Reference Guide

Imaging v10x (ADF)

By CMiC

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User Reference Guide – Version: **CMiC Open Enterprise v10x** Printed: **April 21, 2020**

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Imaging – ADF

Imaging Overview

The CMiC Imaging module is a combination module that allows the user to link an image directly to one or more CMiC objects such as vouchers, jobs, and indirectly to Job Billing invoices. All images that are registered can be viewed from any related CMiC Enterprise screen just by using a search utility.

The module allows the user to create flysheets which are user defined data entry screens linked to images and CMiC objects. A flysheet is where users enter data regarding the image, which when complete, depending on the type can be transformed into a CMiC object.

Imaging is also linked to CMiC workflow, which allows the user to define their own corporate workflow procedures for each type of image. Workflow allows for approvals, routing for more information, and FYI type of notices.

Imaging configuration is intended to be a DBA type of function as it requires knowledge of the network/IAS server setup, workflow setup, and a strong knowledge of CMiC tables and module requirements.

The generic dataflow for CMiC Imaging is:

- Scan or move the image into the required directory.
- The module then processes the image and records it against the correct category or marks it as uncategorized.
- Categorize the uncategorized images.
- The image is now available for the user(s) to enter flysheet information.
- When the submit command is issued from a flysheet, the module processes the required workflow. The same flysheet may have multiple workflows.
- Once all workflow is completed, the module, if required, then transforms the data entered on the flysheets associated with the image into a CMiC object if there is a link.

The Imaging module uses a security matrix over and above the standard CMiC Enterprise security. Image security must be applied, otherwise users will not be able to see/view any document types. Each object within imaging (flysheets, sources, document types, etc.) must have security applied.

For ease of use, the module is installed with 28 standard imaging objects. These objects are a sample of what can be done within the Imaging module, they do not encompass all objects or all functionality and fields for all objects. CMiC recommends that these objects be used as a basis for creating their own objects rather than using/modifying these standard objects.

Working with Images

Overview – Working with Images

Images can be any type of document, Word files, PDF files, spreadsheets, etc. An image can be a scanned document, a CAD drawing, or any other type of file. All will work as long as the user has access to the right viewer.

The CMiC Imaging module starts to work once an image is put into pre-defined Imaging directories. These directories represent different sources and potentially different types of documents. Once a document has been placed in the appropriate source directory, all further work will be done via the Imaging screens.

Image Manager

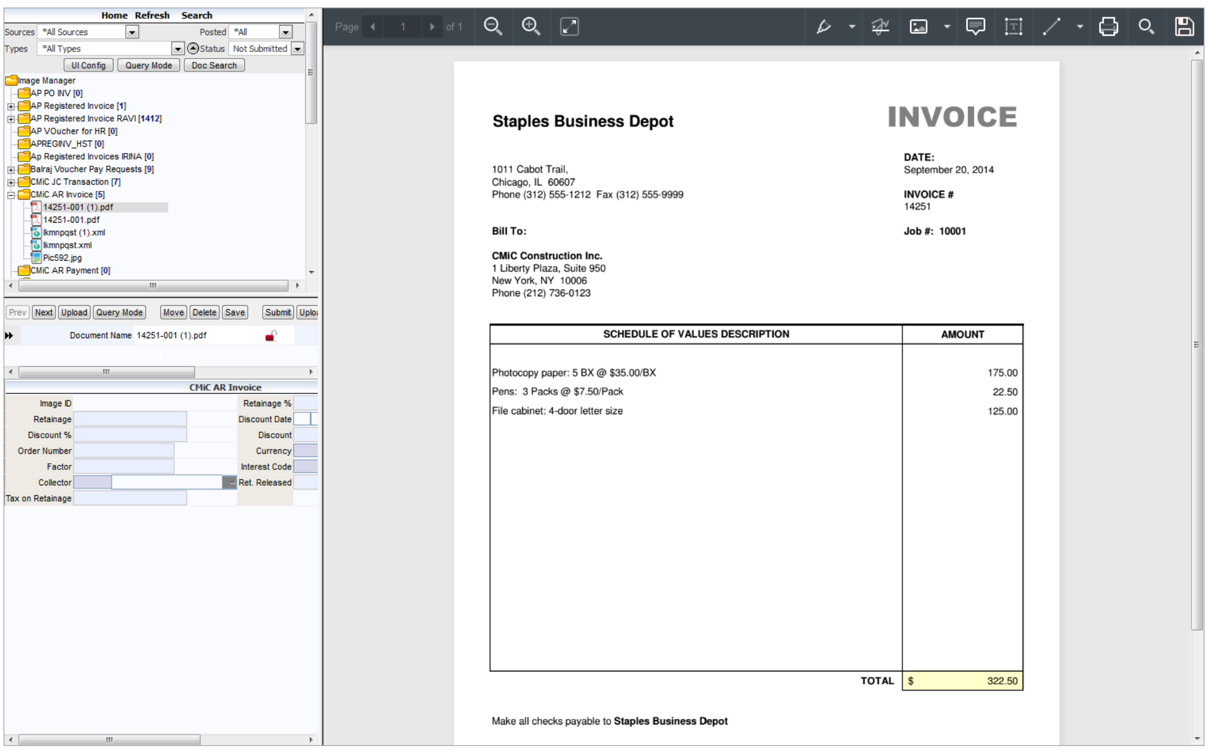


Image Manager; standard Treeview path: Imaging > Image Manager

The Image Manager screen is divided into three windows, the Image Manager Treeview, the Flysheet(s) window, and the Image Preview window. The Flysheet(s) window and the Image Preview window are synchronized with the Image Manager Treeview so that as an image is selected from the Treeview, both the Flysheet and Image Preview windows will display the related information. Each flysheet defined for the document type will be listed in the Flysheet window. To open the required flysheet, click the icon to the right of the title.

Image Manager Treeview

When the Image Manager screen first opens, only the image nodes that have any data will show. The Image Manager Treeview is used to navigate and select images to work with. The image tree is built from the document types the user has access to. Each node of the tree shows a count of how many images exist in each document type.

In order to limit the data being viewed, the user can elect to restrict the Source and Type fields by selecting the required values from the list of values. These fields automatically default to “All Sources” and “All Types”.

Type refers to the generic type of the document, for example “SC Pay Requests”, “Std. Invoices”, etc. While source most often refers to the location the document was scanned from, such as “Head Office”, “Atlanta Branch”, etc.

Flysheet Window

The Flysheet window displays a list of the available flysheets for the document type. If there is no flysheet assigned to the image type, then a message indicating that there are not any associated flysheets will display in the window.

A flysheet is a data entry screen designed to capture relevant information about the image. There may be one or more flysheets associated with an image. To open the required flysheet, click on the icon beside the flysheet name. In some cases, the fields may be mandatory and these are marked by a blue triangle next to the field. Date fields will always display a calendar icon next to the field and fields that have lookup values associated will have an arrow next to the field.

If the flysheet being entered is quite large, the Image Preview and Flysheet windows can be flipped by using the double arrows to the left of the Document Name field.

Image Preview Window

The Image Preview window will display the image in the viewer associated with the image type, for example an image may be a PDF file, a Word document, or a scanned image such as a JPEG or BMP file. Depending on the type of image and the viewer, the document may be modified and saved.

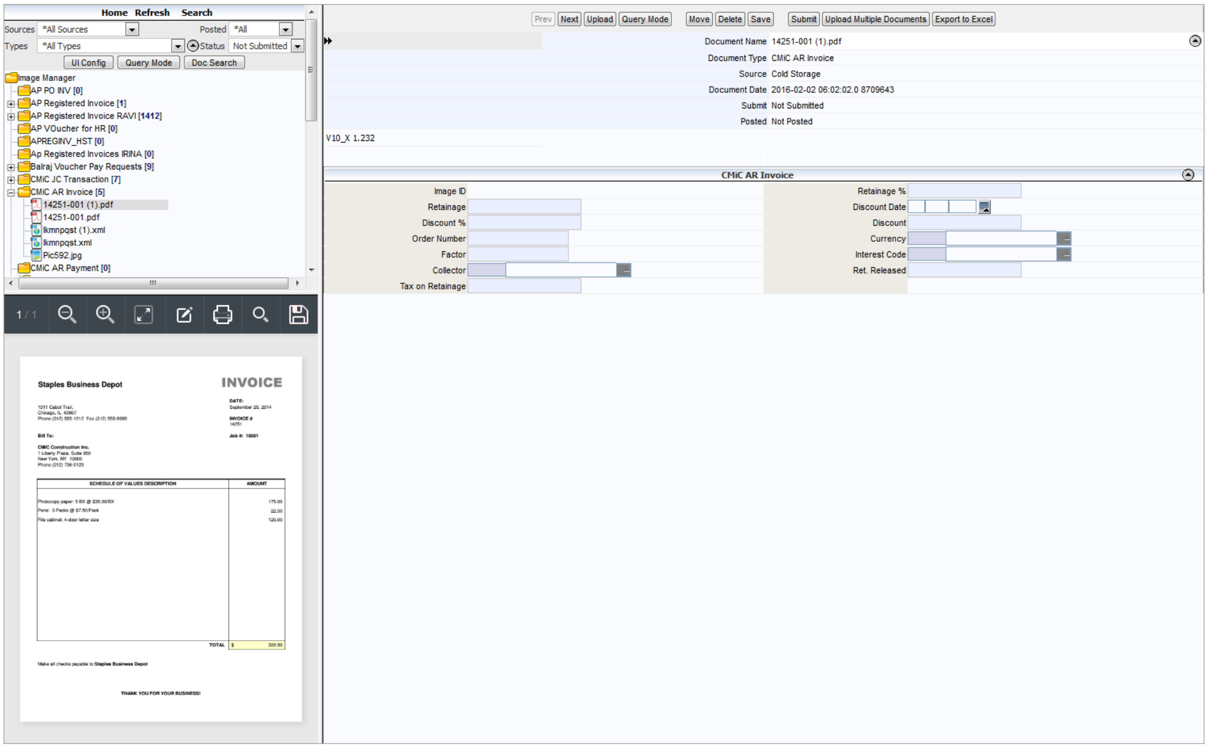
The Image Preview window can be configured by clicking on the [**UI Config**] button and setting the default of “Embedded” to “Separate Window”. In the Select a UI Configuration section, scroll down to the configuration required, and select the radio button beside the image that matches the mode needed, then use the [**Apply**] button to save this configuration. This setting is unique by user.

Opening An Image

- Open the Image Manager.
- Open the required document type.
- Move the cursor to the required image and click to open it.

The image will display in the Image Preview window to the right of the screen and any related flysheets will display in the Flysheet window. Alternatively, the user may have opted to have images display in a separate window.

Entering/Updating Flysheet Data



Editing Flysheet Data; standard Treeview path: Imaging > Image Manager

The top of the Flysheet window will always display the name, type, source, and date of the image for reference. Below this area any related flysheets will display. The flysheet(s) may already have data saved or default values displayed.

- Enter the information as required. A triangle before the field indicates that the field is required and the record cannot be saved without data being entered. A date field will always display with a calendar next to the field and fields that have lists of values available will display with an arrow at the end of the field.
- To make more room for the flysheet information, use the double arrows at the top of the flysheet area to swap the Image Preview and Flysheet windows, so that the flysheet information is displayed in the larger window.
- When finished save the changes by using the [**Save**] button.
- Move to the next record by returning to the Image Manager Treeview and selecting the next image, or by using the [**Next**] and [**Previous**] buttons at the top of the Flysheet window.

Importing Data by Uploading CSV File

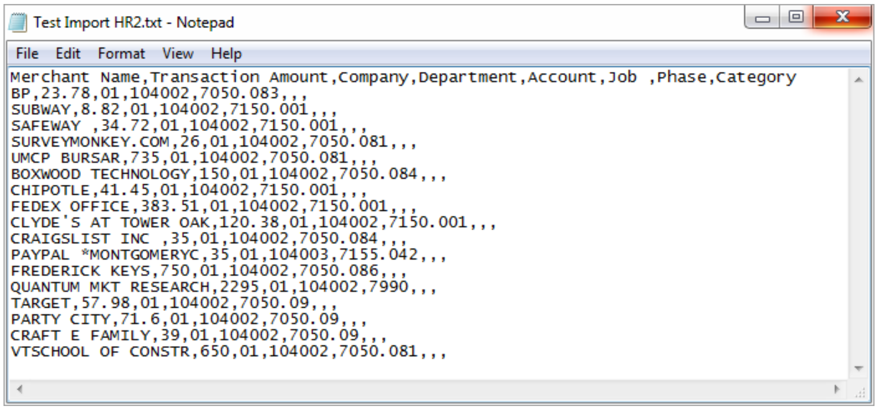
1. This feature is used to import additional details, such as credit card, into existing invoices.

   For example, to import additional details into a registered invoice in the system, complete the following steps:

   Convert details into a CSV file using the specific format provided by CMiC. Enough commas need to be included to allow for all fields – even the ones that are not used. Commas, including trailing commas, cannot be omitted. The first line must be exactly as shown in the screenshot below. It provides the headings used to find the values in the other lines.

On each subsequent line the user must specify:

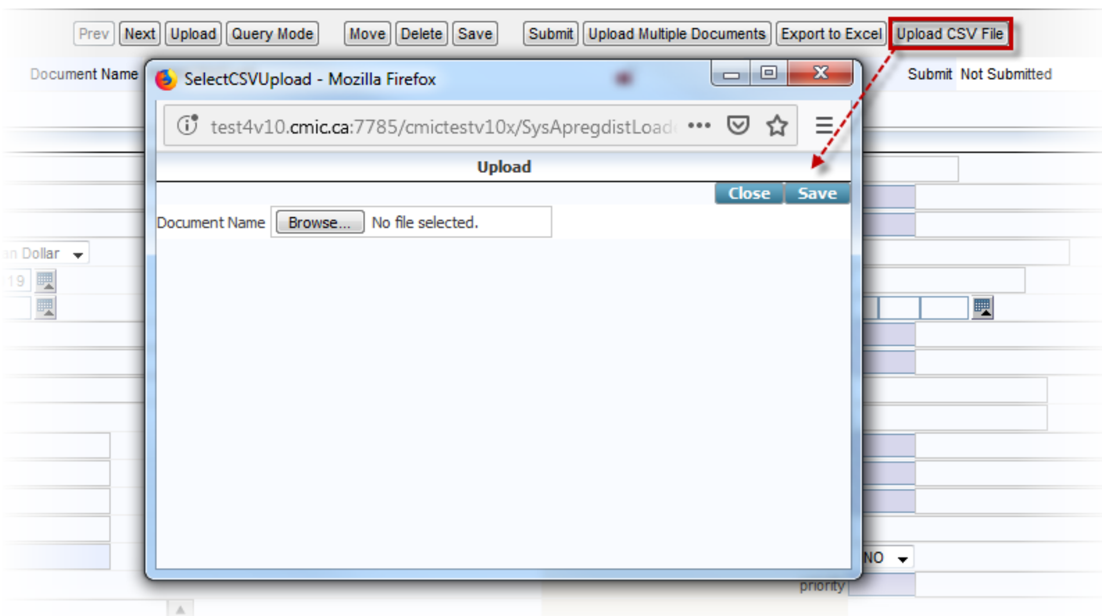
- Merchant Name, Transaction Amount, and Company are mandatory
- Either Department and Amount or Job, Phase, and Category must be specified




```
Merchant Name,Transaction Amount,Company,Department,Account,Job ,Phase,Category
BP,23.78,01,104002,7050.083,,,
SUBWAY,8.82,01,104002,7150.001,,,
SAFEWAY ,34.72,01,104002,7150.001,,,
SURVEYMONKEY.COM,26,01,104002,7050.081,,,
UMCP BURSAR,735,01,104002,7050.081,,,
BOXWOOD TECHNOLOGY,150,01,104002,7050.084,,,
CHIPOTLE,41.45,01,104002,7150.001,,,
FEDEX OFFICE,383.51,01,104002,7150.001,,,
CLYDE'S AT TOWER OAK,120.38,01,104002,7150.001,,,
CRAIGSLIST INC ,35,01,104002,7050.084,,,
PAYPAL *MONTGOMERYC,35,01,104003,7155.042,,,
FREDERICK KEYS,750,01,104002,7050.086,,,
QUANTUM MKT RESEARCH,2295,01,104002,7990,,,
TARGET,57.98,01,104002,7050.09,,,
PARTY CITY,71.6,01,104002,7050.09,,,
CRAFT E FAMILY,39,01,104002,7050.09,,,
VTSCHOOL OF CONSTR,650,01,104002,7050.081,,,
```

Example of CSV format

2. Make sure this file is accessible from the client PC, then open the registered invoice in the Image Manager screen. Click on the [**Upload CSV File**] button to launch the Upload pop-up window. Click on the [**Browse…**] button in the pop-up window to select the file to be imported.

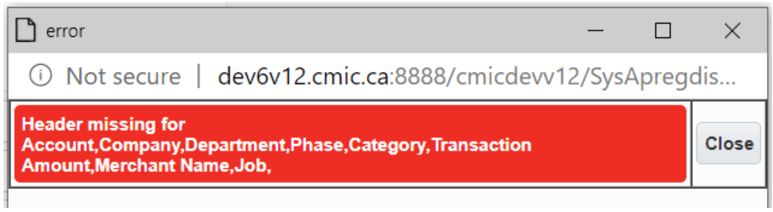


Pop-up window launched from the [Upload CSV File] button

3. Click [**Save**]. If processed successfully, the lines from the file will populate the invoice details. If any codes are incorrect, an error message will appear in the window and the process suspends at that line. The data can be fixed and the process can be restarted. It will pick up where it left off.

   Use the [**Close**] button to close the window and discontinue the import process.

   The following are some errors the user may see:



The header line was missing.

Company 01 does not exist, or the user does not have permission to access company 01.

NOTE: For fields in the Invoice Details section of the Image Manager screen such as the Job/Dept/Eqp. field, Cost Code/Account/Category field, or Category/Tran Code field, where multiple items share the same field, only one item should be specified in the CSV file. In addition, the import function only handles “G” and “J” transactions.

Submitting Completed Flysheets

Submitting a flysheet implies that all flysheet information for the image has been completed and that it is now ready to pass on to the next step. The next step is usually some sort of approval process and, in most cases, the eventual creation of a CMiC Enterprise object, such as an Accounts Payable invoice.

- Call up the required image and flysheet.

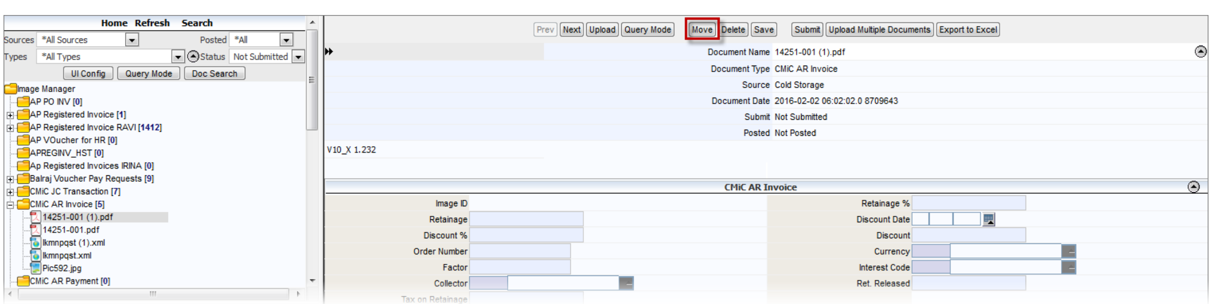
  OR

- After the [**Save**] on the current record has been completed, use the [**Submit**] button to start the workflow.

