. In Standby mode, the Scheduler will not run the Indexer Jobs again until the [Start] button (available when Scheduler is in Standby mode) is clicked.

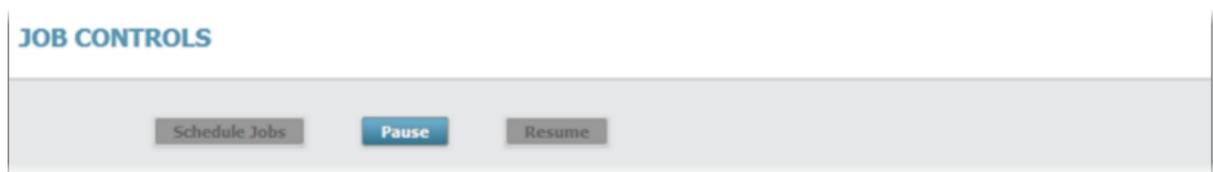
[Stop Scheduler and Indexer] – Button

This button stops the Scheduler and deletes the Indexer Jobs set up for it, reverting it back to its initial state.

[Recreate Indexes] – Button

This button deletes and recreates the index files from scratch, instead of just updating the index files based on recent changes, as it does after the index files have been initially created (Indexer Jobs run faster after initial run). This is required if any errors occur that would require the index files to be created from scratch.

Job Controls – Section



[Schedule Jobs] – Button

This button adds the two Indexer Jobs (**DOCS, LOGS**) to the Scheduler. Upon clicking, the scheduled Indexer Jobs will appear in the **Current Jobs Information** section with details about them. By default, the two Indexer Jobs are set to run by the Scheduler every 30 minutes.

This button is disabled if the Indexer Jobs have already been added to the Scheduler.

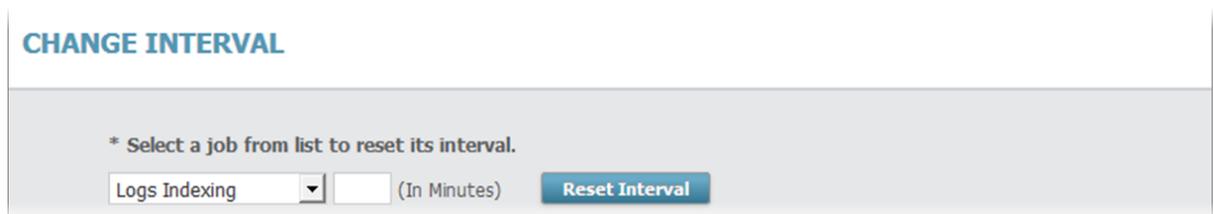
[Pause] – Button

This button pauses the currently scheduled Indexer Jobs.

[Resume] – Button

This button is enabled when the Indexer Jobs are paused, to resume them.

Changing Interval – Section



This section is used to set the interval of time between the running of an Indexer Job by the Scheduler. To set an Indexer Job's interval, select the Indexer Job from the dropdown list and enter its interval (in minutes) in the corresponding field. Click the [Reset Interval] button to commit the change.

For both Indexer Jobs, their interval is displayed by the **Interval (In Minutes)** column in the **Current Jobs Information** section (note, click the section's **Refresh Job Information** link to ensure that current details are displayed).

NOTE: The time interval cannot be less than 15 minutes.

Current Jobs Information – Section

CURRENT JOBS INFORMATION

Current Time: Fri Aug 11 11:22:28 EDT 2017
Scheduler State: **Running**

Group	Job	Interval(In Minutes)	Previous Run Time	Next Run Time	Job Running Status
CMIC	DOCS	30	Fri Aug 11 11:20:40 EDT 2017	Fri Aug 11 11:50:40 EDT 2017	NO
CMIC	LOGS	30	Fri Aug 11 11:20:40 EDT 2017	Fri Aug 11 11:50:40 EDT 2017	YES (1)

Indexer Jobs: DOCS, LOGS

[Refresh Job Information](#)

[Get Indexing Data Information](#)

If the Scheduler has had the Indexer Jobs added to it, they will be shown in the **Job** column in this section, as shown above.

If an Indexer Job is running, its corresponding **Job Running Status** field (last column) displays “**Yes (1)**”, as shown above. When an Indexer Job has finished, the **Job Running Status** field displays “**NO**”.

The **Interval (In Minutes)** field displays the interval between the running of an Indexer Job by the Scheduler. By default, the intervals are set to 30 minutes.

Refresh Job Information – Link

This link is used to refresh this section’s information. This link should be clicked whenever you wish to have current information.

Get Indexing Data Information – Link

Indexing Data Information	
Documents	
Enterprise Documents	71623
Project Documents	60521
LOGS (406425)	
Log	Count
Access Code	143
Action Items	234
Addendum	35
Administration Action	0
Annual Review	0
Applicant	34
Applicant Information	117
Application Action	159
Applications Log	23
Auto Cold Storage Definitions	11
Bid Package (Owners)	438

This link's popup displays the total number of **Enterprise Documents** and **Project Documents** in the system under the **Documents** section, and it displays how many records there are for each Log type under the **Logs** section. Note, the **Logs** section's header displays the total number of Log records in the system.

This information can be used to get a sense of how much work the Indexer Jobs have to do, and it can be used with the **Document Types And Logs** tab to help optimize the Indexer Jobs.

Document Types And Logs – Tab

CMiC INDEXER

Controls | Document Types And Logs

ENTERPRISE DOCUMENT TYPES

* Select the Enterprise document Type for Indexing.

Select All
 Refresh Indexes

<input checked="" type="checkbox"/> CMiC GL Transaction	<input checked="" type="checkbox"/> PM Attachment	<input checked="" type="checkbox"/> Check Doc	<input checked="" type="checkbox"/> CMiC AP Invoice
<input checked="" type="checkbox"/> SC RFP Invoice	<input checked="" type="checkbox"/> CMiC JC Transaction	<input checked="" type="checkbox"/> UETD AP Invoices	<input checked="" type="checkbox"/> AP Registered Invoice RAVI
<input checked="" type="checkbox"/> Registered Invoices	<input checked="" type="checkbox"/> RAD Subcontract	<input checked="" type="checkbox"/> Registered Pay Request	<input checked="" type="checkbox"/> PO Invoices
<input checked="" type="checkbox"/> RAD Invoice	<input checked="" type="checkbox"/> Keith AP Reg Invoice	<input checked="" type="checkbox"/> Multi Register Pay Request	<input checked="" type="checkbox"/> Registered Pay Request Invoices
<input checked="" type="checkbox"/> RAD Registered Pay Request	<input checked="" type="checkbox"/> Emails	<input checked="" type="checkbox"/> Barraj Voucher Pay Requests	<input checked="" type="checkbox"/> CMiC AR Invoice
<input checked="" type="checkbox"/> PM DRAWINGS	<input checked="" type="checkbox"/> PM SCHEMATICS	<input checked="" type="checkbox"/> SC Pay Request - Voucher	<input checked="" type="checkbox"/> Sub RFP
<input checked="" type="checkbox"/> Job Pictures	<input checked="" type="checkbox"/> Uncategorized Document	<input checked="" type="checkbox"/> SB - JC transaction	<input checked="" type="checkbox"/> Barraj AP Reg Invoice
<input checked="" type="checkbox"/> PO Entry	<input checked="" type="checkbox"/> AP Registered Invoices RAVI	<input type="checkbox"/> RV AR Invoice	

PROJECT DOCUMENT TYPES

* Select the Project document Type for Indexing.

Select All
 Refresh Indexes

<input checked="" type="checkbox"/> Test for issue 14.91683	<input checked="" type="checkbox"/> Audio/Video	<input checked="" type="checkbox"/> Financial Documents from Prequal	<input checked="" type="checkbox"/> Schematics and Blueprints
<input checked="" type="checkbox"/> Doc7	<input checked="" type="checkbox"/> Drawings	<input checked="" type="checkbox"/> Attachment	<input checked="" type="checkbox"/> Photos

PROJECT LOGS

* Select the Project Logs Indexing.

Select All
 Refresh Indexes

<input checked="" type="checkbox"/> Access Code	<input checked="" type="checkbox"/> Addendum	<input checked="" type="checkbox"/> Administration Action	<input checked="" type="checkbox"/> Annual Review
<input checked="" type="checkbox"/> Action Items	<input checked="" type="checkbox"/> Applicant Information	<input checked="" type="checkbox"/> Application Action	<input checked="" type="checkbox"/> Applications Log
<input checked="" type="checkbox"/> Applicant	<input checked="" type="checkbox"/> Bidder Response Log	<input checked="" type="checkbox"/> Budget Status Query	<input checked="" type="checkbox"/> Budget Status Query (Category)
<input checked="" type="checkbox"/> Bid Packages	<input checked="" type="checkbox"/> Class Enrollment	<input checked="" type="checkbox"/> Collaborator Submittals	<input checked="" type="checkbox"/> Communications
<input checked="" type="checkbox"/> Buyout Items	<input checked="" type="checkbox"/> Contacts	<input checked="" type="checkbox"/> Contract Forecasting	<input checked="" type="checkbox"/> Cost Status Query
<input checked="" type="checkbox"/> Compliance Status	<input checked="" type="checkbox"/> Course Enrollment	<input checked="" type="checkbox"/> Customized Issues Log	<input checked="" type="checkbox"/> Daily Journal Costs
<input checked="" type="checkbox"/> Cost Status Query (Category)	<input checked="" type="checkbox"/> Delivery Management Communications	<input checked="" type="checkbox"/> Delivery Management Issues	<input checked="" type="checkbox"/> Delivery Management Meeting Minutes
<input checked="" type="checkbox"/> Delivery Management Communications	<input checked="" type="checkbox"/> Delivery Management Issues	<input checked="" type="checkbox"/> Delivery Management Meeting Minutes	<input checked="" type="checkbox"/> Document Package

Sample of CMiC Indexer's Document Types And Logs tab.

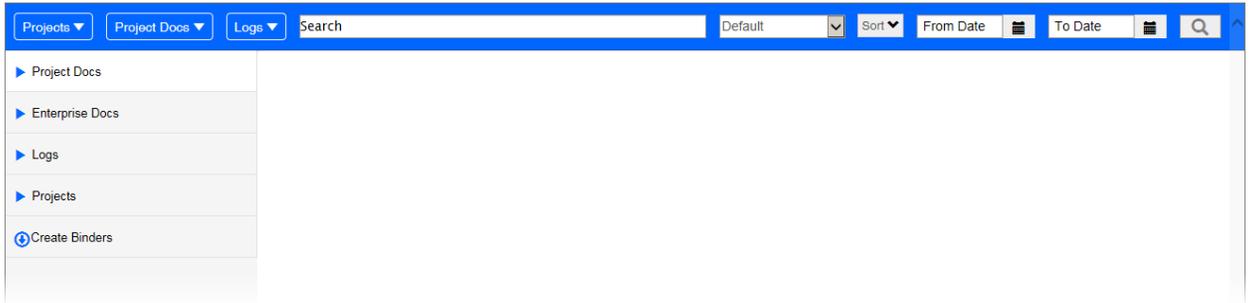
The **Document Types And Logs** tab is used to select which document and PM Log types are to be indexed, and thus, which document types and Logs are searchable via CMiC Search.

The **Enterprise Document Types** section lists the document types in Enterprise, the **Project Document Types** section lists the types of documents in the Project Management module, and the **Project Logs** section lists the PM Log types in the Project Management module.

After making changes, click the corresponding [**Refresh Indexes**] button to commit them.

NOTE: The Indexer should be restarted after application server restart.

CMiC Search



Launch CMiC Search by typing the following URL in a new browser session or manually add it to the Treeview.

<http://<SERVER>:<PORT>/cmic<ENVIRONMENT>/CMiCSearch/CMiCSearch.do>

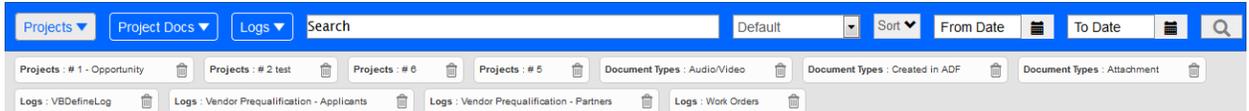
The Single Sign-On screen is displayed to log into the system. Enter your login credentials.

Search Filters



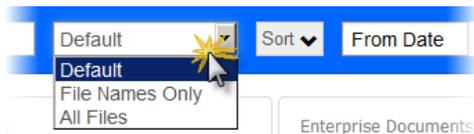
Searches can be performed against Projects, indexed PM Document types, and indexed PM Logs using the **Projects**, **Project Docs** and **Logs** dropdown filters on the ribbon, as shown above.

After selecting which Projects, PM Documents and PM Logs to search against, the selections are displayed under the blue ribbon (shown below), and they can be deleted by clicking their corresponding Trash icon.



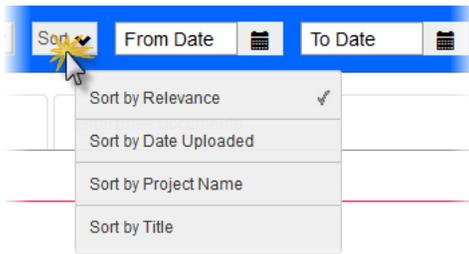
NOTE: The Projects filter is not applied to PM Log searches.

Search Mode



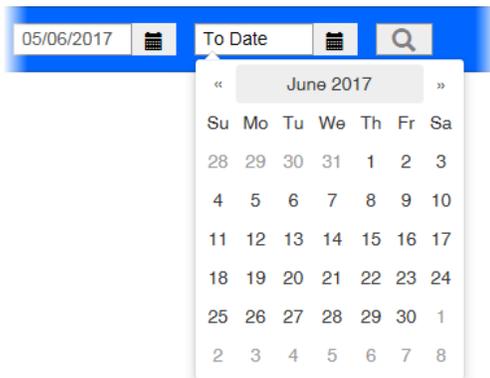
Search Mode	Details
Default	Search file names as well as file contents – applicable to PM Documents and Enterprise Documents.
File Names Only	Search file names only – applicable to PM Documents and Enterprise Documents.
All Files	Search for matching files in selected Projects from the Projects filter.

Sort



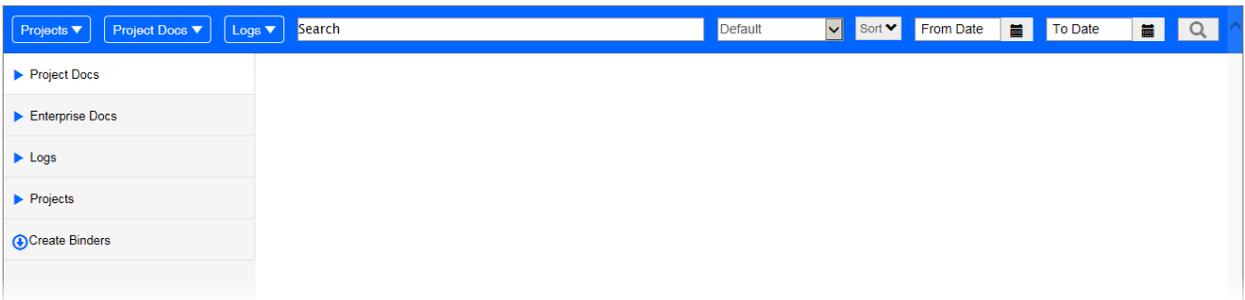
Search results can be sorted by relevance, by upload dates, project names or by titles.

From Date, To Date



Use the **From Date** and **To Date** fields to filter search results by upload dates.

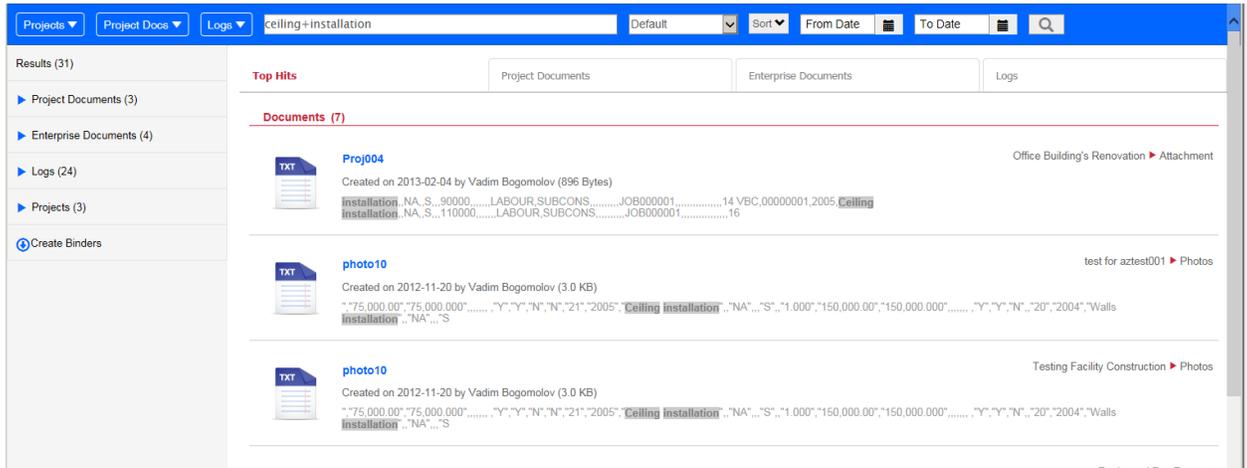
Searching



Enter the search text in the **Search** field and hit Enter or click the Search icon (magnifying glass) at the end of the blue ribbon.

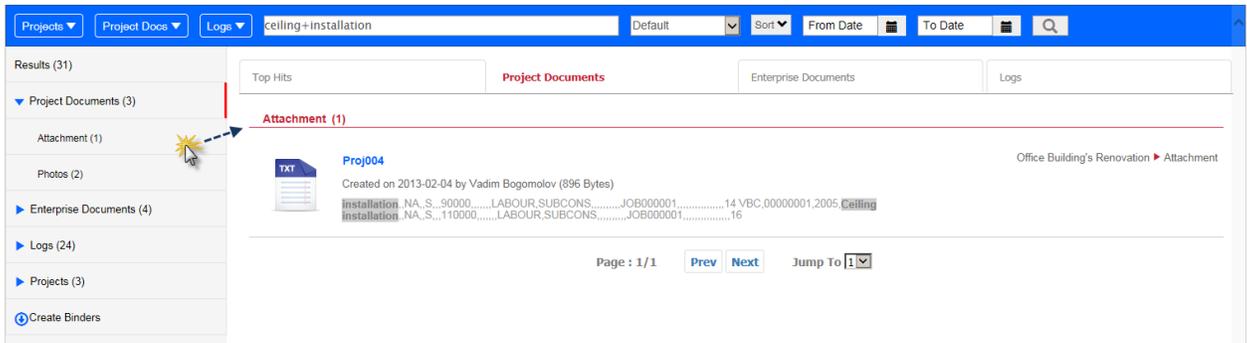
Search results, if any, will be categorized appropriately and available via the **Project Docs**, **Enterprise Docs**, **Logs** and **Projects** categories on the screen's left pane, as shown above.

For example, if the search text “ceiling+installation” is entered, the result would show the following, with matched terms highlighted in grey:



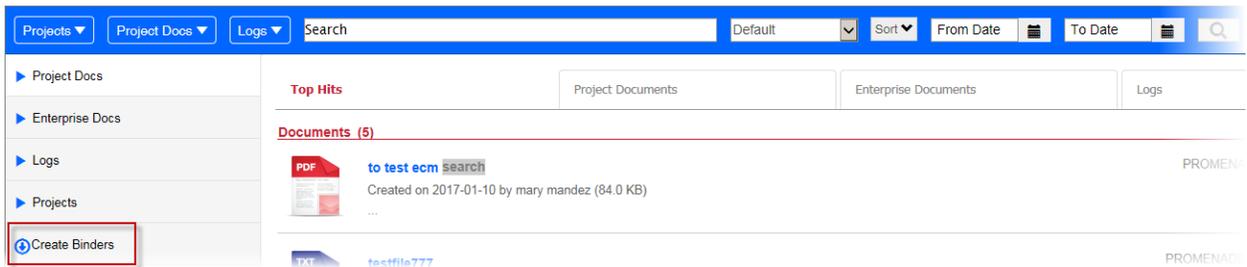
NOTE: When searching for a phrase, use ‘+’ to replace space between words.

Clicking on a document type causes its sub-types to be listed under it, and the search results to be displayed in the screen’s right pane. Clicking on a sub-type causes its search results to be displayed in the right pane.