Once the submit has been issued, the system will not allow it to be reissued on the same record unless one or more workflow procedures were rejected.

Moving or Deleting Images

Sometimes a document may have registered against the wrong document type. To move the document to the correct type, press the [**Move**] button at the top of the flysheet page.



The move button will open up the top section of the screen where the correct document type can be selected.

- Select the required document name or check the 'All' checkbox to move all of the images.
- Select a new source if required.
- Select the new document type.
- Press [**Apply**] when done.

To delete an image, open the image from the Treeview, then press the [**Delete**] button on the associated flysheet page. Confirm the delete via the dialog box.

Searching for Images

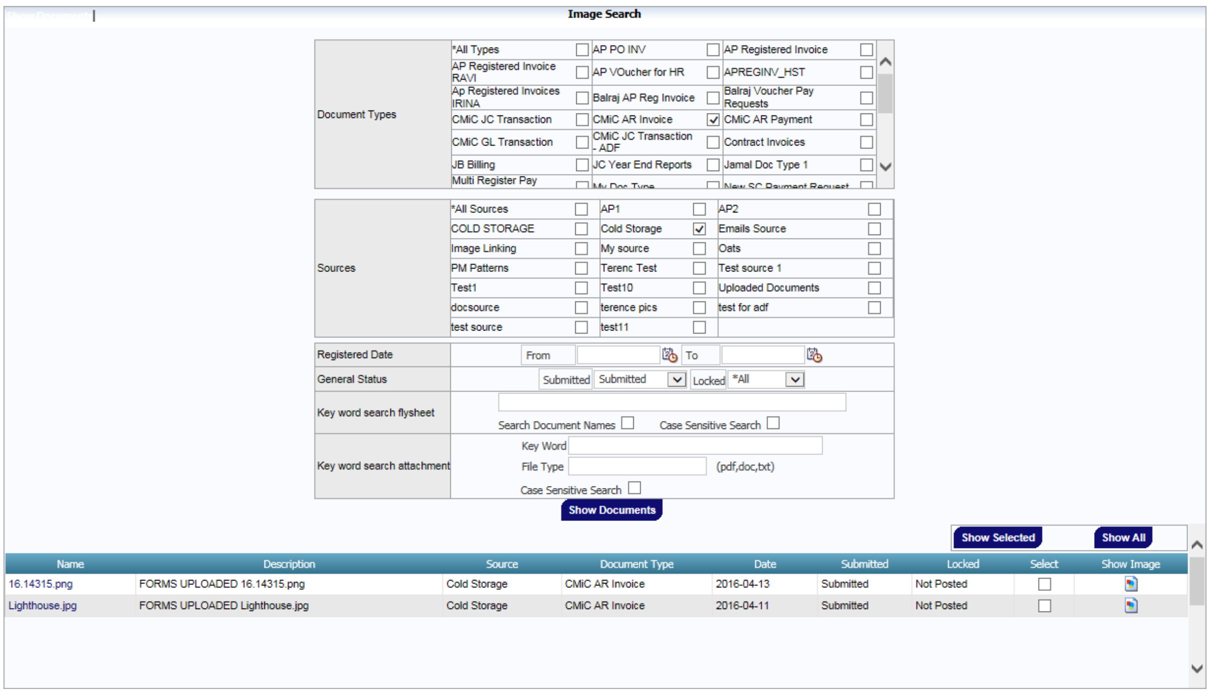


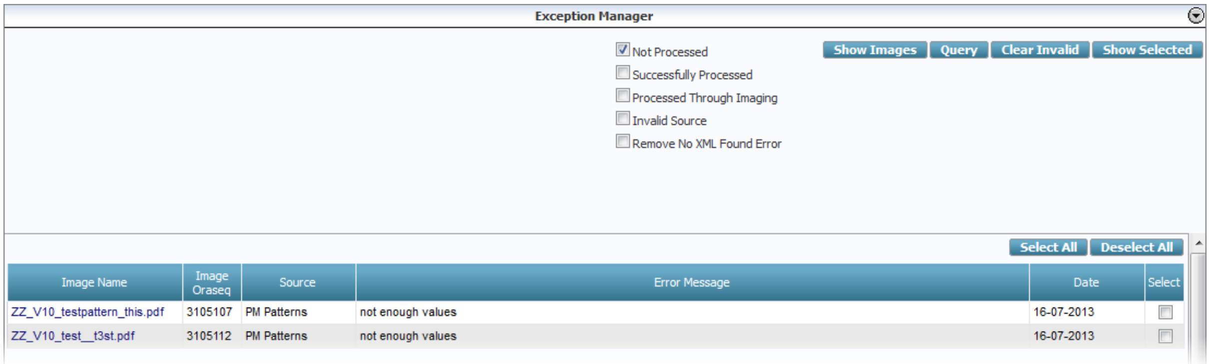
Image Search; standard Treeview path: Imaging > Image Search

The module allows searching for images by type, source, and key word. This search will return all images that match the criteria entered and allow the user to review the image or select the image to see the flysheet detail, as well as the image.

- From the Imaging Treeview, select Image Search to open a new search screen.
- The Document Type and Source fields will default to "All Types" and "All Sources". To change these values, uncheck the field and check any other types and sources as required.
- The Key Word Search field will search any numeric or text field, flysheet fields, and the actual image, if the image is a text type of document.

Any images that match will be displayed in a list below the search criteria. To view the image only, use the Show Image icon. This will open a new window displaying the image. If one or more of the records returned are to be viewed or edited in full then use the Select column to mark all the required records and, when complete, use the [**Show Selected**] button to view the records via the Image Manager screen. If all records returned are to be selected, there is a [**Show All**] button.

Exception Manager



Exception Manager; standard Treeview path: Imaging > Exception Manager

This screen maintains errors thrown in the process of registering XML files and related images. Users can view the image that was uploaded and its associated error message. They can also check the ‘Select’ box next to the images and click the [**Show Selected**] button to view the image in Image Manager.

Searching for Related Images

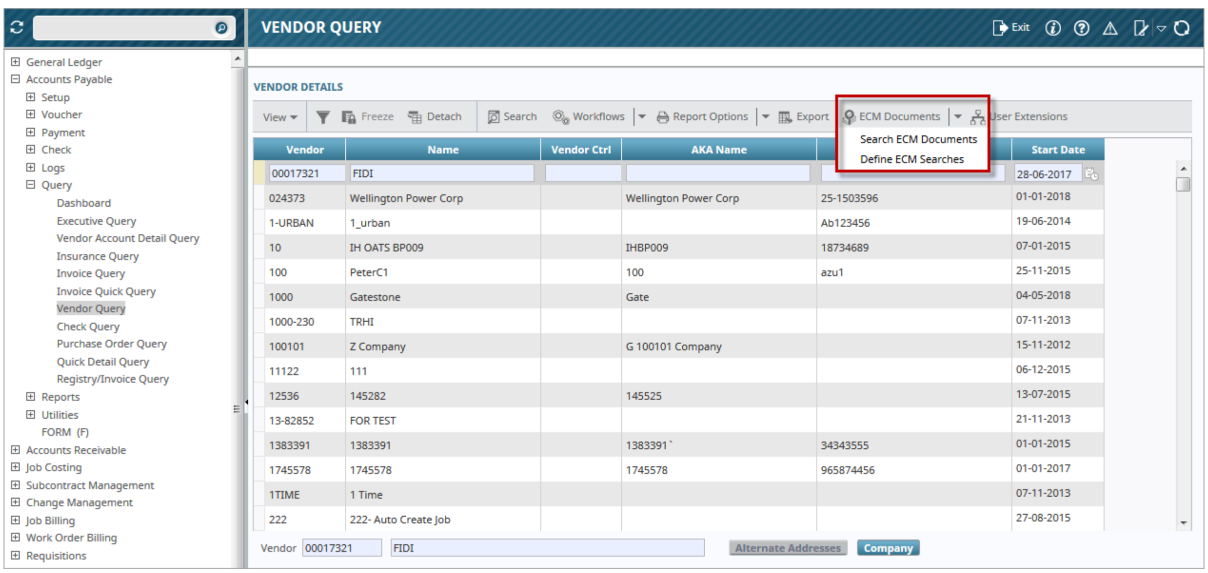
Overview – Related Image Search

Any module within the CMiC Enterprise system can be given the ability to query and display images according to the current data record. Each screen can have multiple searches defined.

Searches are user-defined, allowing for maximum flexibility and customization.

When the user is in a particular screen, for example the JC Transaction Detail screen, they can, if at least one image search has been defined, view the images with a relationship to the current record.

Defining the Search



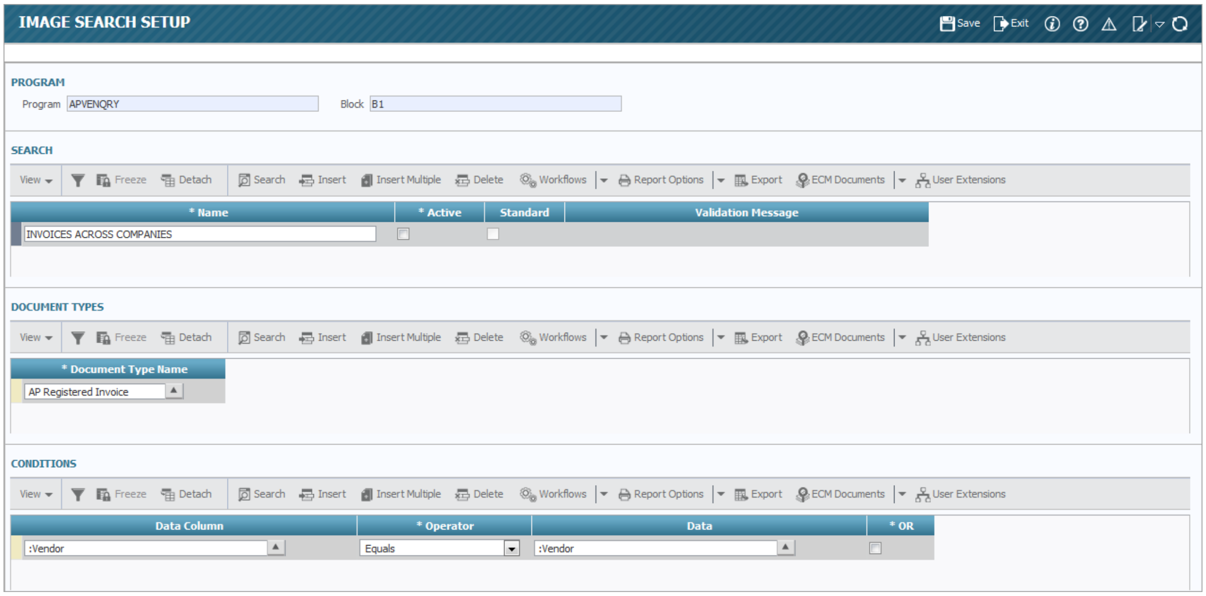
Pgm: APVENQRY – Vendor Query; standard Treeview path: Accounts Payable > Query > Vendor Query – [ECM Documents] button

Defining a search is done directly in the CMiC Enterprise screen that requires the search to be added. The ability to define the search has been added to the Utility Menu of each screen.

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.

- Open the screen that the image search is to be defined for.
- Move to the section of the screen that the search is to be functional on. This may require entering or querying data.
- Click the [**ECM Documents**] button and select “Define ECM Searches”.

This is the screen that is used to define/create the image searches required for the screen. The system allows for more than one image search per screen.



Pgm: SYSSRCH – Image Search Setup; standard Treeview path: Accounts Payable > Query > Vendor Query – [ECM Documents] button – Define ECM Searches option

The screen is split into four main sections.

Program

This will display the program name and block that the search is being defined for.

Search

This is the name of the search being defined.

Document Type

This is the document type(s) included in the search.

Conditions

This is the area that contains the where clause for the search.

Step 1: **Naming the Search**

The system requires that each search defined be given a unique name. This is the name that the end user will see when they are asked to select a search if more than one is defined. This name need only be unique within the screen/section combination.

The system will automatically mark the search as active when a new search is created. If this field is marked as inactive, users will not be able to see this search when in the screen.

Step 2: **Applying Document Types**

Each search can have multiple document types included. For example, there may be multiple types of document associated with a job code, contracts, invoices, insurance certificates, etc.

Only one document type can be entered at a time, as the conditions must be applied when the document type is entered. Select the document type from the list of values then move on to step 3.

Step 3: **Defining the Search Conditions**

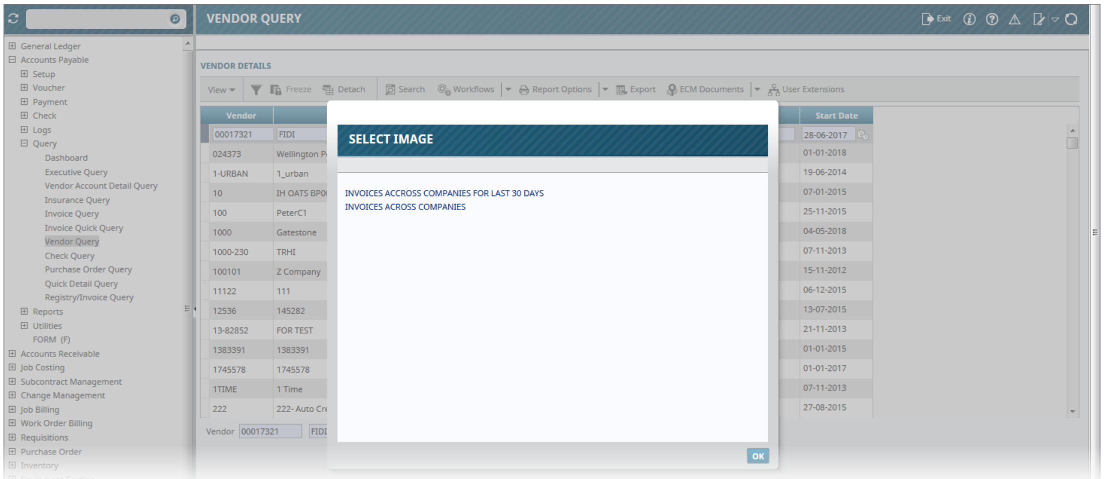
In this step, the user creates the required where statements to return the expected data. An and between each definition line is assumed unless the `OR` checkbox for the line has been checked. In order for a line to be valid, it must contain data in all three columns, data column, operator, and data.

Use the list of values pop-up window to populate the Data Column and Data fields with the appropriate Block Field source.

The Operator field can be one of any of the values in the list which are mostly standard math operators, such as equal, greater than, less than, etc. See the table below for details on each operator and its function.

Operator	Function
Equals (=)	Column A must be an exact match to column B.
Not Equal (!=)	Column A cannot match column B.
Greater Than (>)	Column A is a larger value than column B (using either a numeric or text ordering depending on the type of field).
Less Than (<)	Column A is a smaller value than column B (using either a numeric or text ordering depending on the type of field).
Greater Than or Equals (=>)	Column A is a larger value than or is an exact match to column B (using either a numeric or text ordering depending on the type of field).
Less Than or Equals (=<)	Column A is a smaller value than or is an exact match to column B (using either a numeric or text ordering depending on the type of field).
Is Null	Column A has no value.
Is Not Null	Column A has some value.
Contains	Column A matches a literal that automatically is wrapped with “%” on either end, or the value of column B that is automatically wrapped with %'s on either end.
Ends With	Column A matches a literal with a “%” at the beginning or the value of column B with a “%” at the beginning.
Starts With	Column A matches a literal with a % on the end or the value of column B with a % on the end.
In	Column A matches one of a fixed list of values. This field can only be used with a literal string.
Not In	Column A does not match one of a fixed list of values. This field can only be used with a literal string.
Like	Column A matches a literal that uses standard oracle pattern matching of “%” or “_”.
Not Like	Column A does not match a literal that uses standard oracle pattern matching of “%” or “_”.

Using the Search Facility



Pgm: APVENQRY – Vendor Query; standard Treeview path: Accounts Payable > Query > Vendor Query – [ECM Documents] button – Search ECM Documents option

Once a search has been defined for the screen/section combination, using it is a very simple process.

- Open the screen.
- Query or enter data as required.
- Make sure the current record contains the key information for the search, for example if the user wants to view job related information, the current record must contain the job code.
- Click on the [**ECM Documents**] button and select the “Search ECM Documents” option.

If there has not been a search defined for the screen, then the system will give a message saying “No Searches are defined. Search Cancelled”.

If more than one search has been defined for the screen, the system will display a list of available searches, just select the search required then press the [**Search**] button.

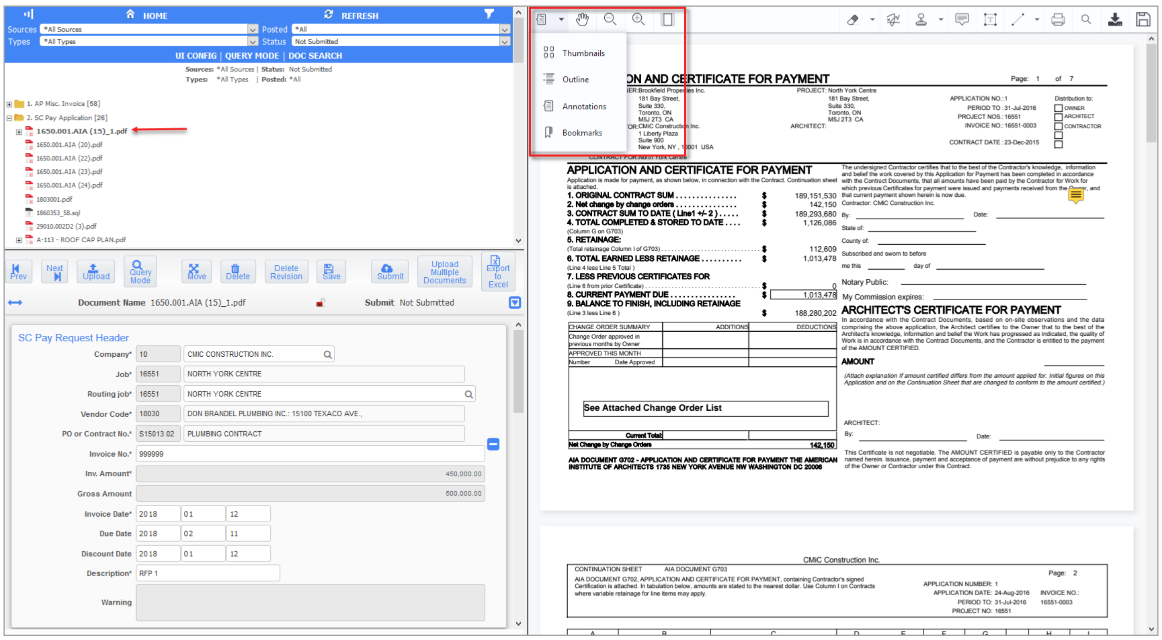
NOTE: If no image search link(s) appear in the Select Image pop-up window, ensure that all flysheets used by the search are set as active in the Flysheet Definition screen; otherwise, the image search links will not be displayed.

Once the search is completed, the system will open a new window displaying in the Image Manager Treeview all of the documents found that match the search criteria. If there is only one match, the system will automatically open the document, if there are more than one the user must select which document to look at from the Treeview.

Now that the Image Manager screen is open, image flysheets can be updated and submitted just as if the Image screen was directly opened rather than accessing it from a screen. The only restriction on usage is defined by the user’s own corporate requirements. Please refer to the *Working with Images* section of this guide for more information.