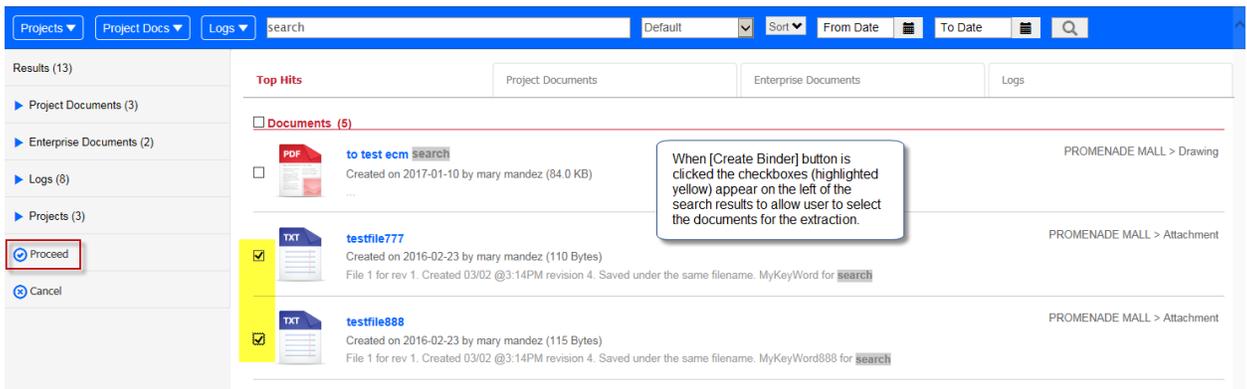


Clicking on a document icon or title allows you to download the document. Clicking the text under the “Created on” date information opens the record in the appropriate Enterprise screen.

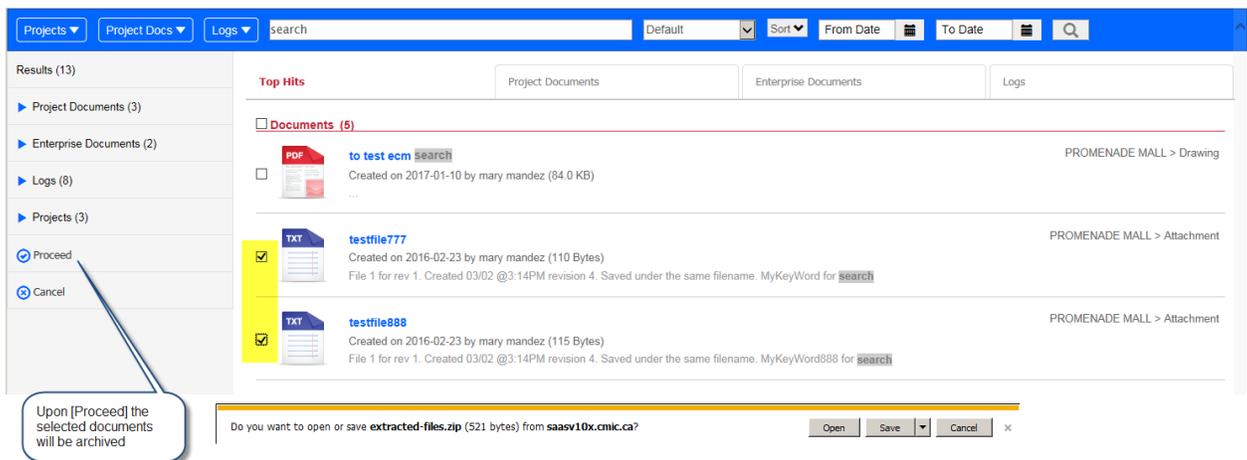
Create Binders



The [Create Binders] button is used to create a zip file of the selected documents from the search results, and it is applicable to PM Documents and Enterprise Documents. Use the checkbox that appears after clicking this button to select which files to include in the zip file:



Click [Proceed], and you will be asked whether you want to open or save the extracted files:



Auto Cold Storage (ACS)

Overview – Auto Cold Storage

Auto Cold Storage generates and stores PDF documents, based on a print event definition. It can be run on demand or on a scheduled basis.

NOTE: The current version works with Oracle reports only.

Auto Cold Storage Setup

Commands to Manage Auto Cold Storage on Server

NOTE: These commands are likely only relevant to IT personnel.

The following are commands to start and stop Auto Cold Storage on its server, and to check its status.

First, the path to the server running Auto Cold Storage is required, as this path is used to create these commands. Here, this path is symbolized as *<Serverpath>*, which would be something like, `http://...`

The following are commands to control the running of Auto Cold Storage on its server:

Start Scheduler

```
<Serverpath>/SysRptParams/Schedule.do?start
```

Start Scheduler with Interval

Interval, specified by following *<Integer>* replacement field, is in minutes, with 5 minutes being the default:

```
<Serverpath>/SysRptParams/Schedule.do?start&interval=<Integer>
```

Stop Scheduler

```
<Serverpath>/SysRptParams/Schedule.do?stop
```

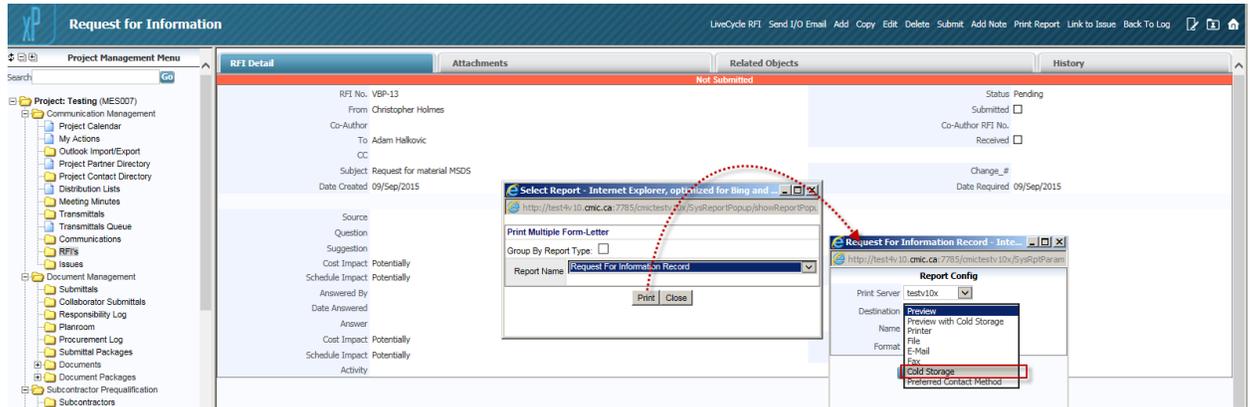
Get Status of Scheduler

```
<Serverpath>/SysRptParams/Schedule.do?status
```

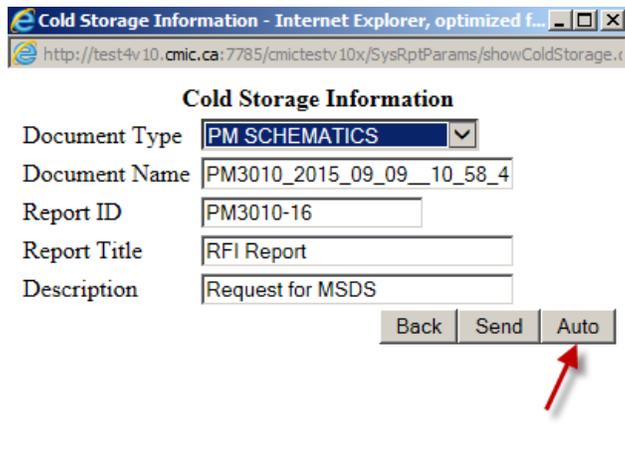
Defining Triggers for Automatic Report Generation

The following are instructions on how to define Auto Cold Storage triggers to automate the generation of a particular report, using the Project Management module's RFIs (RFI VBP-13) as an example:

Step 1: Enter Report's Cold Storage Information

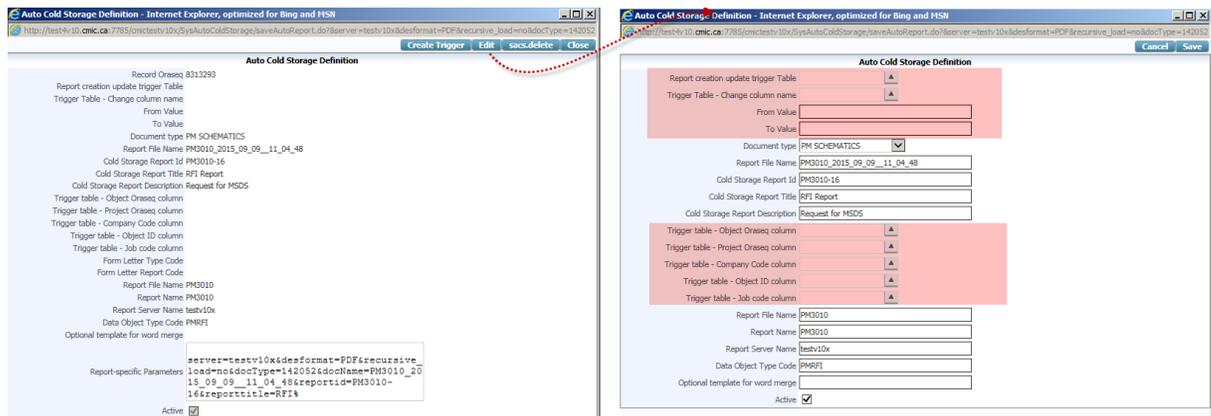


I) Run the desired report, and in the Report Configuration pop-up, select “Cold Storage” for the **Destination** field, as shown in the above screenshot, and click [Run Report].



II) In the Cold Storage Information pop-up, as shown above, fill out the required information for the report and click the [Auto] button.

Step 2: Define Triggers to Generate Report



1) Click **[Edit]** in the Auto Cold Storage Definition window that pops up to switch it to Edit mode. With the window in Edit mode, as shown on the right, fill in the required (highlighted) configuration fields to define the trigger for automatic report generation. The following are descriptions for the required configuration fields:

Report creation update trigger Table

Select the table where updates are to trigger the generation of the report.

Trigger Table - Change column name

Select the column to trigger the report's generation when its values changes.

From Value, To Value

This range is optional. When the value for the specified column changes, within this specified range, the report will be generated. Refer to the following sub-section, How the Auto Cold Storage Definition Affects the Trigger Logic for further details.

- Trigger table - Object Oraseq column,
- Trigger table - Project Oraseq column,
- Trigger table - Company Code column,
- Trigger table - Object ID column,
- Trigger table - Job code column

If applicable, selections may also be required for these configuration fields. Refer to the following screenshot for an example of selected values for these fields.

The following screenshot illustrates an example of a trigger definition that generates the specified report when an RFI gets marked as answered:

The screenshot shows a web browser window titled "Auto Cold Storage Definition - Internet Explorer, optimized for Bing and MSN". The address bar shows a URL from cmic.ca. The main content area is a form titled "Auto Cold Storage Definition" with a "Cancel" and "Save" button in the top right. The form fields are as follows:

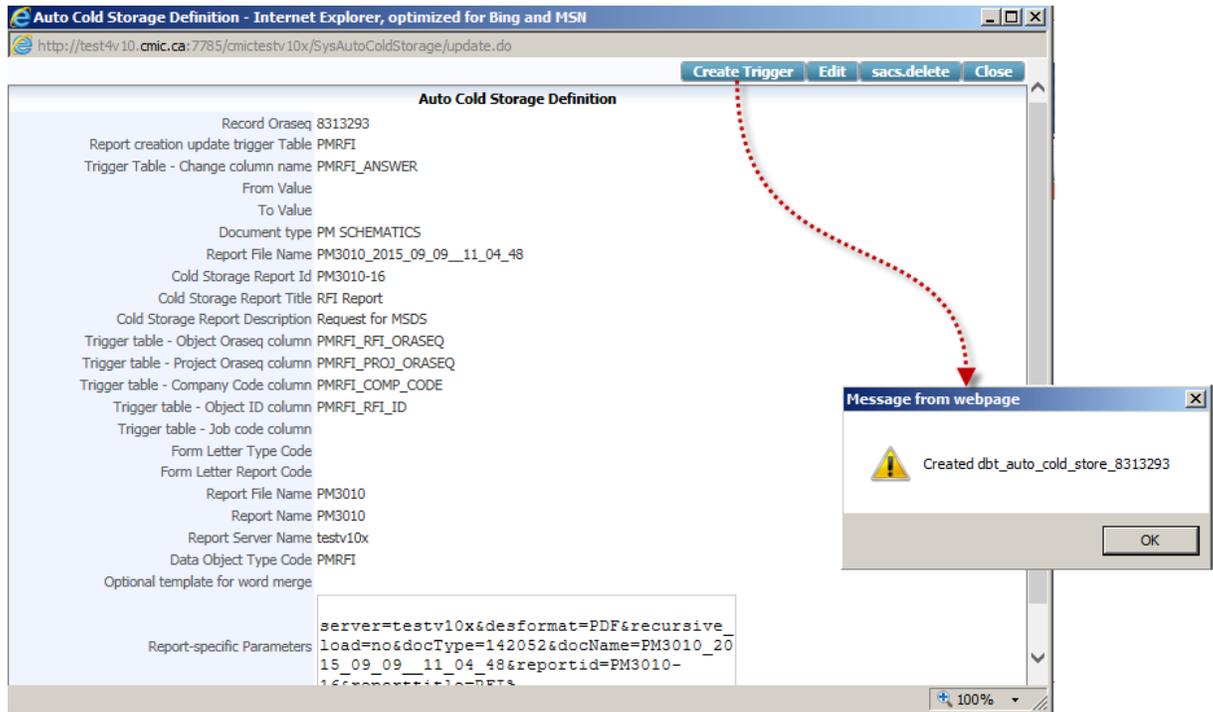
- Report creation update trigger Table: PMRFI
- Trigger Table - Change column name: PMRFI_ANSWER
- From Value: [Empty text box]
- To Value: [Empty text box]
- Document type: PM SCHEMATICS
- Report File Name: PM3010_2015_09_09_11_04_48
- Cold Storage Report Id: PM3010-16
- Cold Storage Report Title: RFI Report
- Cold Storage Report Description: Request for MSDS
- Trigger table - Object Oraseq column: PMRFI_RFI_ORASEQ
- Trigger table - Project Oraseq column: PMRFI_PROJ_ORASEQ
- Trigger table - Company Code column: PMRFI_COMP_CODE
- Trigger table - Object ID column: PMRFI_REF_ID
- Trigger table - Job code column: [Empty text box]
- Report File Name: PM3010
- Report Name: PM3010
- Report Server Name: testv10x
- Data Object Type Code: PMRFI
- Optional template for word merge: [Empty text box]
- Active:

How Auto Cold Storage Definition Affects Trigger Logic

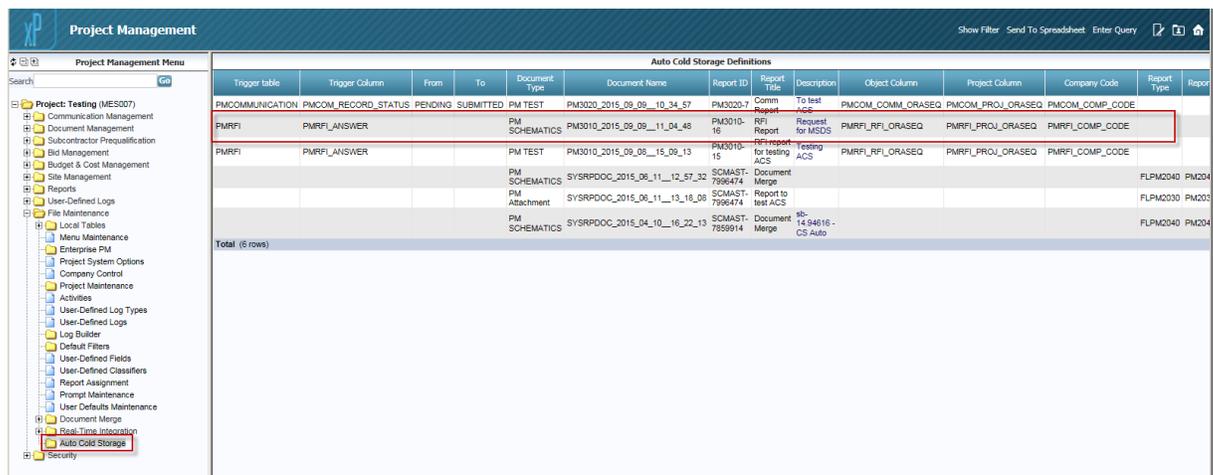
Auto Cold Storage Trigger Column Definition		Values of the Column in the Updated Table	
Old Column Value	New Column Value	Launch Workflow When Old Column Value Is	... and New Column Value Is
Null	Null	Null	Not null
Null	Specified value	Null	Specified value
Null	Specified value	Anything except the specified value	Specified value
Old value	New value	Old value	New value

Please note that the assumption in the last case is that the old and new values specified in the setup are different. If they are the same, any update to the table will launch the workflow. This is clearly not desirable, so we may add validation logic to prevent such a setup. There is currently no way to trigger a workflow when a column becomes null.

II) Click [Save] and then click the [Create Trigger] button. The following confirmation message appears:

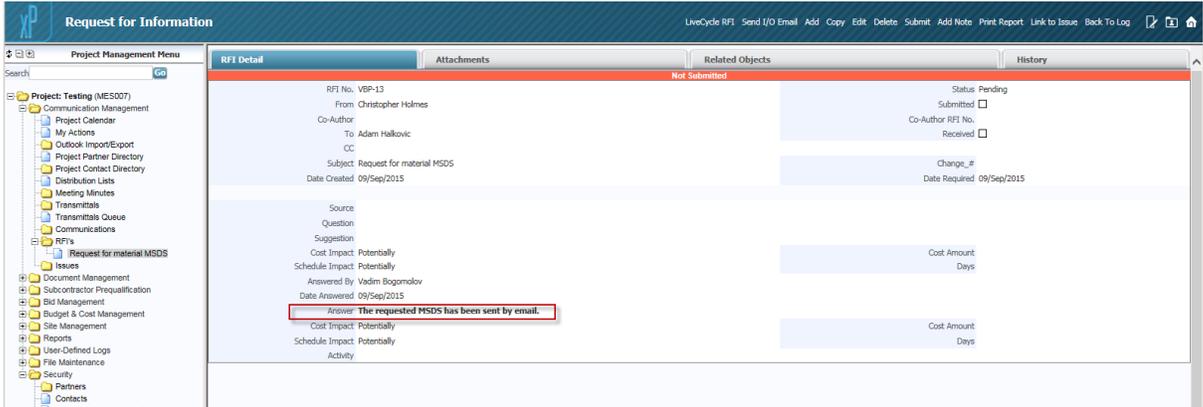


Upon clicking [OK], a new Trigger Definition record appears in the Auto Cold Storage Definitions log screen, in the File Maintenance node of the Treeview, as shown in the left pane of the below screenshot. To customize the column headers, their order and visibility, the Auto Cold Storage Definitions Log Builder screen is used. Please refer to the following *Log Builder for Auto Cold Storage Definitions* section for additional details.



Sample of Auto Cold Storage Definitions Log screen, containing entries for each newly created trigger.