Using CMiC Web Viewer in Image Manager

Viewing a PDF



Access Image Manager from the Imaging menu in the standard CMiC Treeview and select a PDF to view from the Image Manager Treeview, as shown in the screenshot above. The CMiC Web Viewer will load on the right pane where users can view the PDF, add annotations or bookmarks, print or download the PDF, or save as a new revision.

View the Thumbnails, Outline, Annotations, or Bookmarks Pane

Click on the down arrow and select an option from the drop-down list to view the Thumbnails, Outline, Annotations, or Bookmarks pane. This allows users to quickly navigate through the document by selecting a specific thumbnail, outline, annotation, or bookmark, if available on the document.

Pan Mode 

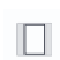
Select this option, click anywhere in the document, and move the mouse while holding down the left mouse button. The visible portion of the document will change according to the movement of the mouse until the button is released.

Zoom Out 

Select this option to zoom out.

Zoom in 

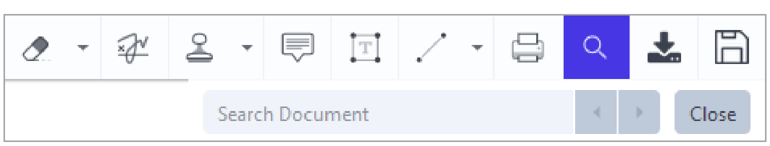
Select this option to zoom in.

Fit Page, Fit Width 

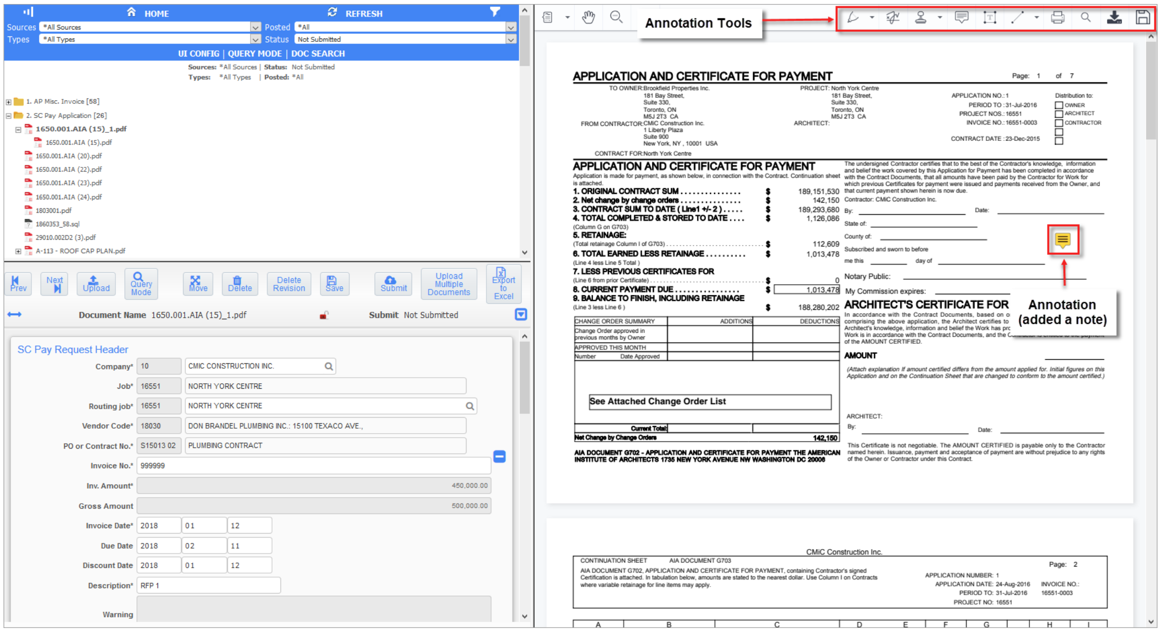
Click this option to either fit the entire page of the document on the pane or fit the entire width of the document on the pane.

Search Document 

Select this option to open the Search field, shown below. Enter text to search for in the Search box and CMiC Web Viewer will automatically highlight text in the document that matches the string of text entered in the Search box. To cancel the search, click the [**Close**] button.



Marking Up a PDF

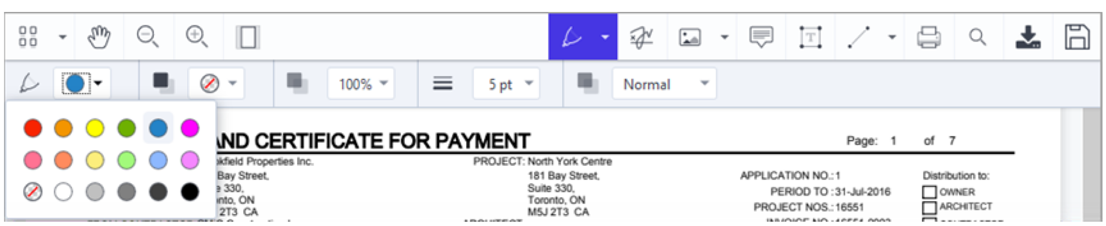


The following details the options available in the Annotations toolbar.

Freehand Pen 

Used to draw anywhere on a document.

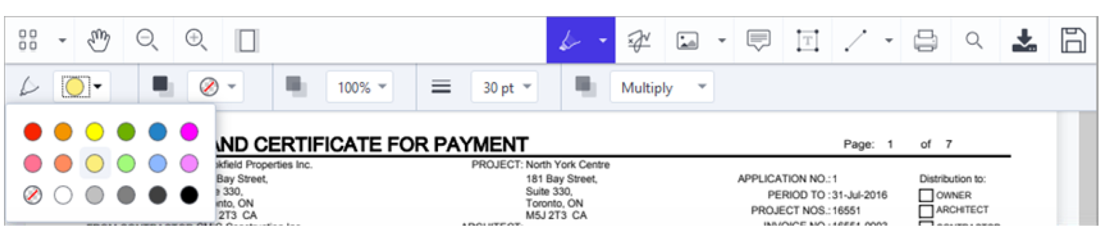
Once this option is clicked, a toolbar will appear, as shown below, where the color, opacity, and thickness for the line is set.



Freehand Highlighter 

Used to freehand highlight anything on a document.

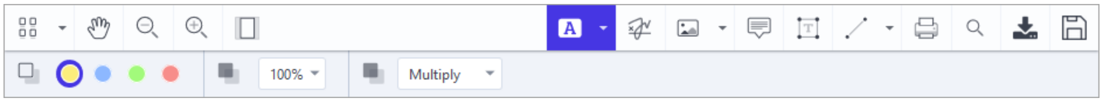
Once this option is clicked, a toolbar will appear, as shown below, where the color, opacity, and thickness for the line is set.



Highlighter 

Select the relevant text with the cursor to highlight it.

The color, opacity, and blend mode can be adjusted using the toolbar shown below.



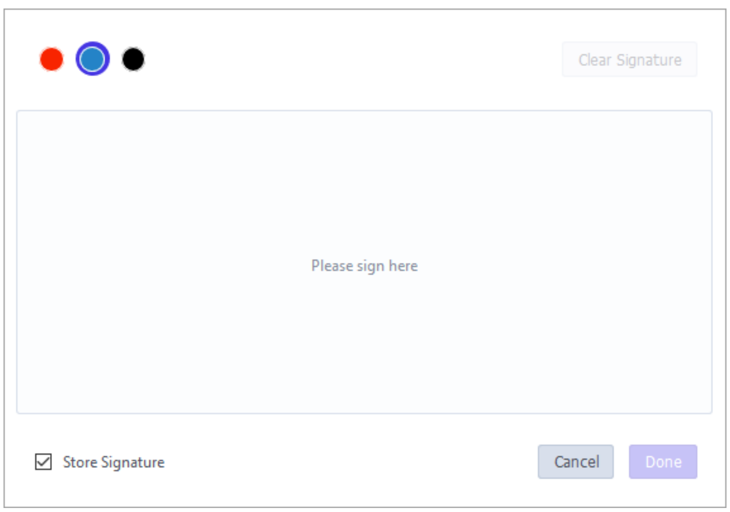
Eraser 

Used to erase any marks made using the Freehand Draw and Freehand Highlighter options.

The line size can be adjusted using the toolbar shown below.

Sign 

This option will open the Signature pop-up window where the user can draw and store their signature. Once [**Done**] is clicked, the signature will appear on the PDF and can be moved, resized, edited, or deleted.



Image 

Clicking this option opens the File Explorer window where users can browse and select an image saved on the desktop and upload it to the PDF. Once an image has been added to the PDF, it can be resized, moved, or deleted.

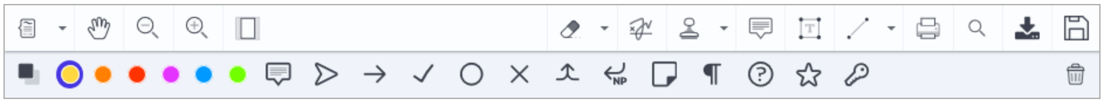
Stamp 

Clicking this option opens the Stamp pop-up window where users can either select an existing stamp or upload a custom stamp to be added to the PDF. Once a stamp has been added to the PDF, it can be resized, moved, or deleted.

Note 

Used to add a note annotation. To do so, select this option, then tap where the note is to be added.

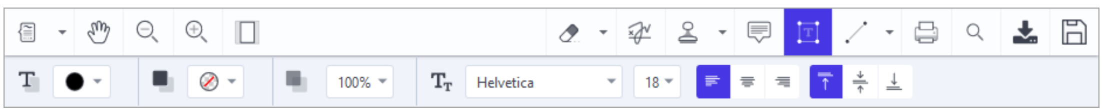
In the pop-up window for the note, use the toolbar, shown below, to change the shape and color of the note.



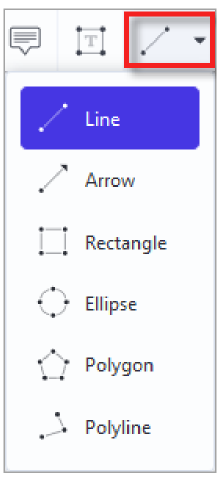
Text 

This option is used to add a text annotation. To do so, select this option, then click the spot where the text is to be added.

The format, color, and opacity for the text can be adjusted using the toolbar shown below.

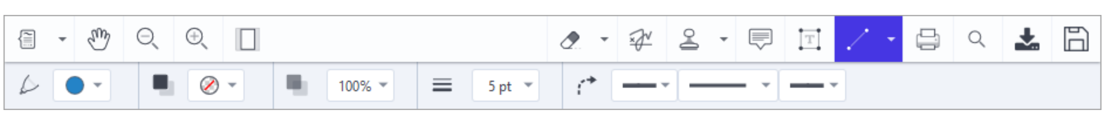


Arrows, Lines, and Shapes

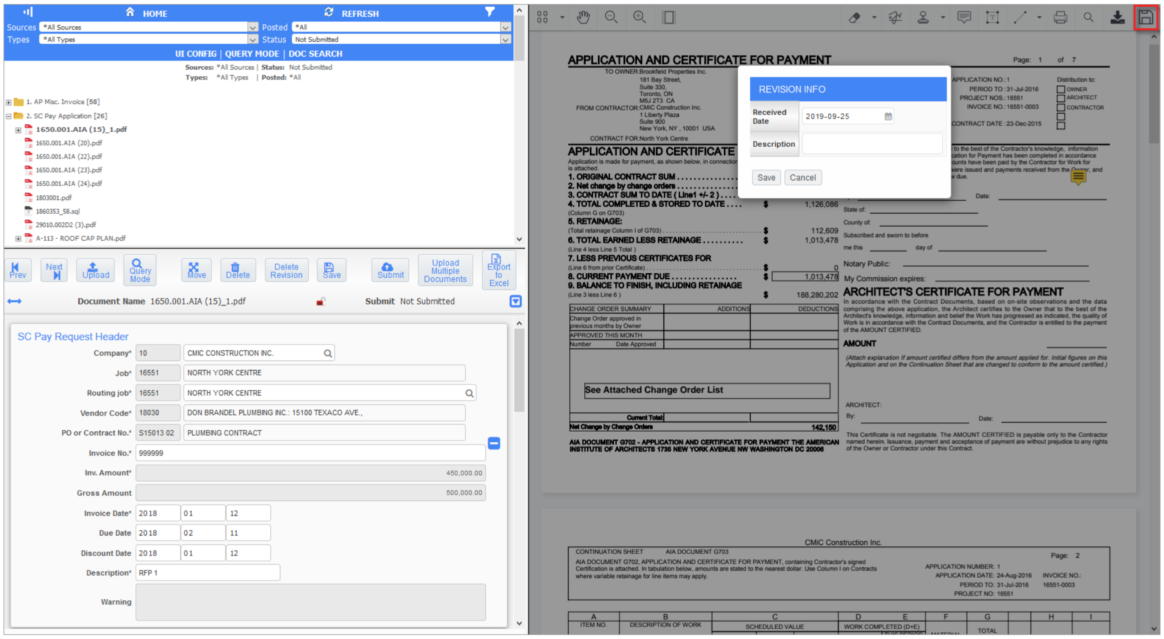


Click the down arrow to display the drop-down list and select an option to add lines, arrows, or shapes to the document. Once an option is selected, click and hold a spot on the document and drag to create the line, arrow, or shape.

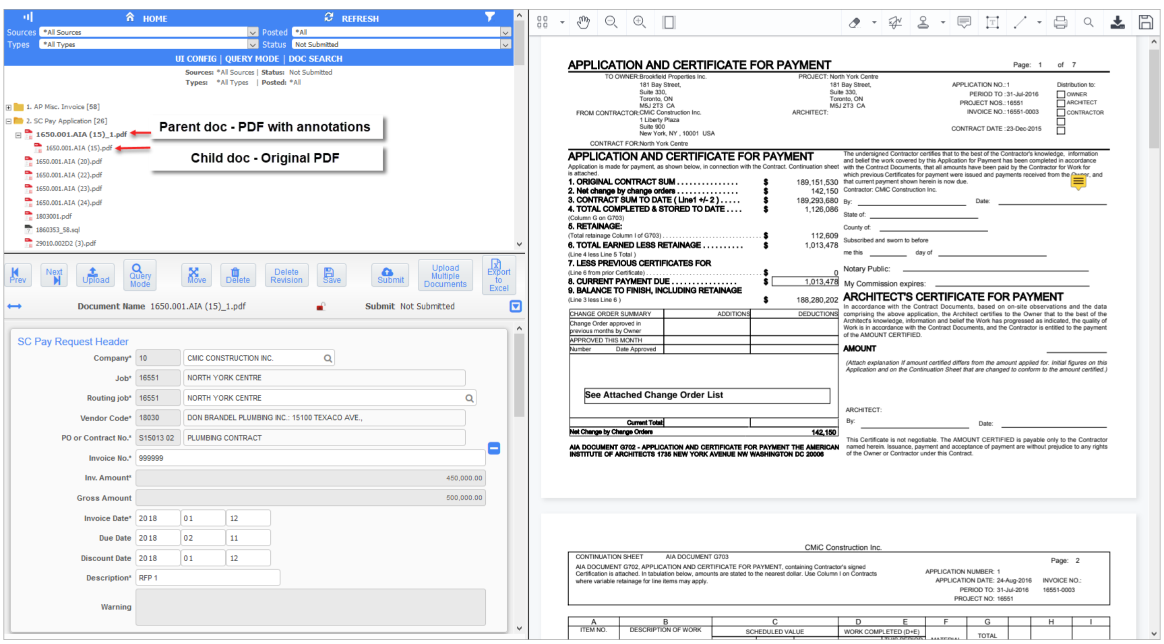
The color, opacity, line thickness, line style, and other properties for this annotation can be adjusted using the toolbar shown below.



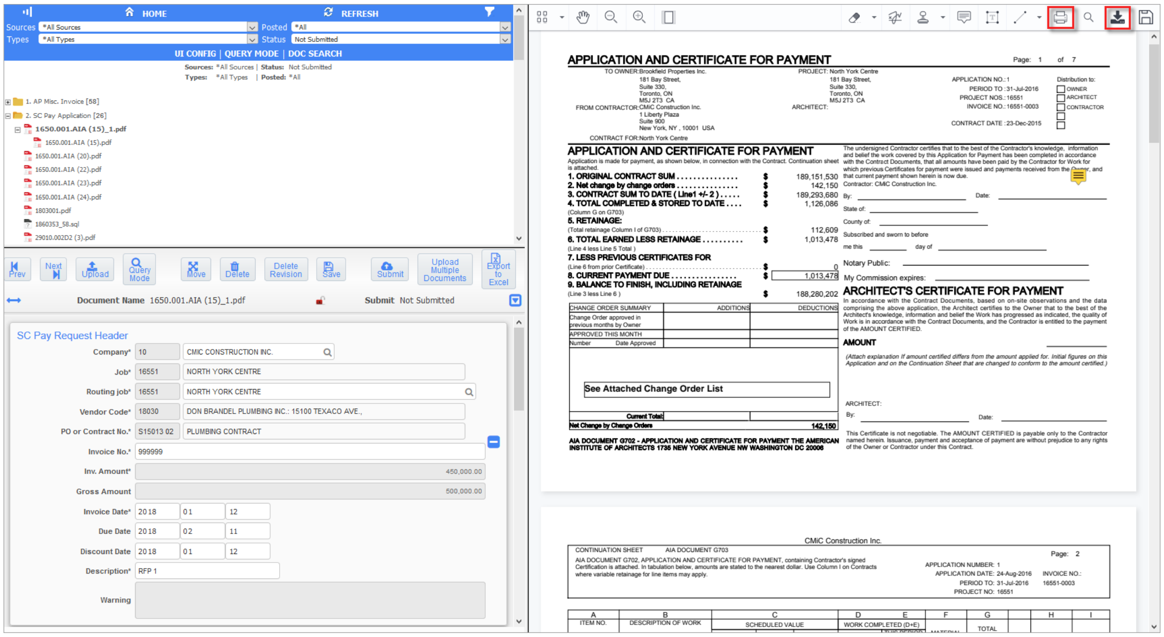
Saving a Revised PDF



Use the Create Revision icon, shown above, to open the Revision Info pop-up window. Enter the revised date and description and click [**Save**] to save as a new revision. The original document will appear as the child in the Treeview and the parent will be the document containing the new revision, as shown in the screenshot below.

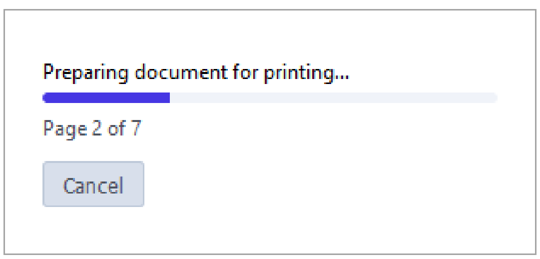


Printing and Downloading a PDF



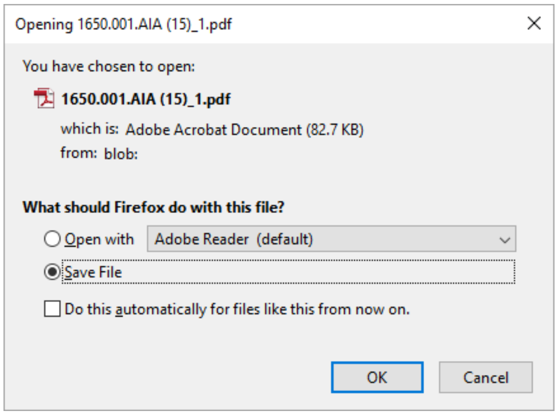
Print 

This option prepares the document for printing, as shown in the screenshot below. Then opens the Print pop-up window for the user to select a printer and print.



Download PDF 

This option opens a pop-up window, shown below, and allows the user to either open or save the PDF directly on their desktop.



Installing the PSPDF License

NOTE: This procedure is only applicable to single-tenant environments (e.g. non-Cloud).

CMiC PSPDF – Running the License Script

1. Modify the script add_cmic_pspdf_licence_info.sql (under d:\cm\v12\<ENV>\sql or d:\cm\v10\<ENV>\sql) by copying the license key for <environment> and pasting it in the area where the license key is bounded by the single quotes as shown below (replace the existing value):

2. Log into the database for <environment> and run the script.

3. Enter the Tenant Code (use DA for Enterprise user) as the prompt will instruct, or the appropriate tenant code if applicable.

4. The script should run to completion successfully.

Imaging Setup

Overview – Basic Concepts

To understand how the Image Manager works, some basic concepts/terminology must be understood.

Document

The Image Manager actually manages any kind of machine-readable document, not just images. Thus, we refer to documents rather than images within the module. These documents can be images, word processor files, spreadsheets, text files, etc.

Document Type

Custom document types can be defined based on the content (as opposed to the format) of the document. A JPEG image may be an AP invoice, a contract, or a site photo. The document type would be AP invoice, contract, or site photo, not JPEG. Conversely a contract may be a JPEG image, PDF file, or Word file. Regardless of the format, the document type is still contract.

Source

The source of a document determines where users place new documents to be brought into (registered in) the Imaging module. The sources can be optionally associated with document types in order that the document registration program can assign the appropriate document type automatically based on the directory into which the document is initially placed. When the registration program has processed a document, it moves it into another directory. Both of these directories (called the source and processed directories) are determined by the combination of the source (usually a physical location) and the document type. The source directory must be unique for every combination of the source and document type, although the processed directories may be shared. However, by default the processed directories are also unique.

Flysheet

A flysheet is a user-defined record structure used to record information – especially indexing information – about documents. Before a flysheet can be used to do this, it must be associated with a document type. Several flysheets may be associated with one document type – for example, master and detail flysheets for invoices. One flysheet may also be associated with several document types.

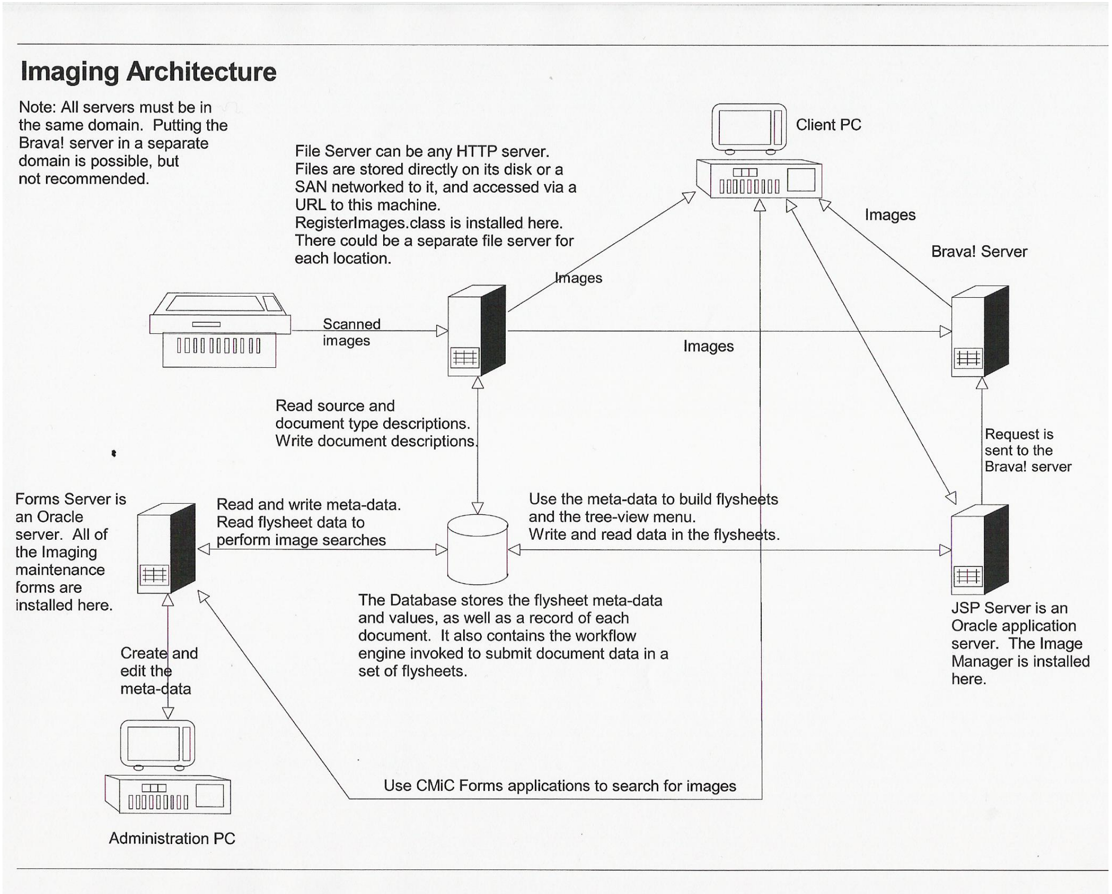
Security

All of the above objects can be hidden from individual users by means of role-based access privileges. Both users and objects are assigned to one or more roles. Users can see only those objects for which they share some role. These roles are over and above the standard CMiC Enterprise Security Roles, as these roles restrict data, not access to screens.

Active vs. Inactive Objects

Document types, sources, and flysheets can be hidden even from users with the appropriate security by making them inactive. This is done by clearing a checkbox on the appropriate maintenance screen.

Architecture



Pre-requisites to Setup

The setup for imaging is done within the CMiC Enterprise system. On the main menu, there is an option titled “Integration”. Under this main menu there are two options “Imaging” and “Workflow”. This section details the Imaging module.

Before setting up the Imaging module, information must be known about other modules that are installed, and info regarding the network or IAS file server.

The following needs to be known:

- The corporate workflow name(s) for the type of image being defined.
- The corporate image scanned and image processed directly names for the type of image being defined.
- The data on flysheets that needs to be collected.
- The integration of the flysheet data to a CMiC object.

Standard Objects in Imaging

The CMiC Imaging module is delivered with 1 security group, 1 source, and 28 standard document types (along with their associated flysheets) predefined. However, the source, document types, and flysheets are all inactive. To use one of these objects, do the following:

1. Make the user a member of the “Standard” security group. Note that even if the user wants to put the object into another security group, they must first do this in order to activate the object. After it has been activated, they can assign it to another security group and remove it from this one.
2. Display inactive document types on the Document Types screen and set the desired standard document types to active by checking the ‘Active’ box.
3. Display inactive sources on the Sources screen and set the standard source to active.
4. Open the Document Type pop-up window on the Sources screen and select the now active document types as associated with this source.
5. On the Flysheet screen display inactive flysheets and set the desired flysheets to active. Then open the Document Type Association pop-up window and set the association to the now active document types to active.
6. Click on the [**Create Structure**] button for each of the newly activated flysheets to create the data tables for them. If this results in an error message saying that an LOV has not had its parameters defined, call up the Fields pop-up window and click on the [**LOV Properties**] buttons for all fields having LOVs. Then try again.
7. At this point you should be able to use these flysheets and document types. Test this out by copying a document to the source directory on the file server (i.e. the full source path on the Source screen) and waiting for the registration program to move it to the processed directory. Then invoke the Image Manager and look for the document type in the Treeview. Expand this document type and the file name should be seen. Click on the file name and the Image Manager should display the document on the right and the (collapsed) flysheets on the lower left.

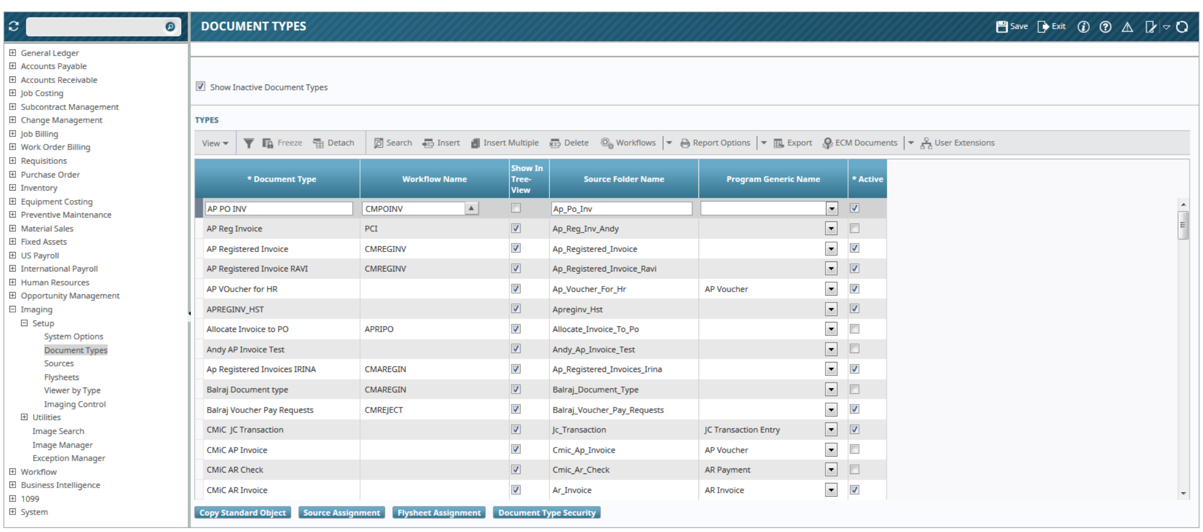
Standard Object List

Document Type Description	Flysheet Name/ Description	Display Order
Std AP Invoice	Std AP Invoice Header	1
Std AP Invoice	Std AP Invoice Detail	2
Std AP Reg Invoice	Std Reg AP Invoice Header	1
Std AP Reg Invoice	Std Reg AP Invoice Detail	2
Std AR Check	Std AR Check Header	1
Std AR Check	Std AR Check Detail	2
Std AR Invoice	Std AR Invoice Header	1
Std AR Invoice	Std AR Invoice Detail	2
Std Check Reconciliation	Std AP Check Reconciliation Header	1
Std Check Reconciliation	Std AP Check Reconciliation Detail	2
Std Equipment Timecard	Std Equipment Timecard Header	1
Std Equipment Timecard	Std Equipment Timecard Detail	2
Std GL Transaction	Std GL Transaction Header	1
Std GL Transaction	Std GL Transaction Detail	2
Std HR Applicant	Std HR Applicant	1
Std JB Billing Contract	Std JB Billing Contract	1
Std JB Billing Invoice	Std JB Billing Invoice	1
Std JC Transaction	Std JC Transaction Header	1
Std JC Transaction	Std JC Transaction Detail	2
Std PM Document Log	Std PM Document Log	1
Std PM Journal	Std PM Journal Header	1
Std PM Owner Change Order	Std PM Owner Change Header	1
Std PM Owner Change Order	Std PM Owner Change Detail	2
Std PM Potential Change	Std PM Potential Change Header	1
Std PM Potential Change	Std PM Potential Change Detail	2

Document Type Description	Flysheet Name/ Description	Display Order
Std PM Project Bid	Std PM Project Bid Header	1
Std PM Project Bid	Std PM Project Bid Detail	2
Std PM Punch List	Std PM Punch List Header	1
Std PM Punch List	Std PM Punch List Detail	2
Std PM Submittal	Std PM Submittal Header	1
Std PM Vendor Bid	Std PM Vendor Bid Header	1
Std PM Vendor Bid	Std PM Vendor Bid Detail	2
Std Project	Std Project Header	1
Std Project	Std Project Contacts	2
Std Project RFI	Std PM Request for Information	1
Std Purchase Order	Std PO Header	1
Std Purchase Order	Std PO Detail	2
Std PY Employee	Std PY Employee	1
Std PY Employee Update	Std PY Employee Update Header	1
Std PY Employee Update	Std PY Employee Update Detail	2
Std PY Timesheet	Std PY Timesheet Header	1
Std PY Timesheet	Std PY Timesheet Detail	2
Std SC Payment Request	Std SC Payment Request Header	1
Std SC Payment Request	Std SC Payment Request Detail	2
Std Subcontract	Std Subcontract Header	1
Std Subcontract	Std Subcontract Detail	2
Std Subcontractor RFI	Std SC Request for Information	1

Defining the Document Types

This step is very simple, a document type and the workflow name associated with the type needs to be defined. A document type is an image type. For example, it could be an AP invoice, a subcontract pay request, or a legal document such as a contract. Document types are unlimited they don't even have to relate to a CMiC object. CMiC provides pre-defined document types for most of the key objects within the Enterprise system. These pre-defined objects are all prefixed with “Std” and will always be displayed with view only attributes. These objects cannot be modified at all. The standard object must be copied and then the copied object must be adjusted.



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

Copy a Standard Document

Select the 'Show Inactive Document Types' checkbox then query the details. A button called [**Copy Standard Object]** will display at the bottom of the screen. Move the cursor to the required object then press the [**Copy Standard Object**] button. This will display a dialog box asking the user to confirm the copy. When confirmed the system will make a copy to the object replacing the prefix "Std" with "New". The user may then change the name and other related items.

When copying a standard CMiC object, all related information such as flysheet tables, fields, etc., are also copied.

Document Type

Enter a document type. This must be a unique document name, it cannot be duplicated. This is the name that will be used in further setup of the Imaging module and will be seen by the users when they enter flysheet data.

Uncategorized Document **-** This document type is system-defined and not updateable. This type represents all documents that have come into the system, but have not yet been assigned a document type.

Workflow Name

Enter the name of the workflow procedure that has been defined in CMiC Workflow to handle this type of document. This is the internal name of an item type in the Workflow module.

If this document type is to be eventually imported into CMiC tables, this workflow package must contain the import workflow procedure.

If the document type does not require workflow or the CMiC Workflow module is not being used, this field can be left blank. There is not a list of values available from the Workflow module so this type of data will have to be known beforehand. The Workflow Name field may be changed at any point in time and the same workflow may be used for multiple document types.

This is the workflow package that will be invoked when the user presses the [**Submit**] button on a related flysheet.

Master Flysheet For CMIC Object

If this document type has master/detail flysheets associated with it, this identifies which flysheet is the master flysheet. This is an optional field.

Show In Treeview – Checkbox

The 'Show In Treeview' checkbox is used to control whether or not the document type is visible in the Treeview in Image Manager.

Source Folder Name

This is the name of the lowest level folder used by default as the source directory for new documents of this type. It will be concatenated with a root path determined by the source to obtain the full path. By default, this name is derived from the description of the document type, but it can be changed.

Program Generic Name

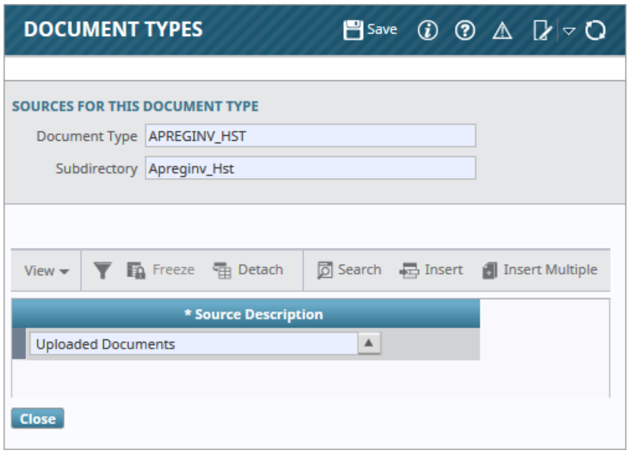
Select a screen in the Program Generic Name drop-down list to associate the screen with the document type. This is used in conjunction with the "Upload ECM Document" option in the [**ECM Documents**] button on the Block Toolbar to specify the document type that uploaded documents are saved in.

Active – Checkbox

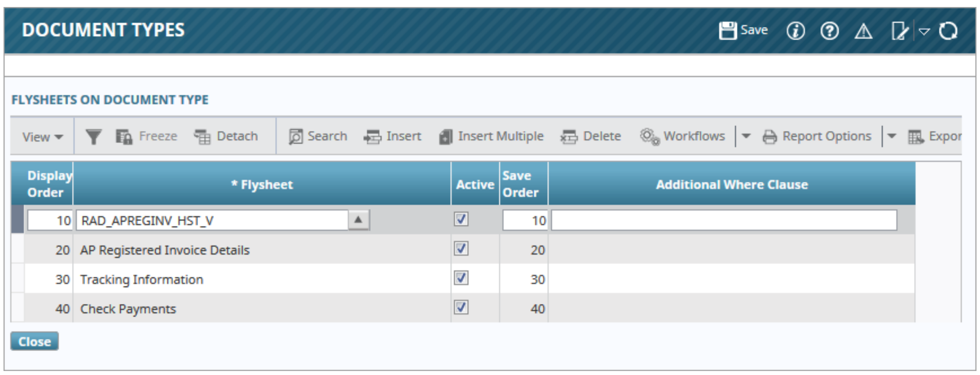
If the box is checked, the document type is active. If a document type is marked as inactive it will not be able to be viewed in any of the other setup screens, nor in the Flysheets screen. When creating a new document type make sure this field is checked.

The [**Document Type Security**] button allows the user to apply the user and group security to the type as the type is created. Security can also be applied from the Utilities menu.

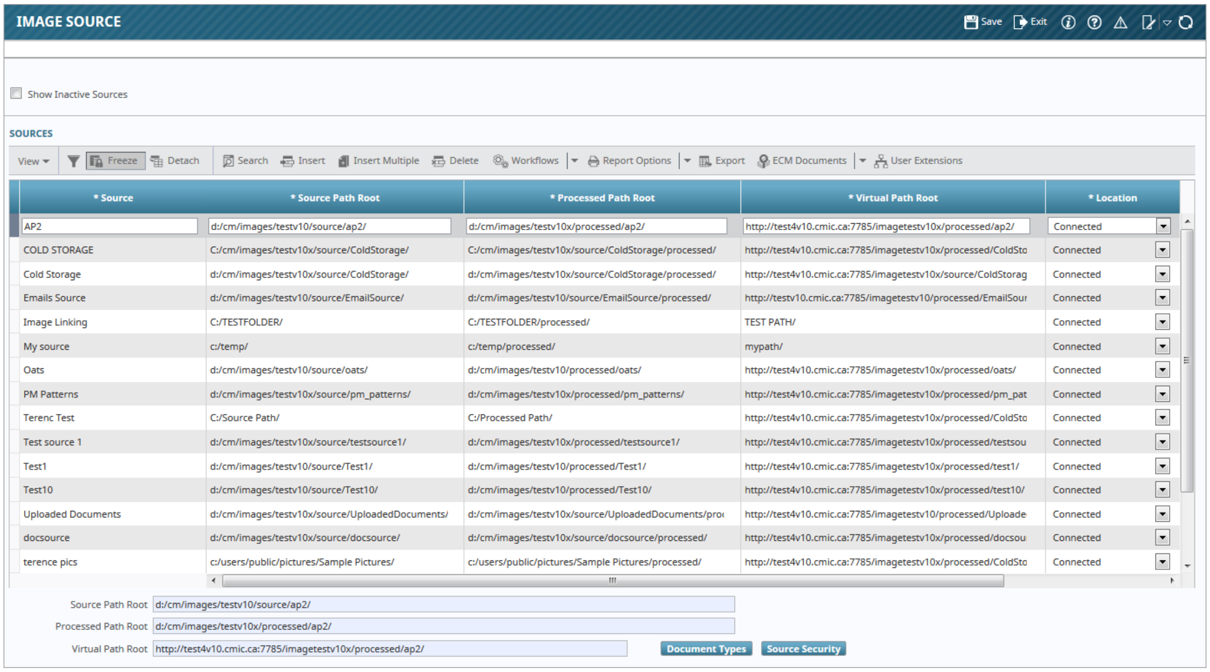
The [**Source Assignment**] button opens a window that allows the user to apply already defined sources to a document type.