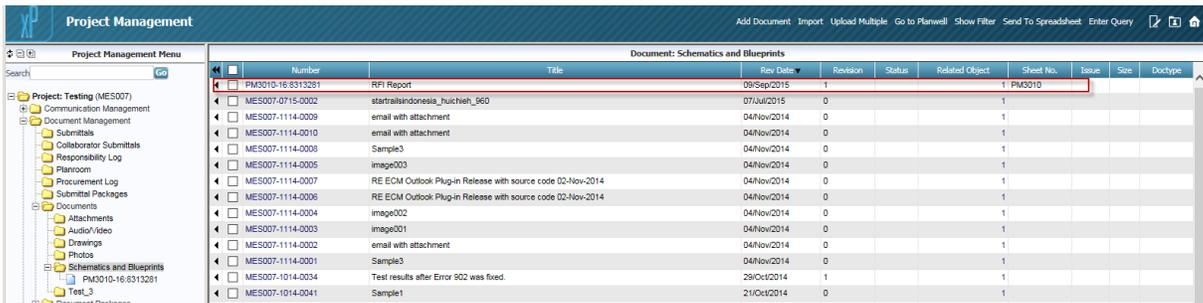
At this point the trigger is set and when a RFI is answered, the report will be generated automatically and it will appear on the **Attachment** tab, as follows:



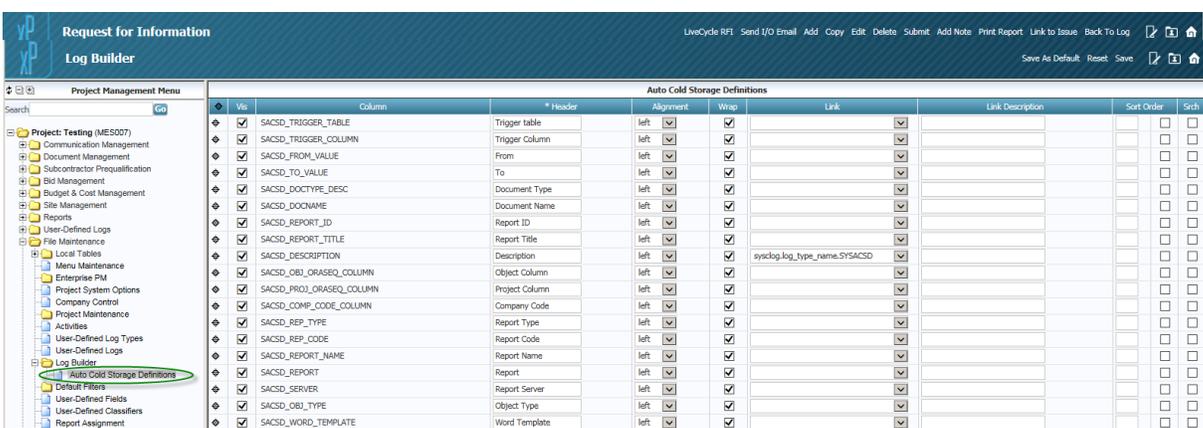
The report, as an RFI document, is added to the **Attachments** tab in the specified folder:



The RFI document is also added to the specified document type log:



Log Builder for Auto Cold Storage



Sample of Auto Cold Storage Definitions screen, used to customize the Auto Cold Storage Log screen.

The Auto Cold Storage Definitions screen is used to turn fields in the Auto Cold Storage Log into hyperlinks, and to customize the headers, order, and visibility of the its columns.

NOTE: Access to the Auto Cold Storage Definitions screen is determined by the user’s security settings.

Create Link in ACS Log to Launch ACS Definitions Screen

To create a link to access the ACS (Auto Cold Storage) definitions screen from the ACS Log, select **syslog.log_type_name.SSYSACSD** from the LOV of the **Link** column for the relevant field, as shown in the below screenshot, and click **[Save As Default]**.

The screenshot shows the 'Log Builder' interface with the 'Auto Cold Storage Definitions' table. The 'Link' column for the 'Report ID' field is highlighted, showing the selection of 'syslog.log_type_name.SSYSACSD'. A callout box states: "Select 'syslog.log_type_name.SSYSACSD' from the LOV and click [Save As Default]. In this particular case it is done for 'Report ID' - and the Report ID field will be the link to access ACS definitions screen."

As shown in the following screenshot, the field in the ACS Log becomes a hyperlink that launches the ACS Definitions screen:

The screenshot shows the 'Project Management' interface with the 'Auto Cold Storage Definitions' table. The 'Report ID' field is now a hyperlink. A callout box states: "ACS definitions screen now can be accessed via Report Id link".

Trigger table	Trigger Column	From	To	Document Type	Document Name	Report ID	Report Title	Description	Report Code	Report Name	Report	Report Server	Object Type
PMCOMMUNICATION	PMCOM_RECORD_STATUS	PENDING	SUBMITTED	PM TEST	PM3020_2015_08_08_10_34_57	PM3020-7	Comm Report	To test ACS	PM3020	PM3020	testv10x	PMCMIN	
PMRFI	PMRFLANSWER			PM TEST	PM3010_2015_08_08_15_08_13	PM3010-15	RFI report for testing ACS	Testing ACS	PM3010	PM3010	testv10x	PMRFI	
PMRFI	PMRFLANSWER			PM SCHEMATICS	PM3010_2015_08_09_11_04_48	PM3010-16	RFI Report	Request for MSDS	PM3010	PM3010	testv10x	PMRFI	
				PM Attachment	PM3010_2015_08_25_15_37_33	PM3010-18	Document Merge	test	PM3010	PM3010	testv10x	PMRFI	
				PM SCHEMATICS	SYSRPDOC_2015_06_11_12_57_32	SCMAST-7996474	Document Merge		PM2040A_ST	SYSRPDOC	SYSRPDOC	testv10x	SCMAS
				PM SCHEMATICS	SYSRPDOC_2015_04_10_16_22_13	SCMAST-7559914	Document Merge	88-14.94616 CS Auto	PM2040A_ST	SYSRPDOC	SYSRPDOC	testv10x	SCMAS
				PM Attachment	SYSRPDOC_2015_06_11_13_18_08	SCMAST-7996474	Report to test ACS						SCMAS
Total (7 rows)													

ECM Explorer

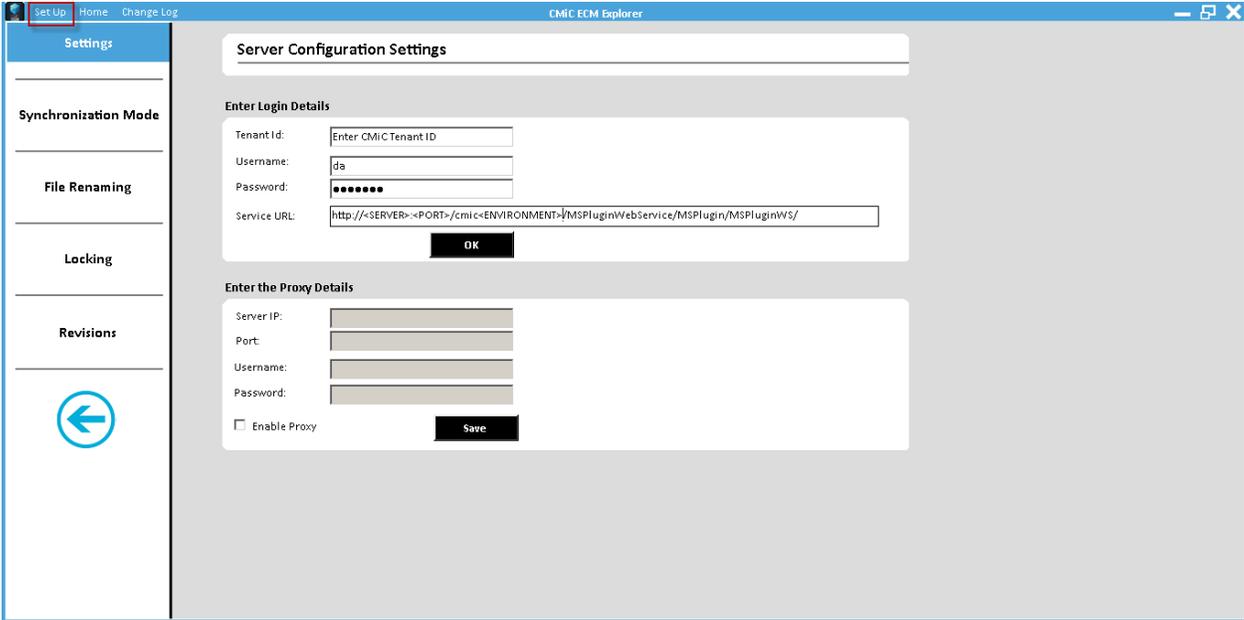
Installation

If the ECM Explorer has not been installed on your system, contact your System Administrator to obtain the required files and run the .EXE for the necessary plug-in, or have them installed by your IT department.

Set Up – Screen

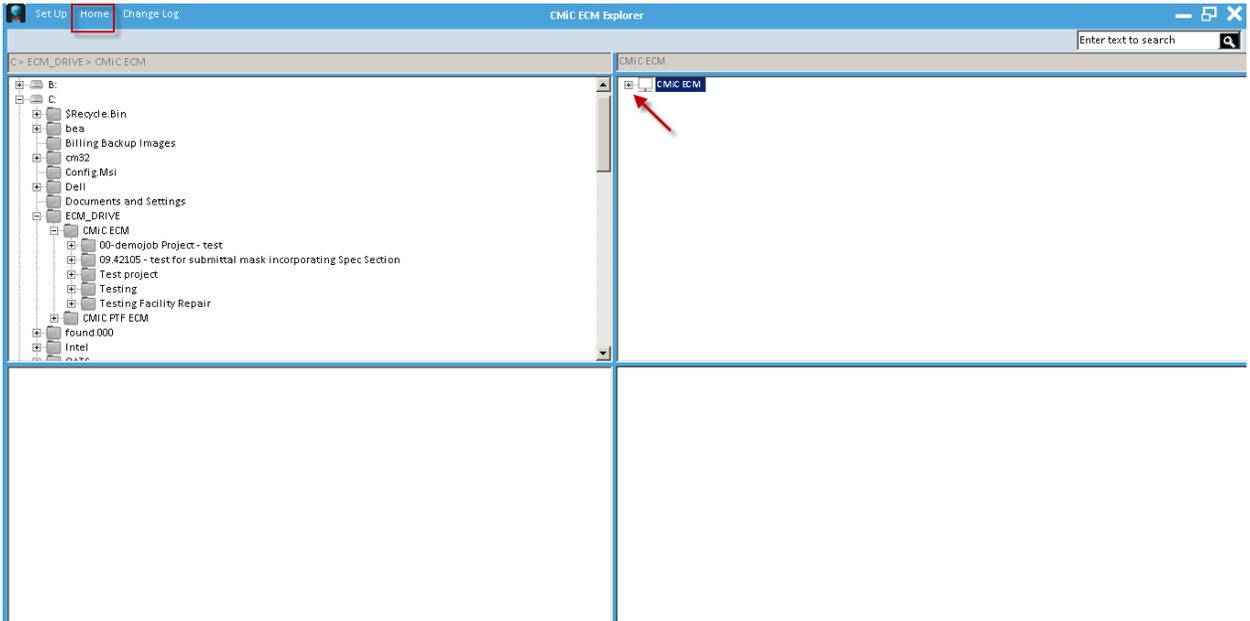
Settings

The connection to the ECM service is configured on the Set Up screen:

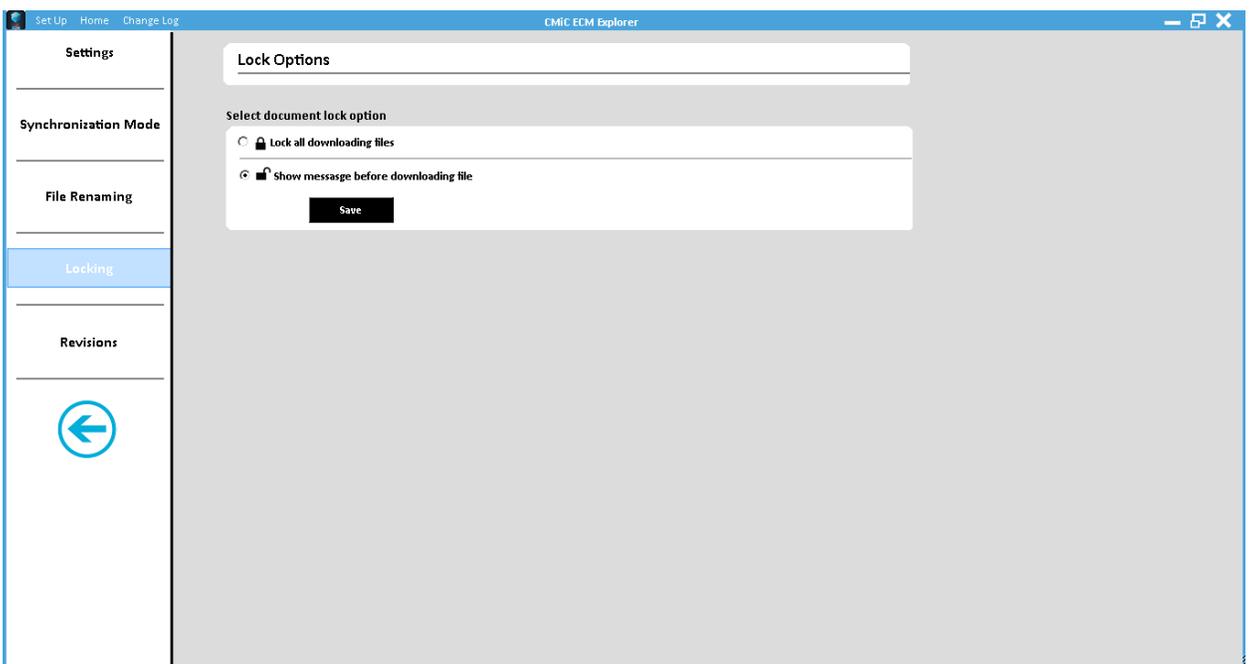


Enter Single Sign On user ID, password and applicable URL for ECM service and click [OK].

When connection is established the expandable “CMiC ECM” node will be shown on the right pane of the main screen (Home):



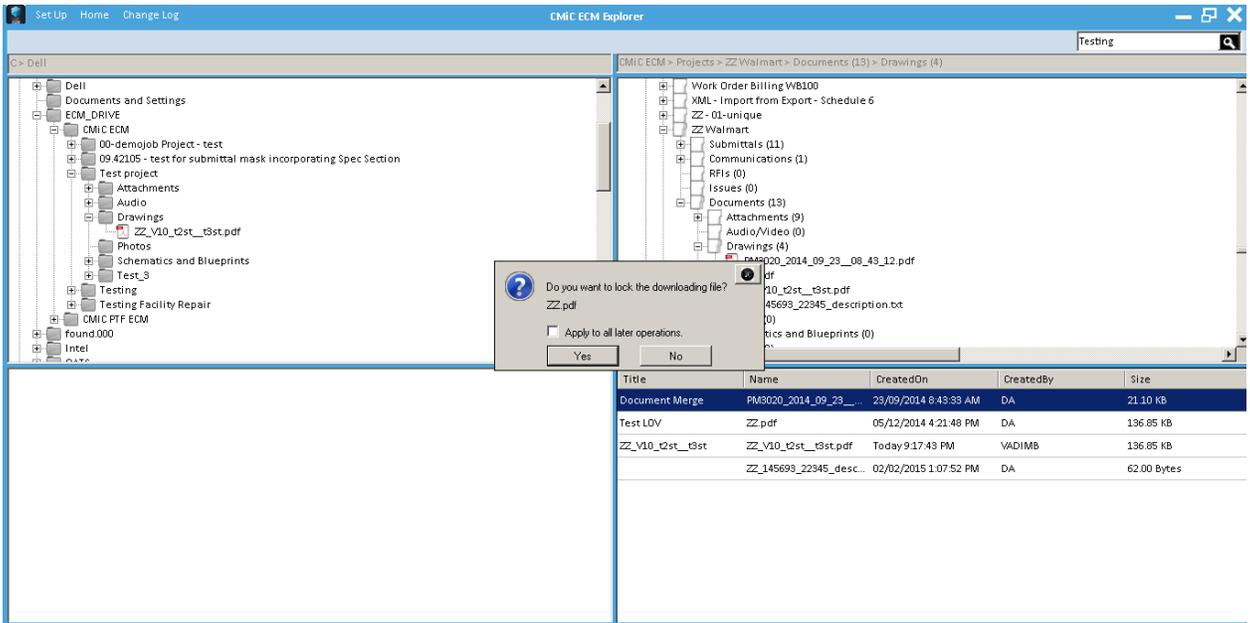
Locking



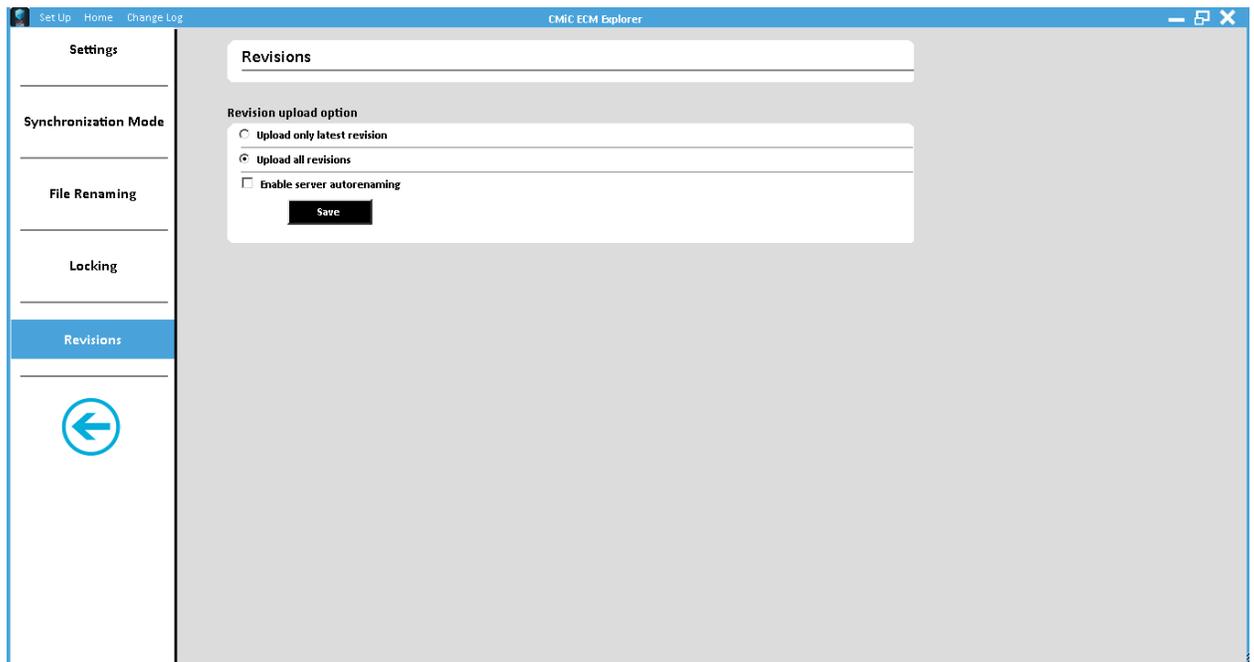
Files which are being downloaded can be locked/unlocked based on this setting.

The **Lock all downloading files** option will lock them for the change.

The **Show message before downloading file** option will prompt the user if file should be locked or not:



Revisions

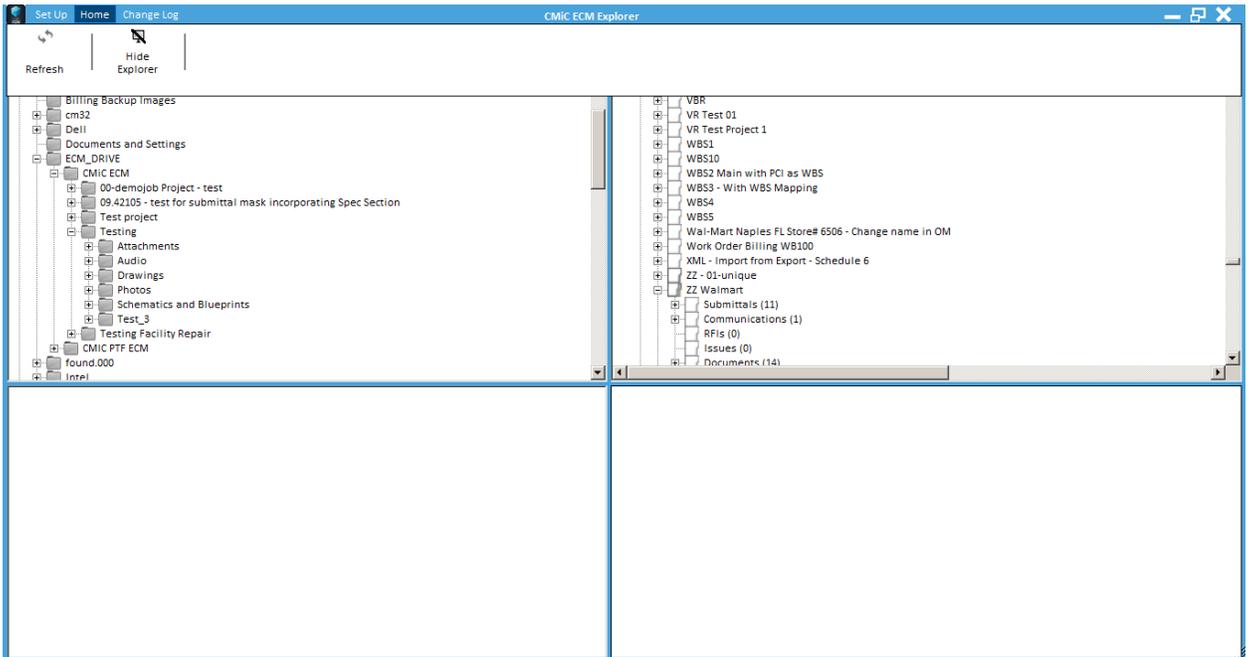


There are two revision options for the documents to be uploaded:

1. To upload only the last revision of the document.
2. To upload all revisions.

If the **Enable server autorenamning** checkbox is checked, the app will apply the document autorenamning settings on the server, if there are any.