The [**Flysheet Assignment**] button opens a window that allows the user to apply already defined flysheets to the document type.



Creating Image Sources



Pgm: IMGSRC – Image Source; standard Treeview path: Imaging > Setup > Sources

Image sources not only define root scanned into directories, but also root processed directories and their associated URL. Each source can have multiple document types associated. Each document type will automatically have its own subdirectories under the source and processed root directories.

Sources usually represent locations, for example the user may have invoice images entered in head office as well as different job sites. Sources allow the user to segregate the source directory and processed directories, making it easier when selecting images for flysheeting.

By using the [**Source Security**] button the user can apply security as they set up sources, or they can apply security afterwards by directly accessing the security functions from the Imaging Utilities submenu. This button can also be used to review the source security on already defined sources.

Source

Enter a source name. The source name is usually a location name or department name of where images will be scanned. This is a free form field but must be unique.

Source Path Root

This is the root directory path where images will be placed or scanned.

A directory path on the file server containing the new documents for this source. The source folder names of the associated document types are concatenated to this path to define where the registration program looks for new documents. This is just the default path. It may be overridden on the document type pop-up window.

This must be a valid directory but it does not have to be available to the user entering this data. This directory must be visible to the Workflow and Imaging modules' IAS server and to the scanner.

Processed Path Root

This is the root directory path where images will be transferred to, during the automatic processing of a new image.

A directory path on the file server containing the processed documents for this source. The source folder names of the associated document types are concatenated to this path to define where the registration program puts new documents after it has processed them. This is just the default path. It may be overridden on the document type pop-up window.

Once the CMiC Imaging module routine finds a file sitting in the source directory it will retrieve the file, index it, and move it to this processed directory. Users should not have access to this directory. If a file is deleted from this directory it is not removed from the CMiC imaging system. This directory must be visible to the Workflow and Imaging modules' IAS server.

Virtual Path Root

This is the same directory as the processed directory, but has a name that is accessible via the internet

A URL giving the root path that is to be used by the image manager to find documents to be displayed. The full URL is obtained by concatenating on to this value the source folder name for the document type and the actual file name, which is saved in the document description in the database. This is just the default URL. It may be overridden on the document type pop-up window. Note, however, that this must point to the same directory as the processed root path.

Location

This field indicates whether the image files are located locally (connected) or remotely.

Active – Checkbox

Valid values are checked or unchecked.

Active indicates that this source will be available when categorizing images or entering flysheet information against images.

Parse – Checkbox

If the 'Parse' box is checked, the source can be used for Kofax input files and the XML files saved under this source will be parsed to get data describing the corresponding image.

Auto Submit – Checkbox

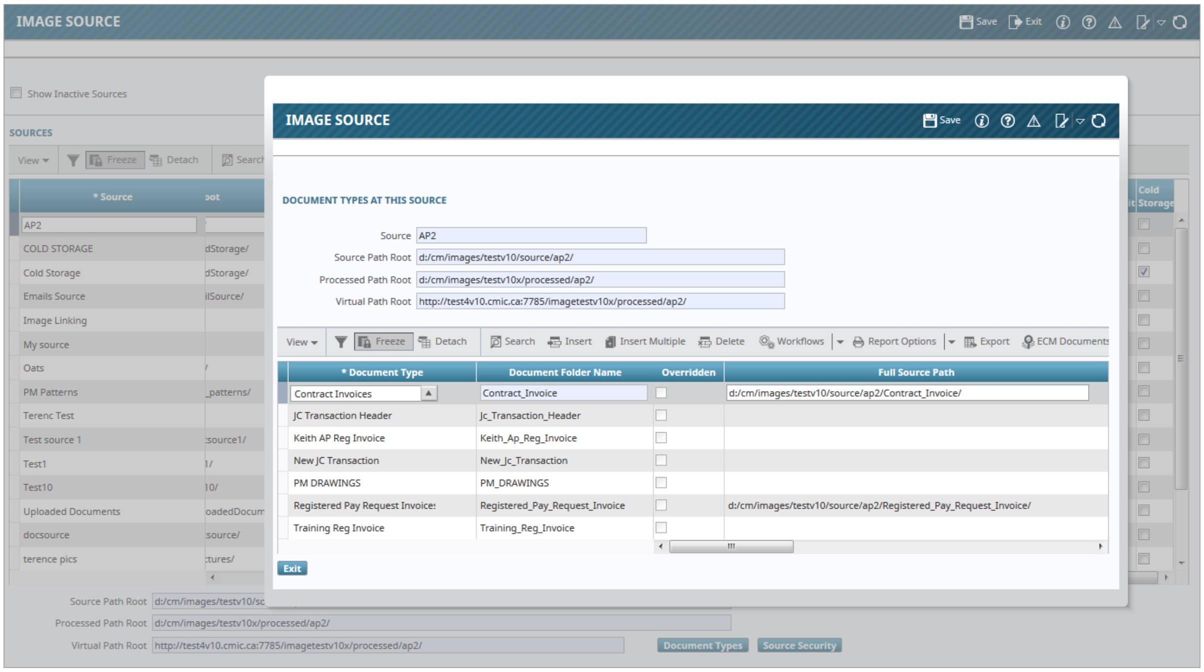
If the 'Auto Submit' box is checked, the flysheets populated via the 'Parse' checkbox will automatically be submitted to workflow.

Cold Storage – Checkbox

If the 'Cold Storage' box is checked, this document type will appear in the Cold Storage drop-down list and can be used to save cold storage files.

Once the image source root directories have been created, document types need to be assigned to the source. A document type can be assigned to multiple sources. This allows, for example, the document type "Std AP Registered Invoice" to be used in multiple locations or departments.

To assign document types to a source – make sure the cursor is on the correct source record then use the [**Document Types**] button. This will open a screen similar to below.



Pgm: IMGSRC – Document Types At This Source – [Document Types] button

Document Type

Select the document type using the LOV on this column. The document type description of the associated document. Document types must have been previously defined or in the case of a standard document type – been made active.

Document Folder Name

This is the source folder name from the document type definition. It cannot be changed here but can be used to formulate a query.

Full Source Path

This shows the full path that will be used by the registration program to find new documents. By default, it is the concatenation of the source root path and the document type source folder name. The user can type over it with an overriding path. To restore the default path just clear the field.

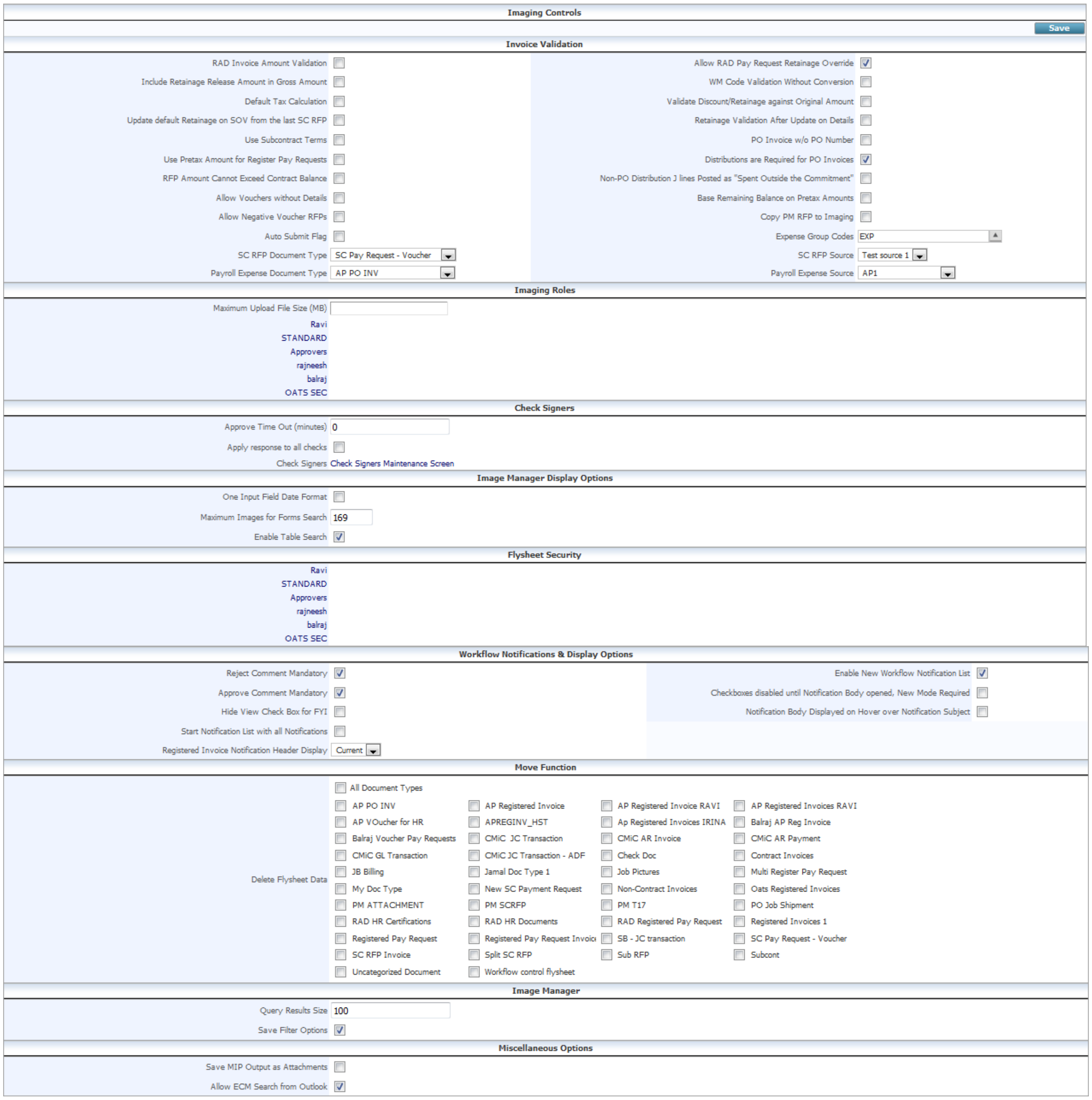
Full Processed Path

This shows the full path that will be used by the registration program to store newly processed documents. By default, it is the concatenation of the processed root path and the document type source folder name. The user can type over it with an overriding path. To restore the default path just clear the field.

Full Virtual Path

This shows the full URL (except for the file name) that will be used by the Image Manager to display documents. By default, it is the concatenation of the virtual root path and the document type source folder name. The user can type over it with an overriding URL. To restore the default URL just clear the field. If this URL is overridden, it must still point to the same directory as the full processed path.

Imaging Control – Screen



Imaging Control screen; standard Treeview path: Imaging > Setup > Imaging Control

Invoice Validation – Section

RAD Invoice Amount Validation – Checkbox

This is used when the APRI_AMT field is used in Image Manager as the control amount for the distribution. Usually the APRI_ORIG_AMT is used for the control amount and the distribution updates the APRI_AMT field.

Include Retainage Release Amount in Gross Amount – Checkbox

If checked, the module will include retainage amount in the Gross Amount field. If unchecked, do not include retainage release when calculating the gross amount of a registered invoice.

Default Tax Calculation – Checkbox

If the user has not entered tax codes for the invoice, get the default tax codes defined for the job, department, or vendor – in that order. This applies only to registered invoices.

Update default Retainage on SOV from the last SC RFP – Checkbox

This checkbox will allow a user with security, to override the percent held for retention by line in the schedule of values within the Imaging module. This change will update the subcontract to hold the percent entered on this invoice and all subsequent invoices. This checkbox will only work if the 'Allow RAD Pay Request Retainage Override' checkbox is enabled.

If checked, and the retainage percent was changed in a SOV line in an RFP, then the next time a new RFP is created on that SOV line, the module will consider the updated retainage percent made in the last RFP.

Use Subcontract Terms – Checkbox

By default, the due and discount dates will be calculated on a subcontract invoice based on the vendor terms. This checkbox, if enabled, will instruct the Image Manager module to use the terms specified on the subcontract. If no terms are specified on the subcontract, the module will default to the vendor terms.

Use Pretax Amount for Register Pay Requests – Checkbox

In the details flysheet for registered pay requests, only pre-tax amounts can be entered into the Pre-Tax Amount field and the tax included amount will be calculated in the Debit Amount field. Normally, the tax included amount is entered as the debit amount and the Pre-Tax Amount field is not used.

RFP Amount Cannot Exceed Contract Balance – Checkbox

Imaging will adhere to the control settings for Subcontract Management when it comes to overpaying a subcontract. The invoice will automatically go on-hold if that is the setting in that control file and a notice will be entered into the warning box on the imaging subcontract invoice header. If this checkbox is enabled however, it will instruct the Image Manager to ignore those settings and will not allow a subcontract invoice to exceed the contract balance. The invoiced amount will automatically be reduced to the total remaining if the remaining is exceeded and cannot be overridden in the Image Manager module.

Allow Vouchers Without Details – Checkbox

It is not normally possible to enter vouchers without details. With this checked it is possible. This is intended to be used when vouchers are being imported. It should not normally be used.

Allow Negative Voucher RFPs – Checkbox

Allow negative RFPs where there is no negative SOV amount. Usually, when this checkbox is unchecked and negative RFP is needed, then the process is to put in an initial positive amount and then change it in the SOV to the desired negative amount (this will work only if there is at least one negative SOV line). If there isn't a negative SOV line and negative RFP still needs to be processed, then this checkbox should be checked.

Auto Submit Flag – Checkbox

This is used in conjunction with the 'Copy PM RFP to Imaging' checkbox. If a request for payment is copied in from CMiC Field, this checkbox enabled will automatically submit the invoice.

SC RFP Document Type

This is used in conjunction with the ‘Copy PM RFP to Imaging’ checkbox. This area is used to specify which document type is to be used for RFP invoices to be copied to from CMiC Field. The document type must use the RAD_VOUCHER_V header flysheet.

Payroll Expense Document Type

This is used in conjunction with the new eXpense mobile app. This is the document type used for storing invoices entered via the app.

Allow RAD Pay Request Retainage Override – Checkbox

When this checkbox is enabled it will allow a user (with security) to override the amount being held by SOV line either by Retainage Percentage or Current Retainage fields. This change will only affect the current invoice unless the update default retainage on SOV from the last SC RFP box is checked (described earlier).

WM Code Validation Without Conversion – Checkbox

This checkbox was added to allow the system to not look at the weight measure conversion table and just allow any WM code for registered invoice details.

Validate Discount/Retainage against Original Amount – Checkbox

If checked, the module will calculate the discount and retainage against the original amount (APRI_ORIG_AMT) instead of the invoice amount (APRI_AMT).

The Distributed Amount field in the registered invoice header is updated from the amount entered in the registered invoice details flysheet. The discount amount or percent is calculated using the amount in the Distributed Amount field so in some cases although there is a discount setup on the vendor or entered into the flysheet header, the amount of the discount shown will be $0 until the distribution is entered. In order to show the amount of the discount prior to entering distribution, enabling this checkbox will instruct the system to read the Original Invoice Amount field of the registered invoice header instead of the Distributed Amount field.

Retainage Validation After Update on Details – Checkbox

If this is unchecked then that means it will remove retainage validation from the actions taken after each detail record gets updated for registered RFP. If checked, the module will validate retainage after update.

PO Invoice w/o PO Number – Checkbox

This is used to enter PO invoices without the PO number in the header. This is not recommended and if it is to be used, a custom workflow with checking for PO details should be implemented.

Distributions Are Required For PO Invoices – Checkbox

This is used in workflow validation of PO invoices. If this is NOT checked the workflow allows invoices that have not been allocated to the PO to be approved through workflow. By default, it is assumed to be checked.

Non-PO Distribution J-Lines Posted As “Spent Outside The Commitment” – Checkbox

If this is checked, the non-PO distribution J-lines will be posted as spent outside the commitment.

Base Remaining Balance On Pretax Amounts – Checkbox

If this is checked, the value of the Remaining Balance field of the registered invoice or registered RFP flysheet header is based on the pre-tax amount. Otherwise, the remaining balance is based on the tax-included amount.

Copy PM RFP To Imaging – Checkbox

If enabled, when a request for payment is entered in CMiC Field and then submitted, the header and distribution will be copied to the Imaging document type specified in the SC RFP Document Type field in Imaging Controls.

Expense Group Codes

This is used in conjunction with the new eXpense mobile app. This is the invoice group code used for storing invoices entered via the app.

SC RFP Source

The Imaging source is used in conjunction with the value in the SC RFP Document Type field.

Payroll Expense Source

This is used in conjunction with the new eXpense mobile app. This is the source used for storing invoices entered via the app.

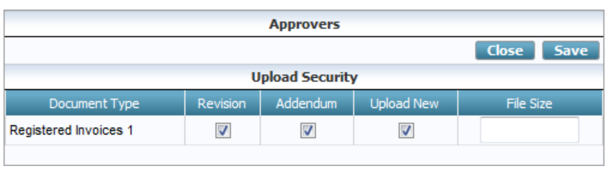
Imaging Roles – Section

The default groups setup within Imaging will, by default, have access to different Imaging document types. By clicking on a group, it will expand to show the list of document types assigned. The Imaging Roles section of Imaging Control is used to control the uploading function within the Image Manager module.

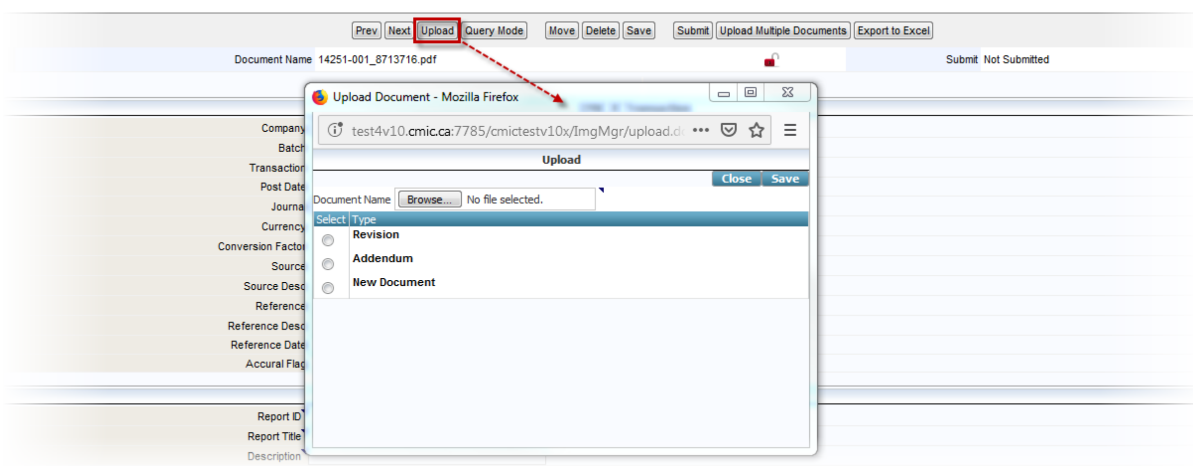
If set, the maximum upload file size on the Imaging Roles section will restrict the size of files uploaded into the Image Manager module to a size in MB that has been chosen. If left blank, it is unlimited.

By clicking on a document type name next to an Imaging group name, it will open a new dialog box.

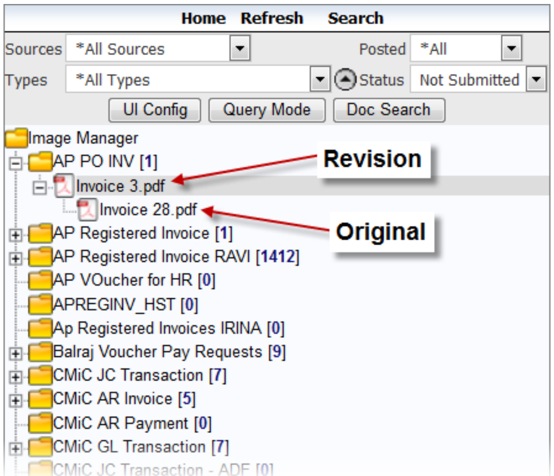
As highlighted below, the dialog box will show the name of the Imaging group at the top and the name of the document type on the left. The security that can be set in here will control access to upload options within Image Manager based on the group and document type.



In Image Manager, the Upload pop-up window is opened via the [**Upload**] button and provides a selection of upload options for the user to choose from.

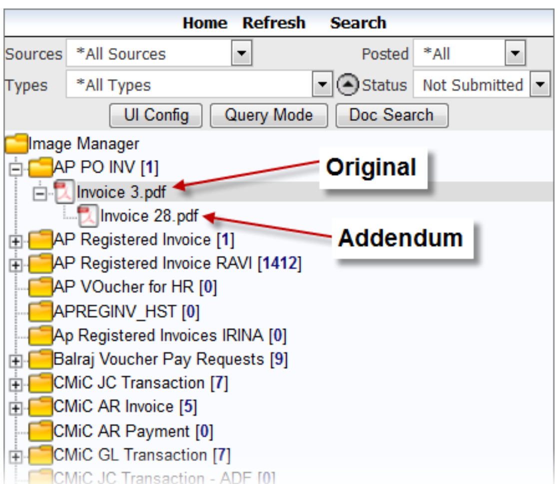


Revision



This option will allow the users in the group to upload a revised document to an already existing document in Image Manager in that document type. If a revision is uploaded, the current document will be attached below the revised document.

Addendum

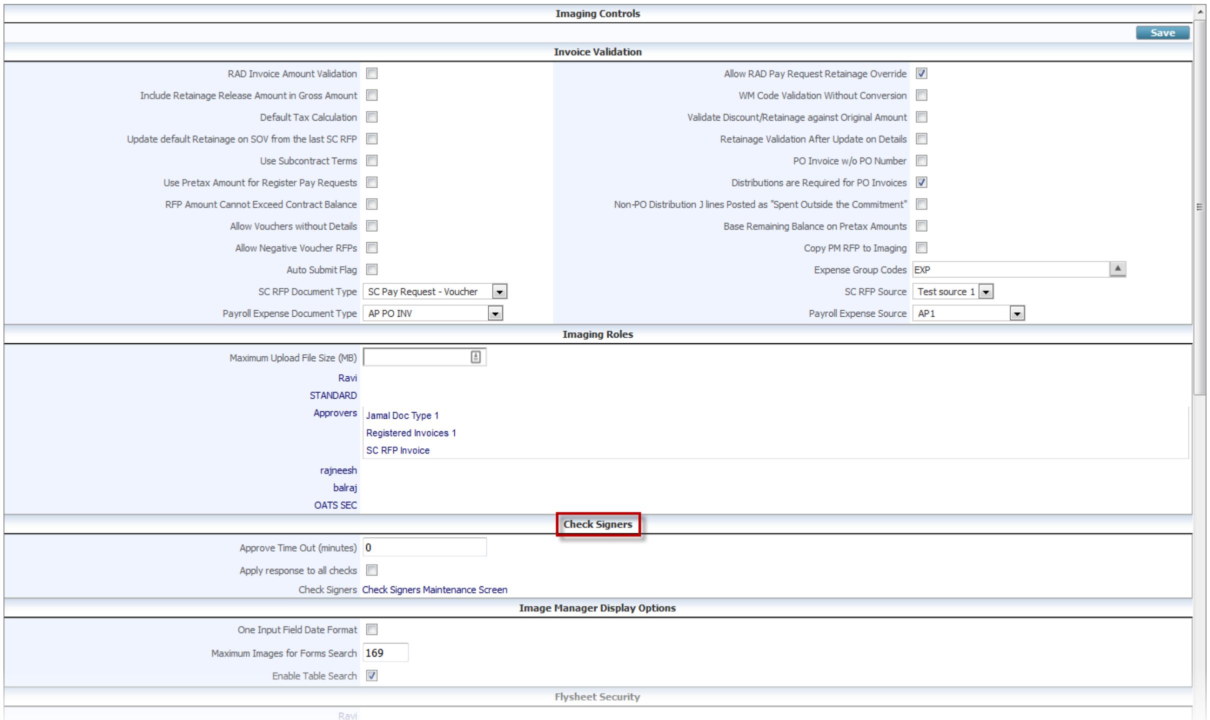


This option will allow the users in the group to attach one or more documents to the original file.

Upload New

The upload new functionality allows the group members to upload brand new documents into the document type. This upload ability will allow a user to right-click on the document type in the treeview and this will produce an Upload pop-up window, as well as being able to use the [**Upload**] button option.

Check Signers – Section



Imaging Control screen; standard Treeview path: Imaging > Setup > Imaging Control – Check Signers section

This section is used to configure the Approve Time Out field and 'Apply Response To All Checks' checkbox for check signers and to set up users as check signers. The following are descriptions of these two settings.

Approve Time Out (Minutes)

This is the amount of time, in minutes, that the status (approve/unapproved) of the check can be changed manually on the flysheet.

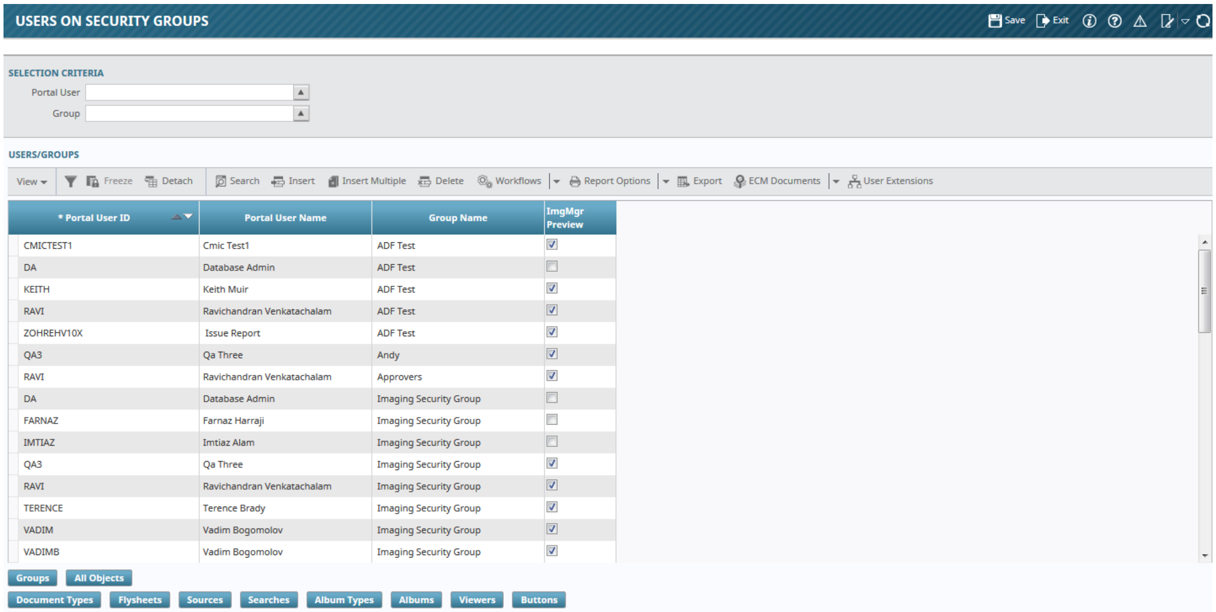
If a check signer, set up through the Check Signers Maintenance screen (refer to the following *Set Up User as Check Signer* section in this guide), has the 'Override Timer' checkbox checked, this timer does not apply to the user.

Apply Response to all Checks – Checkbox

If checked, the system will update all of the approved statuses for all of the invoices on the check to the last entered response. As an example, if there are 50 invoices on the check, and the check signer updates any of the invoices with a void response - all 50 invoices will be updated with the void response.

Set Up User as Check Signer

Part 1: Add User to Imaging Security Group

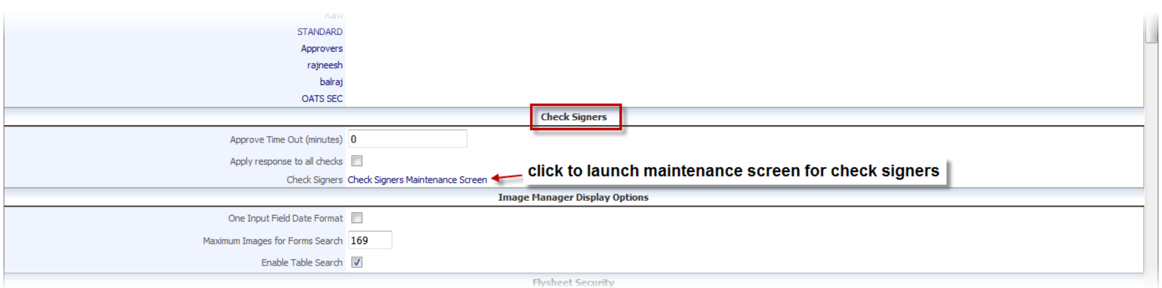


Pgm: IMGUSRGP – Users on Groups; standard Treeview path: Imaging > Utilities > Security > Users on Groups

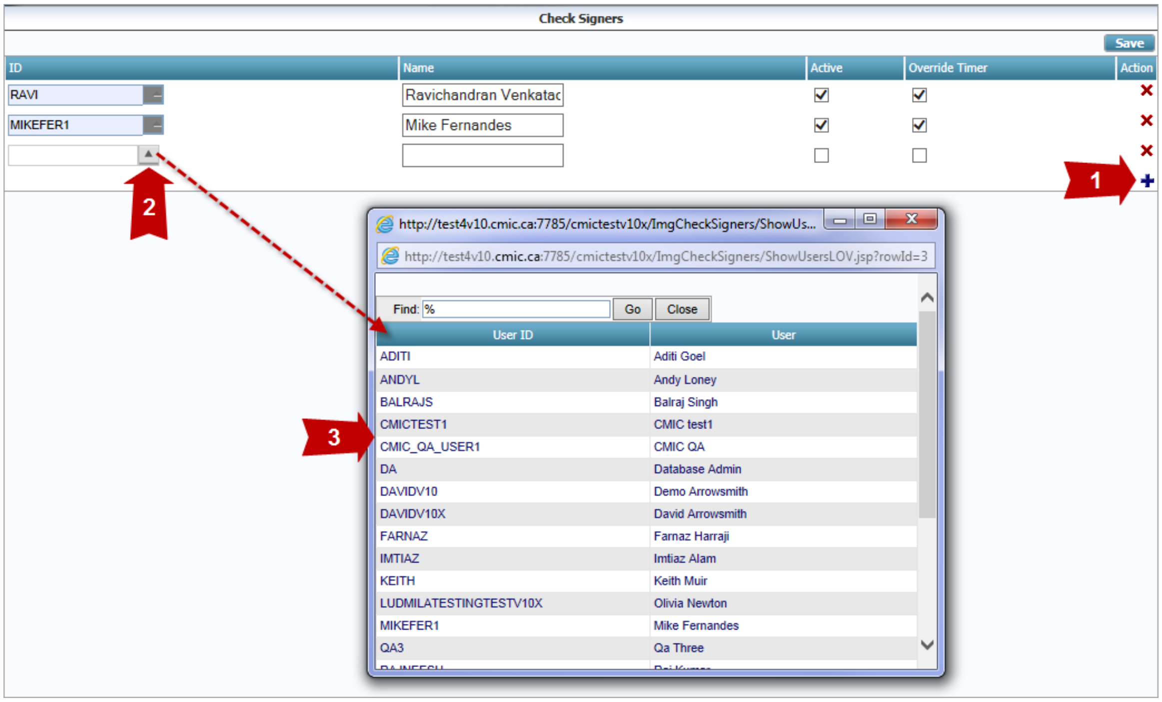
First, the user to be set up as a check signer needs to be added to a security group through the Users On Security Groups screen (shown above with standard Treeview path). This adds the user to the LOV used by the Check Signers Maintenance screen.

To add a user to an Imaging security group, click the Block Toolbar's [**Insert**] button. Use the new row to select the user's user ID and group name, then click [**Save**].

Part 2: Set Up User as Check Signer – Check Signers Maintenance Screen



To set up a user as a check signer, launch the Imaging Control screen. Under the Check Signers section (framed above), click the Check Signers Maintenance Screen link.



Sample of Check Signers Maintenance screen with a pop-up window used to select users from Imaging security groups.

In the Check Signers Maintenance screen, shown above, click the icon (red arrow 1) to add a new row. For the new row, click the arrow on the ID column’s list of values field (red arrow 2) to launch a pop-up window to select a user from the list of Imaging security group members (red arrow 3).

The following provides details about the checkbox settings for each check signer.

Active – Checkbox

Set if the check signer is currently active or not.

Override Timer – Checkbox

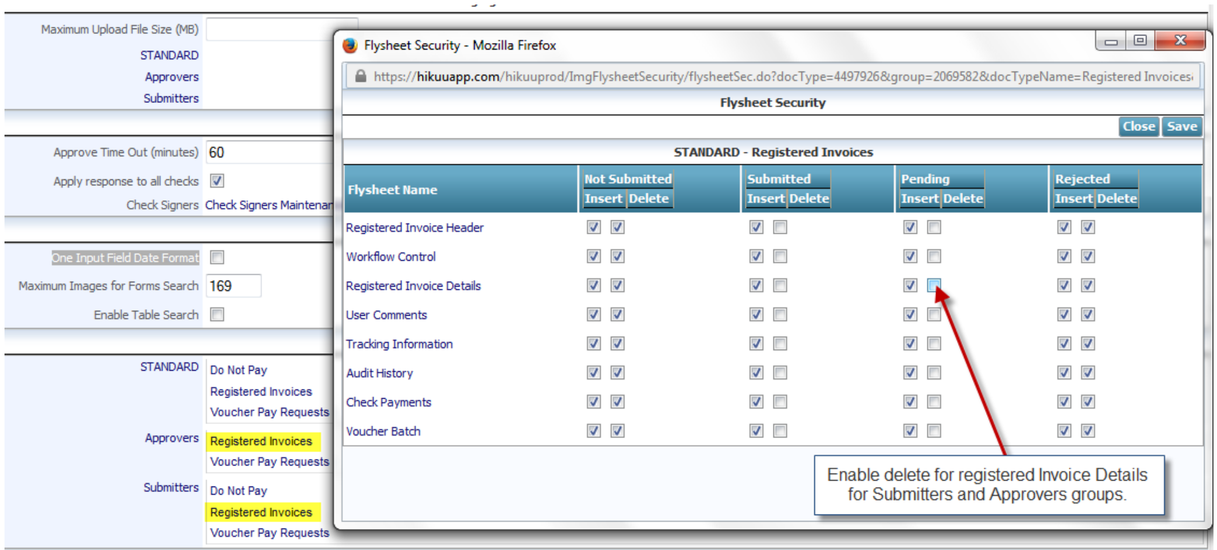
If checked, the Approve Time Out field that is set up under the Check Signers section does not apply to the corresponding user.

To finish, click [**Save**].

Related Information: Add Signature Image to Bank Account

To add a user’s signature image to the bank account for which checks are to be debited against and signed with the image, please refer to the *Bank Account Maintenance – Screen* section of the *System Data* guide.

Flysheet Security – Section



This area will allow the user to set security access to flysheets and drill down into the associated fields and set security at that level. Flysheet security is set by Imaging group and document type. Generally, this area should not be manipulated too tightly unless the person administering it is fully aware of what the security settings may do.

Generally, the only setting that should be made is below. This will allow users to delete incorrect lines of distribution in the Registered Invoice Details flysheet.

Workflow Notifications & Display Options – Section

Reject Comment Mandatory – Checkbox

This will force every user that rejects a workflow to enter a comment as to why. The comment will appear within the Audit History flysheet in Image Manager or within the Review/Approval tab of CMiC Field objects that are workflowed.

Approve Comment Mandatory – Checkbox

This will force every user that approves a workflow to enter a comment. The comment will appear within the Audit History flysheet in Image Manager or within the Review/Approval tab of CMiC Field objects that are workflowed.

Hide View Check Box For FYI – Checkbox

This should be enabled if there are users that are invoice approvers as well as workflow timeout handlers for invoices. This checkbox will not allow the user the ‘View’ checkbox in Image Manager for any timeout notifications. This will allow the user to select all notification for viewing (to code an invoice for instance) without also opening up invoices in view mode that they are not currently responsible to code and approve/reject.

Start Notification List with all Notifications – Checkbox

This option will clear the filter of every notification list when the user closes it. With this option unchecked, the filtered view in the workflow notification list will be remembered, by user, and that filter will still be active when the workflow notification list is reopened.

Registered Invoice Notification Header Display

By default, this will show the current information in the header of registered invoices within the notification list when an invoice is selected and will update when changes are made that affect the header. If “Original” is chosen, the information presented will remain static as to when the invoice was sent into the workflow.

Enable New Workflow Notification List – Checkbox

There are two skins for the workflow notification list. Try them out and see which is preferred.

Checkboxes disabled until Notification Body opened – Checkbox

If choosing to use the new workflow notification list, this option will disable the ability for users to choose the select all and approve (or reject) all option, but will force them to click on every notification that they have. This is designed to ensure that approvers are reviewing their items.

Notification Body Displayed on Hover over Notification Subject – Checkbox

If checked, this will show the body of the subject for each notification if the user places their mouse pointer on the subject.

Move Function – Section

Within Image Manager, there exists the ability to move images between document types. The ability to move is only allowed when an image is in “Not Submitted” or “Rejected” status. If there is information saved in the header when an image is moved, that information should be deleted prior to moving as flysheets are unique in each document type and the moving of an image does not remove, for instance, a request for payment that may have been entered against it. If enabled, the move function checkboxes will automatically delete the header information from the flysheet of any moved image to ensure that any transaction entered is removed and that the image does not become tied to two or more entered transactions.

Miscellaneous Options – Section

Save MIP Output as Attachments – Checkbox

This checkbox will add MIP output as an attachment to the object it was created from. Unchecking the box will stop this behavior.

NOTE: This functionality currently does not work for ADF screens.

Allow ECM Search from Outlook – Checkbox

If this box is checked, it allows searches to be run in the ECM Outlook plugin.