Home – Screen



There are two buttons on the Home screen:

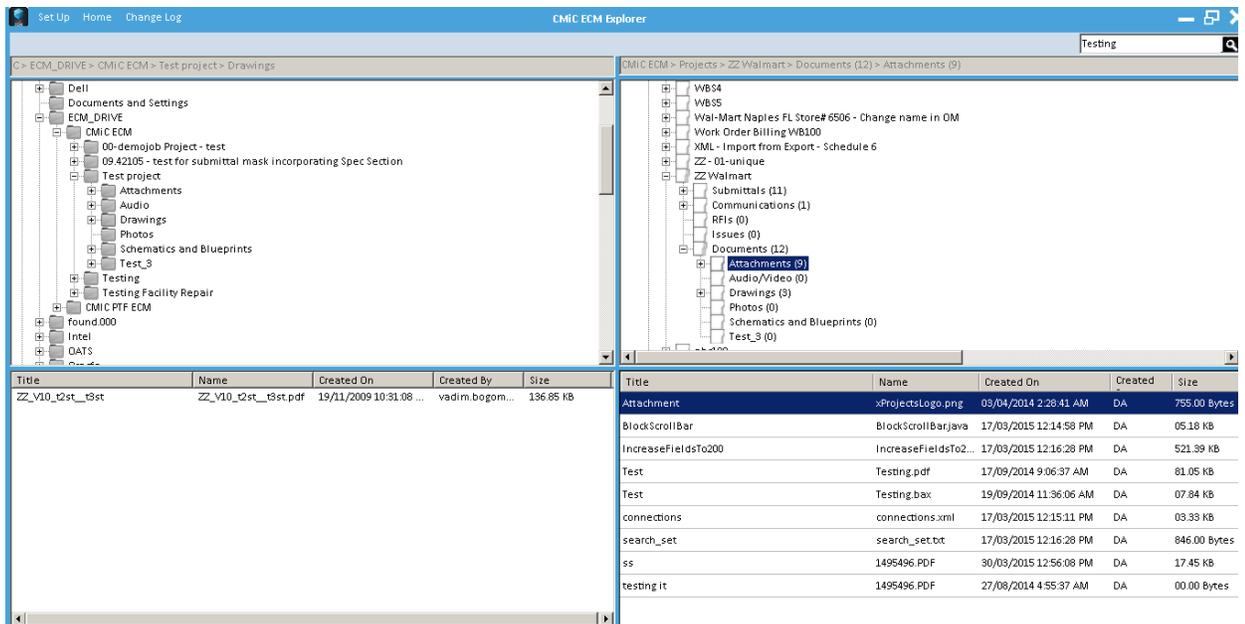
[Refresh] – Button

Updates the ECM treeview content in the panes.

[Hide Explorer] – Button

Removes the local drive pane.

Panes

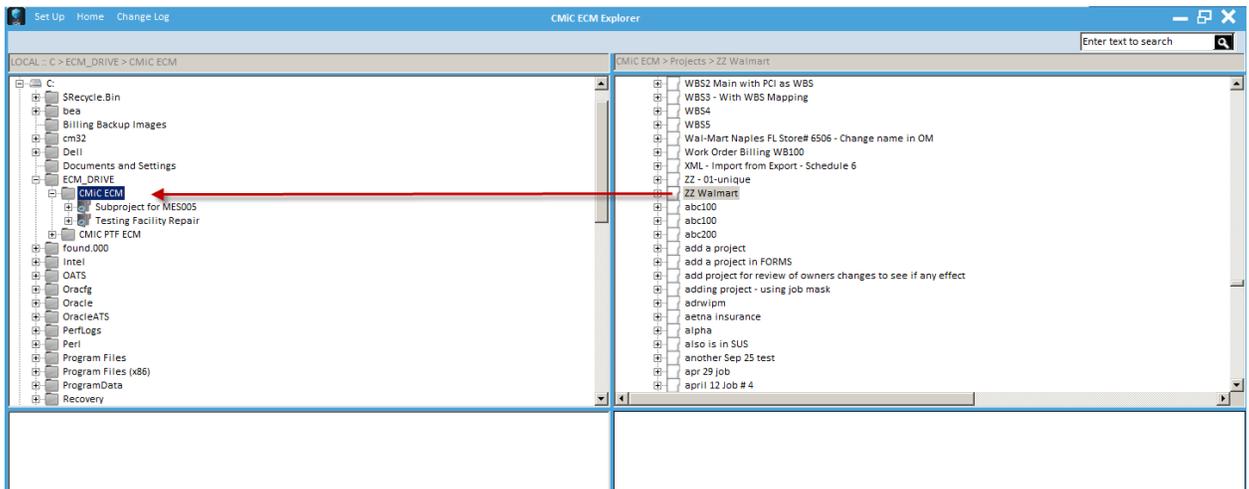


The main window is split into 2 panes. The left pane shows the treeview of the local drive. The ECM treeview from the server is displayed on the right pane. The bottom sections show the details of the selected items.

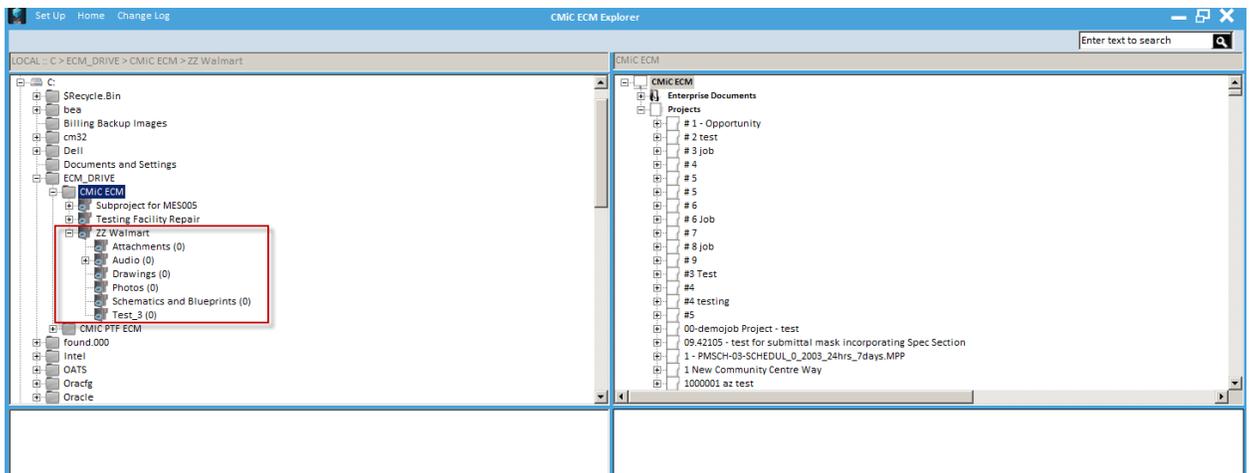
Document Synchronization

To perform the document synchronization operation for the particular project, 2 steps are required:

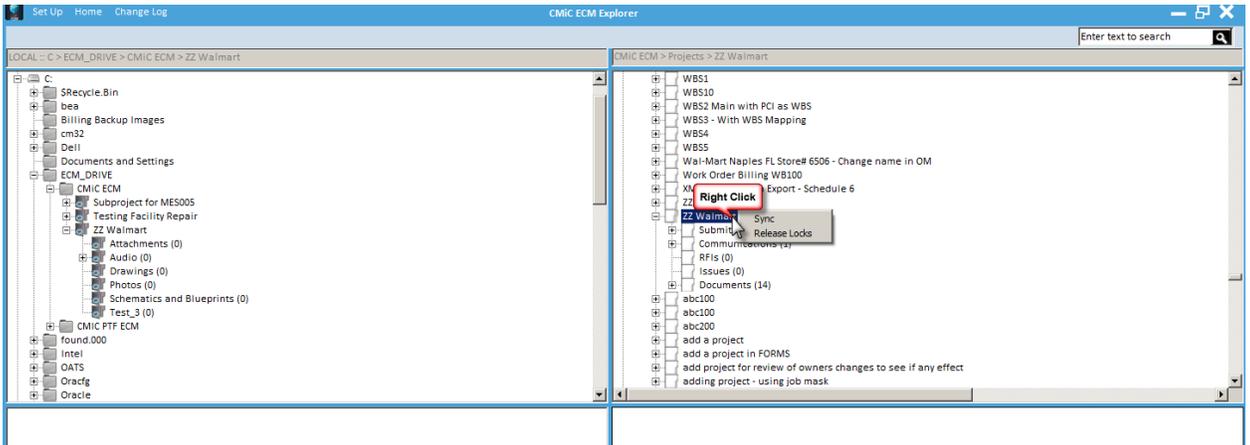
Step 1: Create folder for the project – drag and drop the project node to the ECM folder on the local drive:



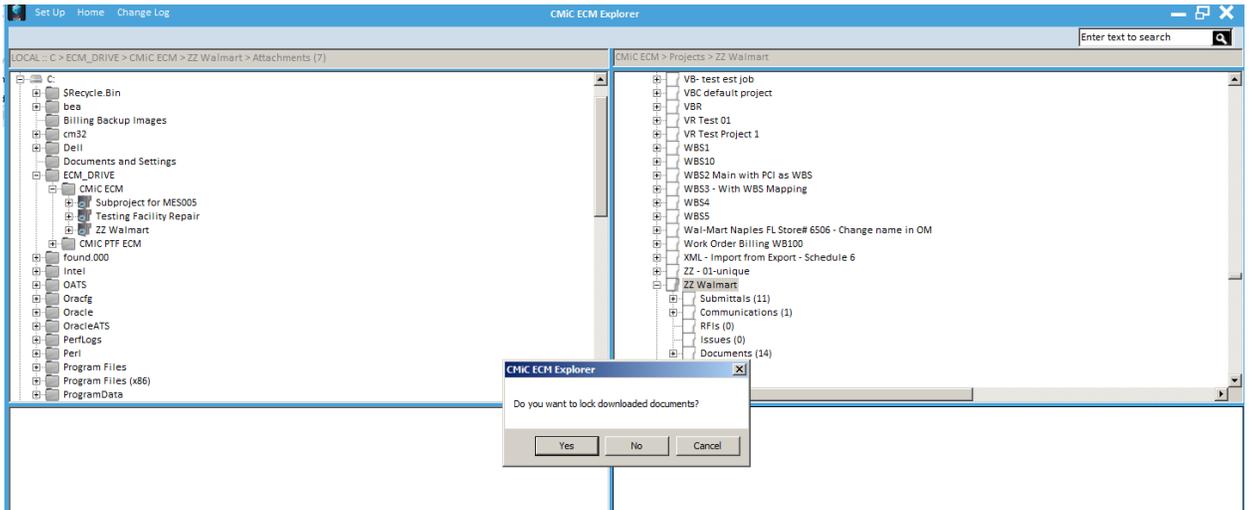
This operation creates the document folders structure (without documents) for the project as it exists on the server:



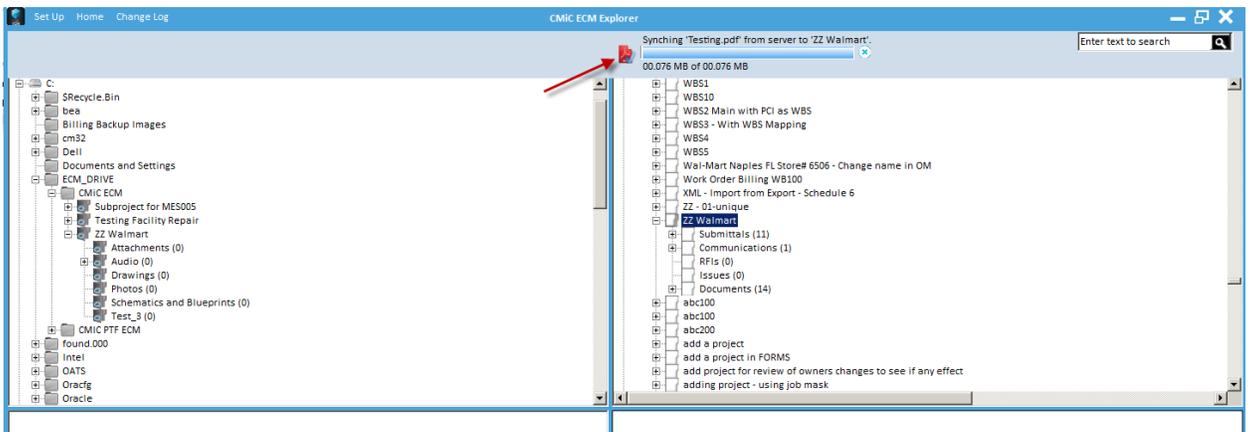
Step 2: Right click on the project node to display the context menu:



Choose the 'Sync' option, and select your file locking choice for the downloaded documents, then documents from the project will be copied to the local drive:



The bar on top of the ECM Explorer window will show the progress of the synchronization:



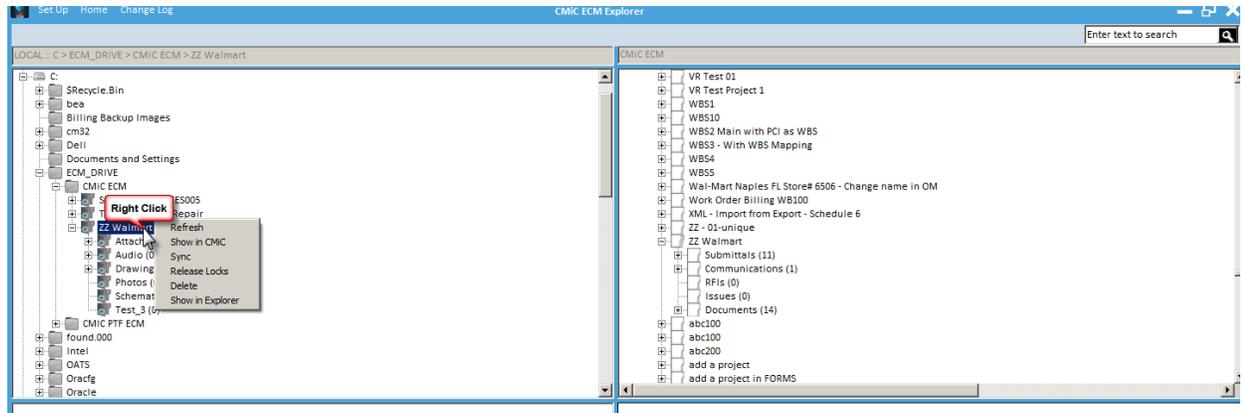
File Operations

Selected files can be copied from the local drive to the server and vice versa. Simply drag-and-drop them from one pane to another. Depending on the destination node, the files will be added to the PM item as attachments or to the Document folder.

Context Menu on Local Side

There are two types of local context menus:

1. For Projects



Available options are:

Refresh: refreshes the display of the content for current project to show latest changes.

Show in CMiC: finds and displays the current project on the right side of the window.

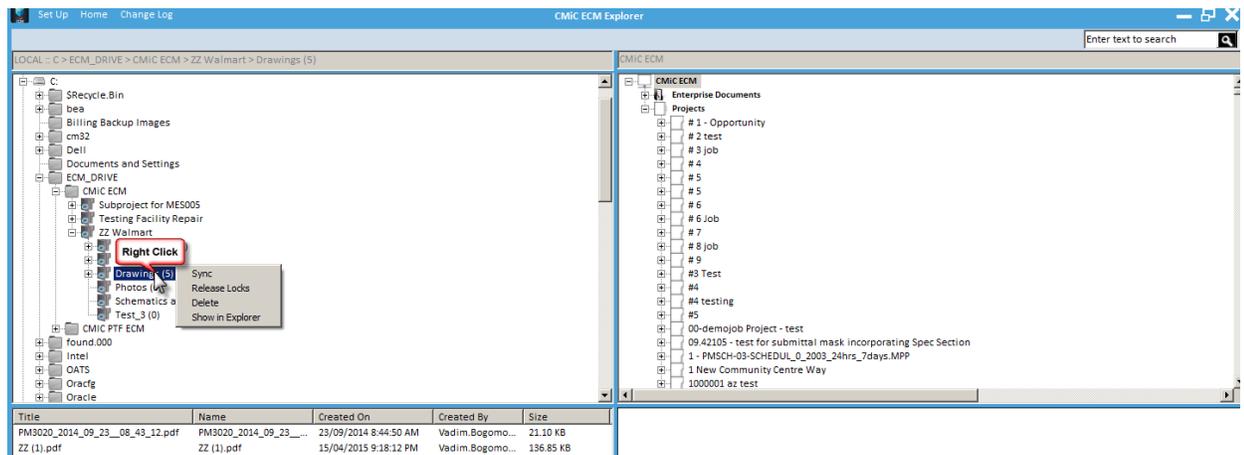
Sync: performs the document synchronization for current project.

Release Locks: unlocks the documents.

Delete: deletes the current project folders tree from the local drive.

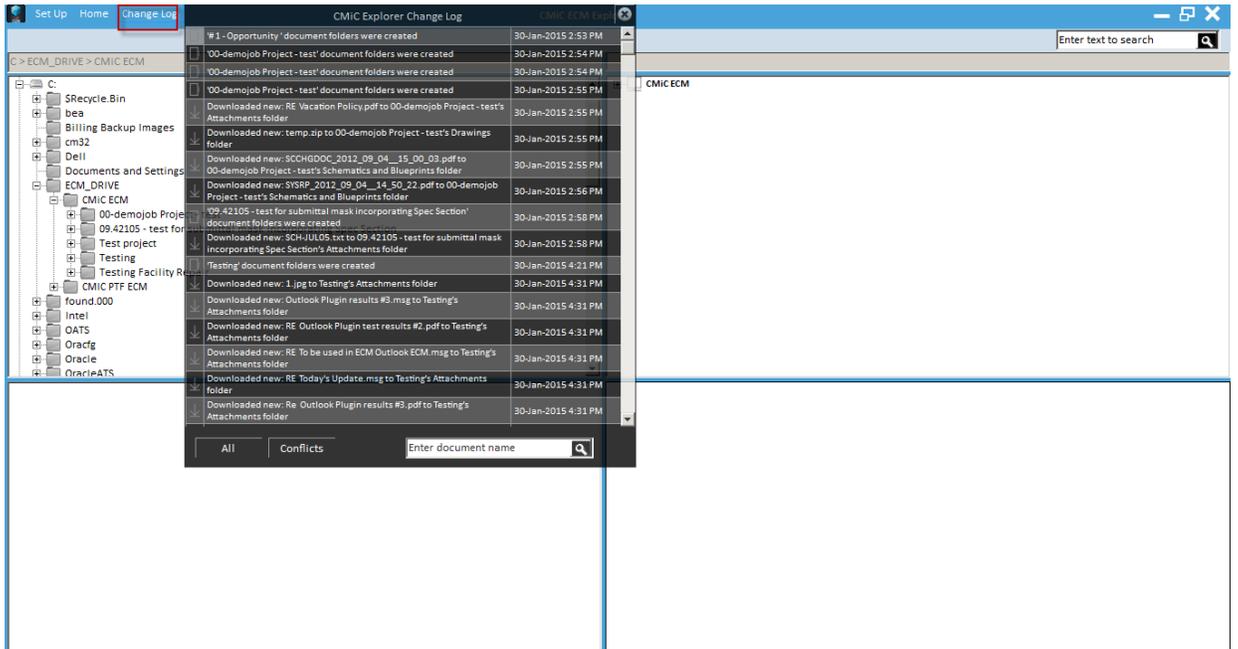
Show In Explorer: shows the current folder in Windows Explorer.

2. For Document Folders



The available options will be applied to the selected documents/folder, and they work the same way as the ones of the project menu.

Change Log – Popup



The Change Log popup displays information about changes in the documents content. It can be filtered by using the [All] or [Conflicts] buttons along the bottom, or by entering search text into the search field.

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