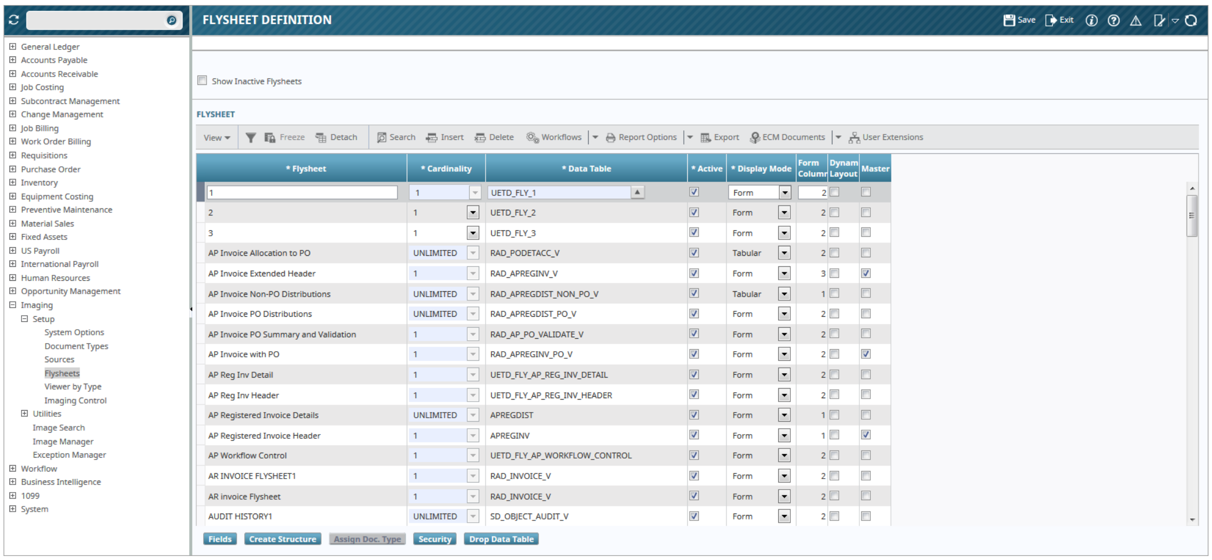
Building Flysheets

A flysheet is a user-defined set of data entry fields. Flysheets are used to record information about an image that is related to a specific document type. There may be one or more flysheets associated with a document type. A flysheet may consist of a single record linked to the document or it may be a multi record detail table.

A flysheet layout can be altered and changed or even deleted before the [**Create Structure**] button has been activated and the table built. After that, if there is no data in the table, it can be deleted by using the [**Drop Data Table**] button.

NOTE: Invoices created and submitted through the eXpense app are sent to Imaging as standard flysheets. For more information, please see the *Mobile Workspace* guide.

Step 1: **Build a Flysheet Table**



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

Flysheet

This is the name of the flysheet the user will see when entering data against an image. The value entered in this field will also default into the Data Table field.

Cardinality

Select either “1” or “UNLIMITED” from the drop-down list. Master flysheets must have “1” here. Unlimited cardinality means that there may be many records in the flysheet for a single document.

This column indicates if this flysheet has a one to one relationship with the image, meaning one image one flysheet record or this flysheet has a many to one relationship meaning one image and multiple flysheet records. An example would be an invoice header has a cardinality of one but the related invoice details have unlimited cardinality.

Data Table

Name of the flysheet table being created.

The system will automatically default the table name as “UETD_FLY” plus the name entered in the Flysheet field – truncated to 30 characters in total if required. If changing the name, be careful not to use a name that is already defined for another flysheet or another table that exists.

Active – Checkbox

Checked indicates active. If active the flysheet will be available for the user to see in the Image Manager module.

Display Mode

Like user extensions there are two pre-defined methods to display the records: form or tabular. Form displays the record down the page one field after the other. This mode is usually used for header records. Tabular displays multiple records one after the other much like a spread sheet. Data entry is from left to right instead of top to bottom. This mode is best for detail records where there are usually multiple records entered against one header record.

Form Columns – Checkbox

If the display mode is set to form then you can tell the system how many columns that need to be defined. The cursor will then move to the right for the number for columns then on to the next row.

Dynamic Layout – Checkbox

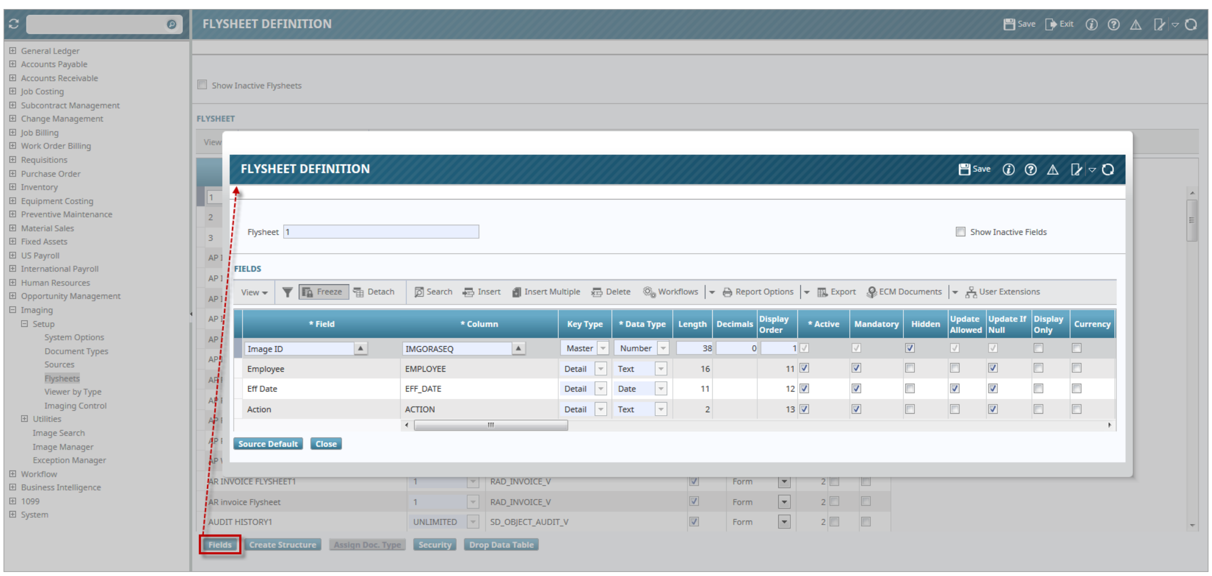
Allows the flysheet to use the Position and Colspan fields in the flysheet setup to position field in a free form selection.

Master – Checkbox

Used by the Image Manager to determine which flysheet in a document type is the master flysheet when performing some operations, such as deleting flysheet data.

Note that the color of a field indicates whether or not it can be changed. The description can always be changed as long as it continues to be unique. The other fields cannot be changed if the data table exists. It is possible to drop empty data tables by clicking on the [**Drop Data Table**] button. This brings up a screen containing all empty data tables. After a data table is deleted, the related fields on the main page will revert to white. As a safety measure, data tables cannot be dropped using this screen if the tables contain any data.

Step 2: **Add Fields to the Flysheet Table**



PGM: IMGFLYFM – Flysheet Definition; standard Treeview path: Imaging > Setup > Flysheets – [Fields] button

Once the flysheet table has been created columns must now be created in the table. These columns and their definitions define the layout of the flysheet and the user interface required for each field. The first field, Image Id, which is always shown in yellow, is a system defined field that must be there and cannot be changed. This field will not be enterable on the flysheet.

Field

Name of the field the user will see.

Column

Name of the actual column in the table. This must be in a format that is a valid Oracle database column name, therefore blanks cannot be left in the name. If the name needs to be split, use underscores (e.g., Invoice_number, Invoice_desc).

Key Type

Select either "None" or "Detail" from the drop-down list. Only the standard field, Image ID, can have the type "Master". Fields comprising the unique key for the document have the type "Detail". All other fields should be set to "None".

If the table has a cardinality of 1 then the value must be "None".

- **None -** Indicates that the field is not part of any discriminator key.
- **Detail -** Indicates that this field is part of the key that discriminates detail records from each other. This can only be used when the table cardinality is set to "UNLIMITED".

Data Type

This is the type of data that will be stored in this column.

- **Text -** An open field that allows any type of data to be entered.
- **Date -** This field will only accept a valid date. If the field is a date type it will automatically display on the flysheet with a calendar icon next to it.
- **Number -** A number field will only accept valid numbers.

Length

Enter the length of the column being created. This is the length of the field. If the field is numeric, make sure that the field is defined large enough to handle decimals.

NOTE: This field may be left blank if the type is date.

Decimals

This is the number of decimal places for the number. For example, if the length is 18 with 2 decimals then the field allows 16 digits (including sign) before the decimal plus 2 decimal places.

NOTE: This field is only required on number type fields.

Display Order

This field indicates the order the field will display on the flysheet. This field is very important when defining lists of values. The list can only be available on a field if the key to the data is a field above. For example, a job list can only be created if a Company Code field exists before it is in the display order.

Active – Checkbox

If unchecked this field will not display on the flysheet.

NOTE: By unchecking a field, it becomes hidden from the user interface on the flysheet, but predefined data can still be passed into CMiC by setting the Default Value column.

Mandatory – Checkbox

If a field is marked as required the user will not be able to save the flysheet record without entering data in this field. Also the field will have a small blue triangle next to it on the flysheet indicating required.

Hidden – Checkbox

This checkbox should be used on detail type records, where the key fields are entered in the master record and are to be copied down to the detail without the user knowing that this is happening. The user will not see these fields in the detail record if they are marked as hidden.

Update Allowed – Checkbox

Checked indicates the field can be updated after data has been saved.

Update If Null – Checkbox

Checked indicates the field can only be updated once the record has been saved if the field is empty (null).

Display Only – Checkbox

Checked indicates field cannot be updated at all. It is view only regardless if the 'Update Allowed' or 'Update if Null' boxes are checked.

Currency – Checkbox

This field is only applicable if the field is numeric. If checked the module will automatically display the number with 2 decimal places at all time, and will comma-group numbers greater than 1000. For example, if the value is 98, the module will display it as 98.00, and a value of 10998 will display as 10,998.00. Also, if checked, this field will display right aligned.

Case

This field indicates the how the data entered will be stored. This is only applicable for text type fields – use the default for number and date type fields.

- **Mixed -** Will save the data as entered.
- **Upper -** Will convert all data entered to upper case when saving the record.
- **Lower -** Will convert all data entered to lower case when saving the record.
- **Init Cap -** This will convert all entered data to have the first letter of each word capitalized and the rest lower case.

List Of Values

- **None -** If selected this indicates that the field will not have an LOV available. This is the default.
- **Valid Data List -** If this option is selected, this means that there will be an LOV available on this field, and the data for the LOV is manually entered via this screen in the next step.
- **CMiC Data Object -** This refers to all other values in the drop-down list. An LOV will be attached to the field which will list the data associated with the selected option. For example, a CMiC company list.

[**Valid Data**] – Button

If the List Of Values field was set to "Valid Data List" then the valid data needs to be entered. This button opens a window where valid data for this field is entered.

[**LOV Properties**] – Button

If the LOV is against a defined table, the system requires the key to the table to be defined. The Flysheet field must be matched to the pre-defined key fields. This is used to link parameters in the LOVs to preceding fields in this flysheet. For example, a Phase LOV should have the company code and job code as part of the lookup for the LOV.

Code Size

This field is used to determine how large the display of the Code field on the JSP will be. For example, the phase code in Job Costing can be up to 16 characters, but if you only use a maximum of 8 then enter an 8 here. It will make the Code field smaller on the flysheet. If only the description is desired to be displayed, not the code, then enter a 0 in this field.

Desc Size

This field is used to determine how large the display of the Description field will be.

Validate Using LOV – Checkbox

If checked, the module will ensure the data entered in the field is valid by the list of values. If unchecked, it means that the field may have an LOV of suggested data, but the user does not have to enter a value that exists in the LOV.

Display Type

This field determines the look of the field when displayed on the flysheet.

- **Drop Down List -** This is usually used when there is a very limited list of valid values.
- **List of Values Pop-Up Window -** This type of list should be used when there could be a lot of data, such as a vendor list or a project list.
- **Single Line Text -** This should be used for fields that are limited in length, such as invoice codes where there is not a valid set of values.
- **Multi Line Text -** This should be used for description type fields where the user is expected to enter quite a bit of free form information.
- **Date With Calendar Pop-Up Window -** This should only be applied against a date field. This will automatically display the Calendar pop-up window next to the date field.

Display Columns

This field determines how wide the data entry field should be.

NOTE: Only required if the display type is multi line text.

Display Rows

This field determines how many rows of the length defined in the previous field will be displayed.

When the display columns and rows are combined they make a single text entry area.

NOTE: Only required if the display type is multi line text.

Lower Bound

Enter the lowest/smallest value allowed in this field. This field restricts the values that can be entered. For example, in a numeric field, if 1 is the lower bound value, then the user may not enter .05 or –1 in the field. This can be used for character fields as well.

Upper Bound

Enter the upper/largest value allowed in this field. This field restricts the values that can be entered. For example, in a numeric field, if 99 is the lower bound value, then the user may not enter 99.5 or 100. This can be used for character fields as well.

Default Data

Enter a default value for the field. Data entered here will automatically display on the flysheet. Default data should only be used if it is unlikely that the user will need to change the value. Make sure the default data entered is not larger than the field definition.

Help Message

Enter hint line text for this field. The message entered in this field will display on the flysheet entry screen when the user puts the cursor on this field.

Position

Indicates where in the flysheet the field should be located (in a display order).

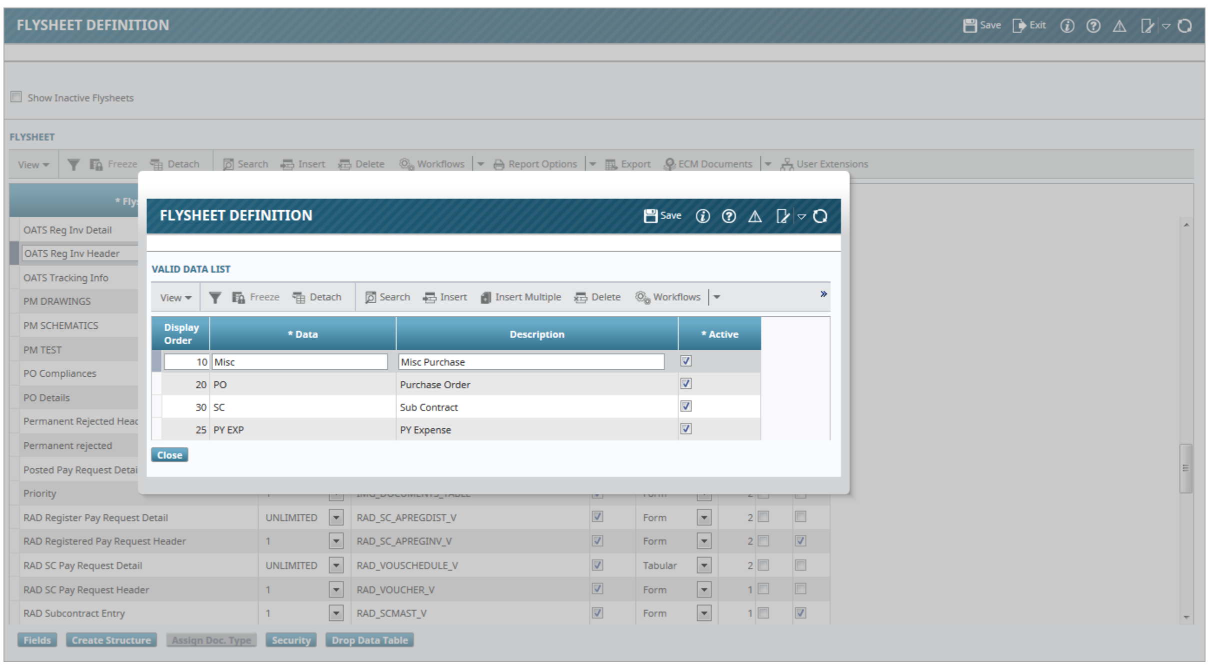
Colspan

Indicates how many columns in the flysheet the field should occupy.

[**Source Default**] – Button

Allows the default value of the current field to be dependent of the Imaging source where the document resides.

Step 3: **Add Valid Data**



Pgm: IMGFLYFM – Valid Data List; standard Treeview path: Imaging > Setup > Flysheets – [Fields] button – [Valid Data] button

This step is only necessary if there are fields defined with an LOV of "Valid Data List". To access this window, press the [**Valid Data**] button on the Fields Definition screen. This window will only be active if the field definition List of Values field is set to "Valid Data List".

Display Order

Enter the display order number for the data being entered. This is a numeric field.

This field is used to determine the display order of the valid data. So that extra data can be easily added at a later date, it is recommended that the display order is increased by a standard multiple of 10 or 100 depending on the quantity of data that will be entered. This allows for the insert of data in an alphabetical order at a later date.

Data

Enter the data/code. The value entered here will be limited to the field definition size.

This is the data that will be saved with the record. This is usually a code while the next field is the description of the code.

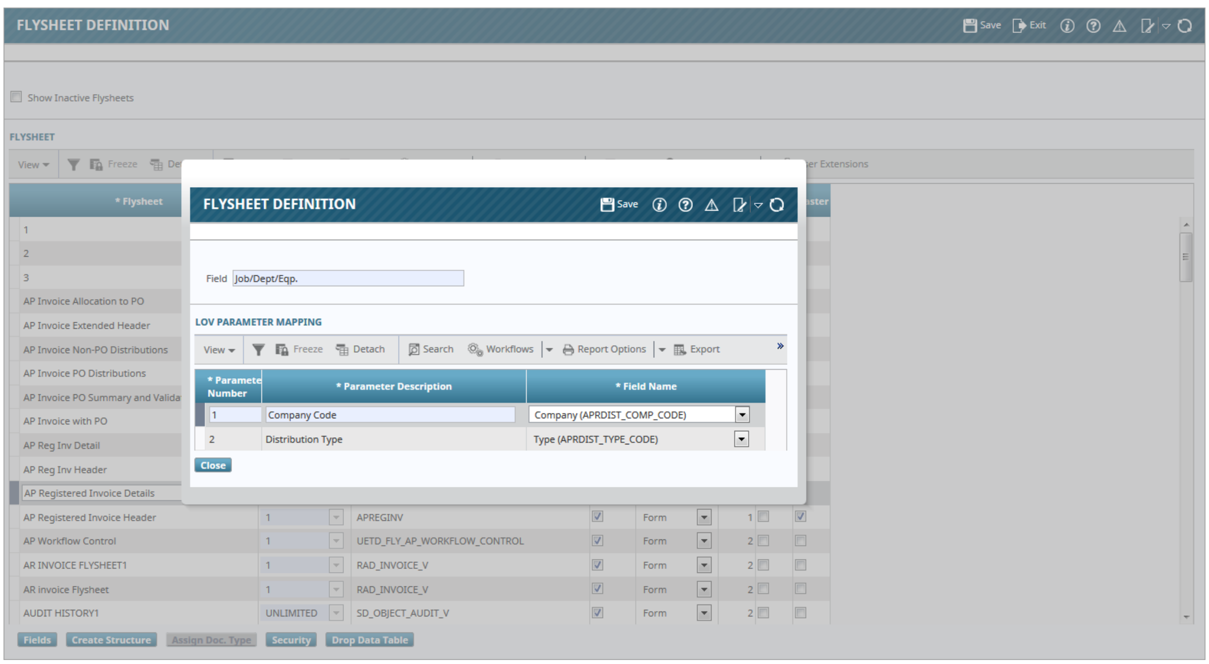
Description

Enter the description of the code entered in the previous field. This is the description of the code entered in the previous field. This field and the code will display in the LOV in the Image Manager, but only the code/data will be saved in the record.

Active – Checkbox

If the field is checked as active, it will appear in the list of values for this field when in the Image Manager.

Step 4: **Create LOV Mapping**



Pgm: IMGFLYFM – LOV Parameter Mapping; standard Treeview path: Imaging > Setup > Flysheets – [Fields] button – [LOV Properties] button

This step is only necessary if the type of LOV defined is a lookup to a CMiC Enterprise table. The system needs to know which fields previously entered on this flysheet are required for the LOV to be able to retrieve the correct data. For example, if the LOV being defined is for phase code then the system needs to know which fields in the flysheet represent the company code and job code.

Parameter Number

This is the highest level of the key and is not enterable.

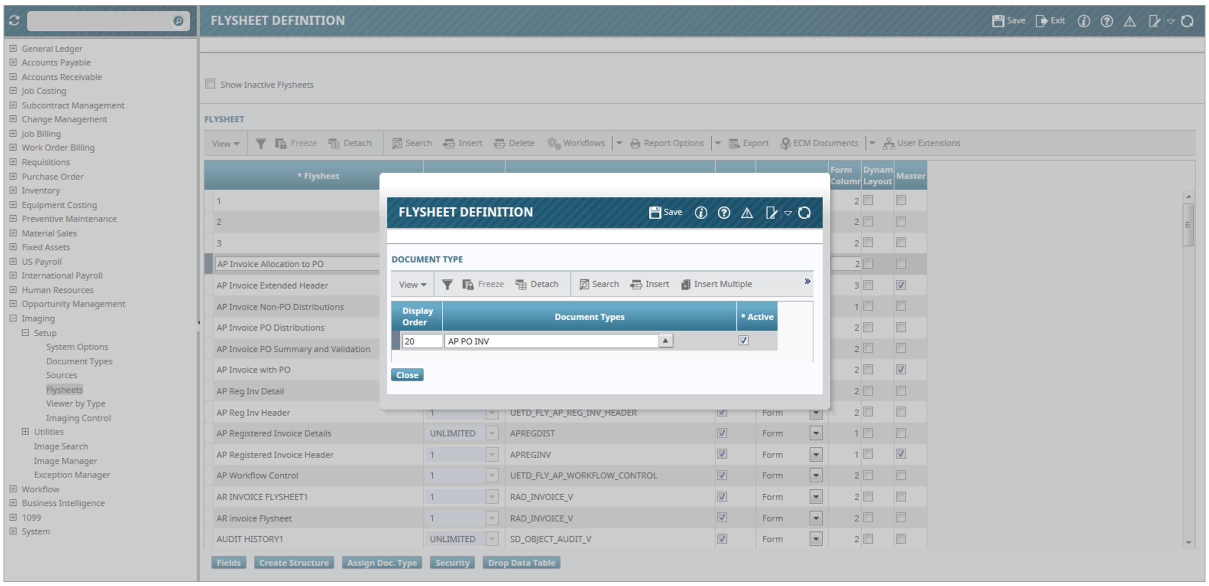
Parameter Description

This is the name of the key field in the CMiC Enterprise system that needs to be mapped. This field is not enterable.

Field Name

Select from the list of values the flysheet field that maps to the key field for this LOV. The LOV will show all fields in the flysheet that have a display order less than the current field.

Step 5: **Assign Document Types**



Pgm: IMGFLYFM – Flysheets Definition; standard Treeview path: Imaging > Setup > Flysheets – [Assign Doc. Type] button

Once the flysheet definition is complete, the last step is to assign the flysheet to the required document type(s). The same definition may apply to multiple document types depending on how document types have been defined. To access this window, press the [**Assign Doc. Type**] button.

Display Order

Enter the display order number for the data being entered. This is a numeric field.

This field is used to determine the display order of the valid data. So that extra data can be easily added at a later date, it is recommended that the display order is increased by a standard multiple of 10 or 100 depending on the quantity of data that will be entered.

Document Type

Select from the drop-down list. The list of document types will depend on the document types entered in the Document Type screen. This list will only contain document types that are marked as active and the user has security to the type.

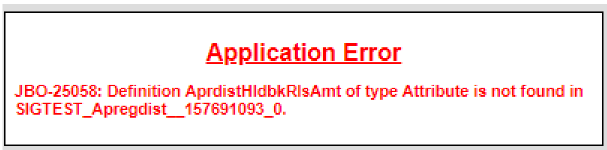
Active – Checkbox

If the row is checked as active, this means that this document type will include this flysheet when in the Image Manager. A flysheet that is marked as inactive overrides this setting.

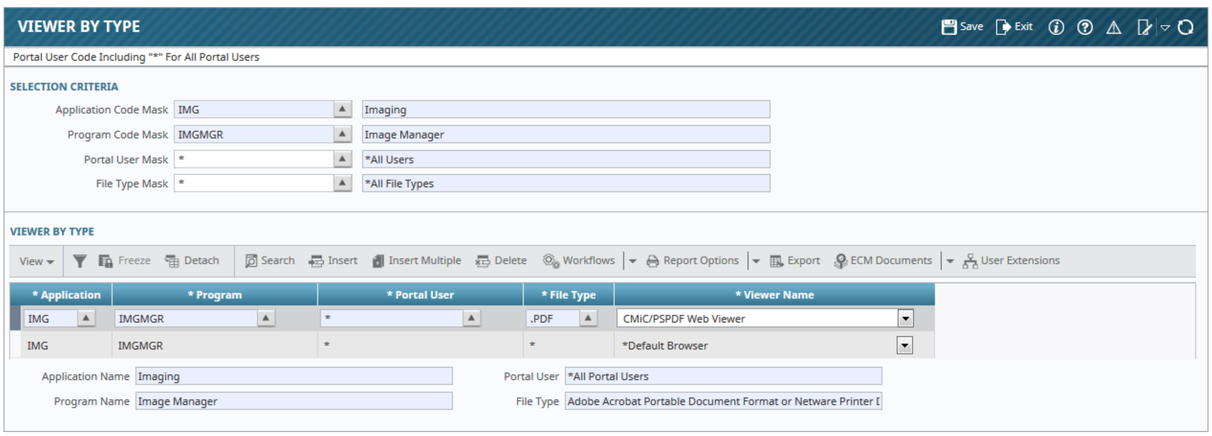
Step 6: **Create Flysheet Structure**

This function is critical. Once the flysheet has been defined it is imperative that this routine be run. To run this routine, press the [**Create Structure**] button on the main screen of the Flysheet Definition screen. This routine will verify that the flysheet has a valid set of fields defined and create the data table. If fields have been added or modified, this routine will update the table structure. Unless this step is done, the flysheet will not be available in the Image Manager.

If this step is omitted, the Image Manager will display an error message resembling the following:



Viewer By Type



Pgm: IMG – Viewer By Type; standard Treeview path: Imaging >Setup > Viewer By Types

The Viewer By Type screen allows the default viewer used to be set by user or file type. This setup is used only if multiple viewer types are to be used to view documents included in Imaging.

The Selection Criteria section will filter information displayed in the Viewer By Type section.

Application

Restricts the Viewer By Type section to display only information for the selected application. This defaults to Imaging and is not updateable.

Program

Restricts the Viewer By Type section to display only information for the selected program. This defaults to Image Manager and is not updateable.

Portal User

Restricts the Viewer By Type section to display only a selected portal user's information. Use "*" for all.

File Type

Restricts the Viewer By Type section to display only a selected file type. Use "*" for all.

Viewer Name

The dropdown list will display viewer types set up on the system. For setup information, see the *System Data* guide.

The Viewer By Type section is used to assign users or file types to a viewer type. Application and program code will always default to Image Manager default settings on this page.

Upload Images

Overview for Uploading Images

Functionality is included to enable users to link images to Enterprise transaction screens and then be able to access these images via the Image Manager through associated document types and flysheets.

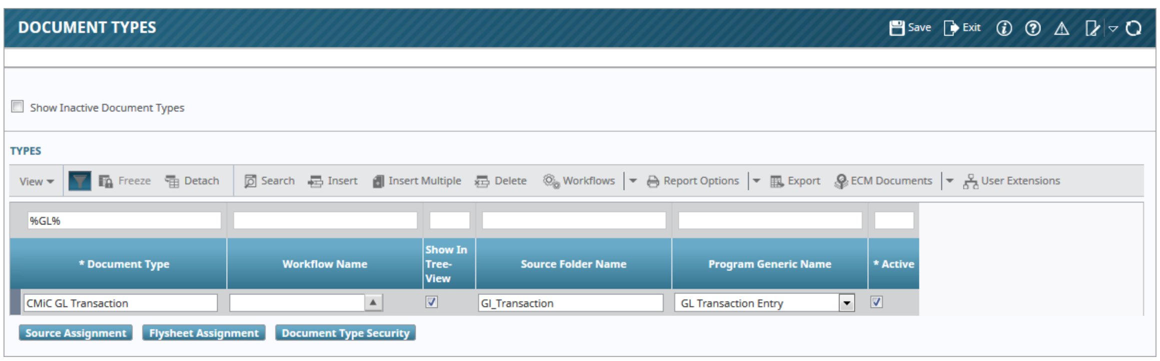
Steps for Setup

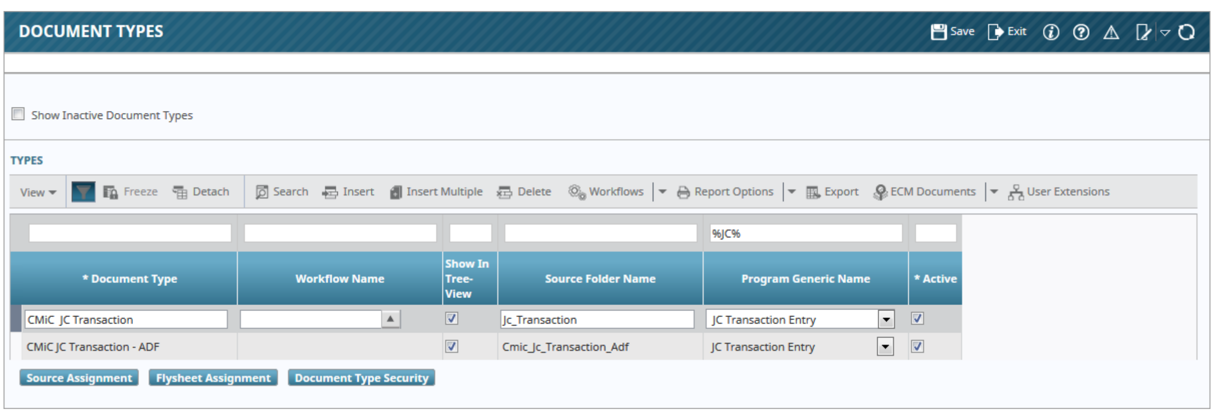
Basic setup (creation of document types, flysheets, and mapping to object oraseq) is done through file installation, but the steps are described below if they need to be done manually in the future for other screens (will require CMiC consultation).

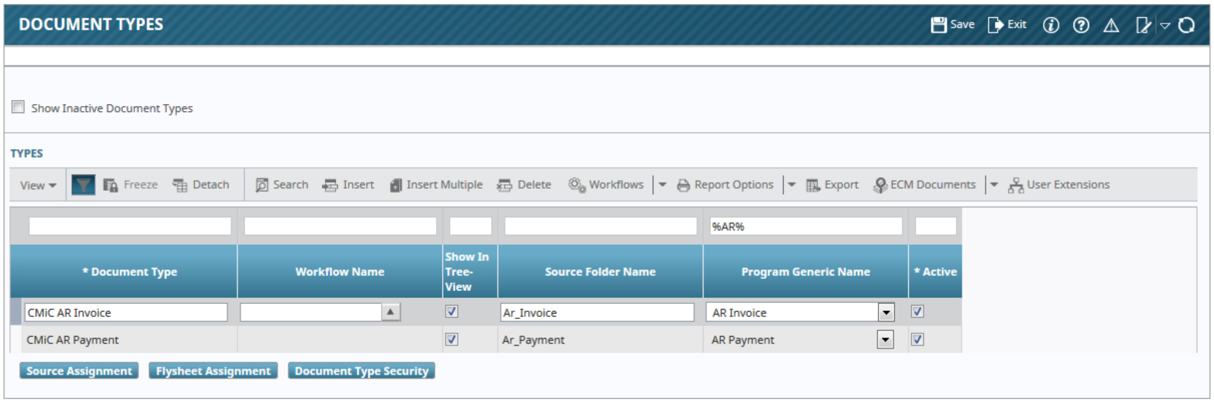
Define Screens Allowing Image Upload

Use the Program Generic Name column to define the screens which will allow image upload. This can be found on the Document Types screen of Imaging (Setup > Document Types).

Examples are shown below for GL, JC and AR.



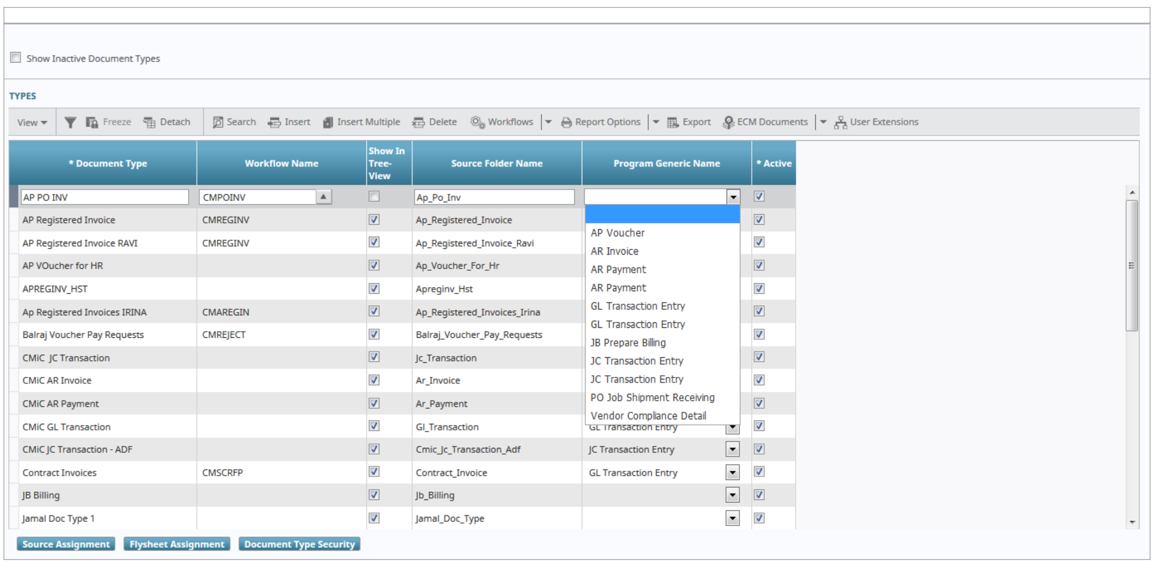


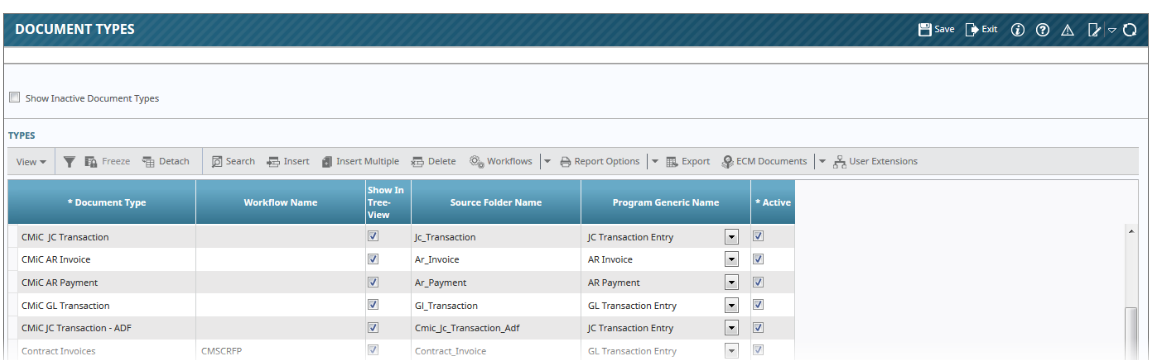


Those for GL, AR, JC, and JB have already been set up as part of the basic setup.

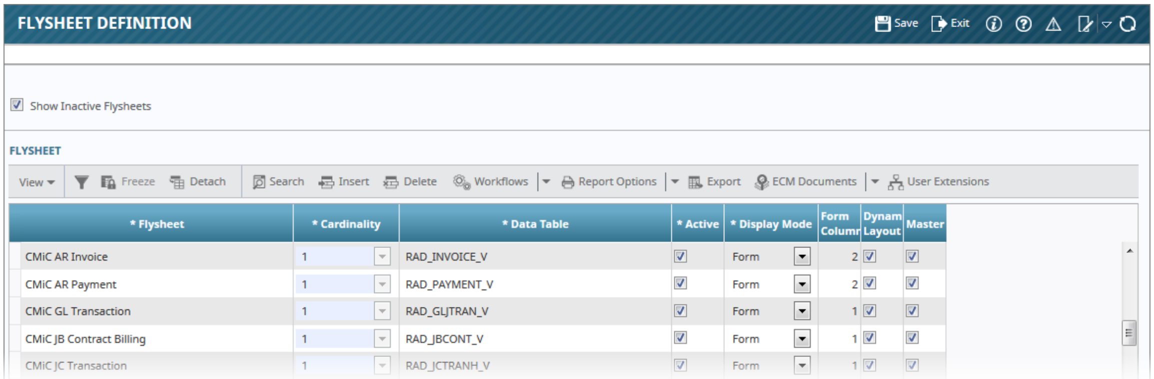
Create Imaging Document Types

Create imaging document types for each screen that will have the image upload, and assign the program generic name accordingly.



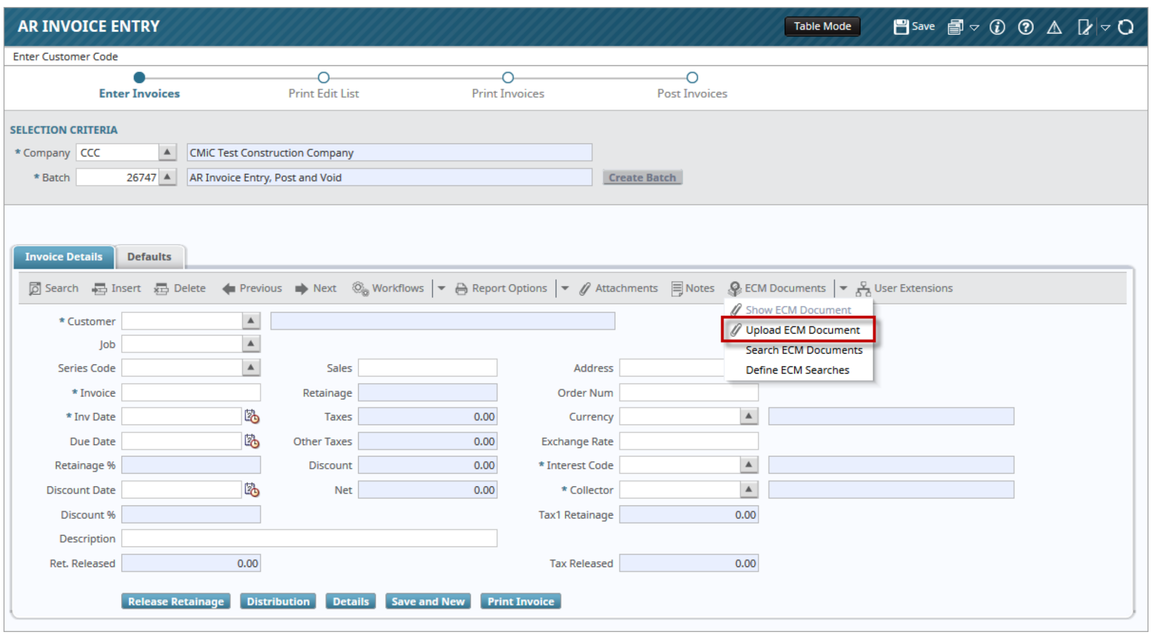


The flysheet definitions for these document types are initially inactive and must be activated in order to be used. Check that the flysheets are assigned to the appropriate document types.



Remember to assign source and imaging security for each document type.

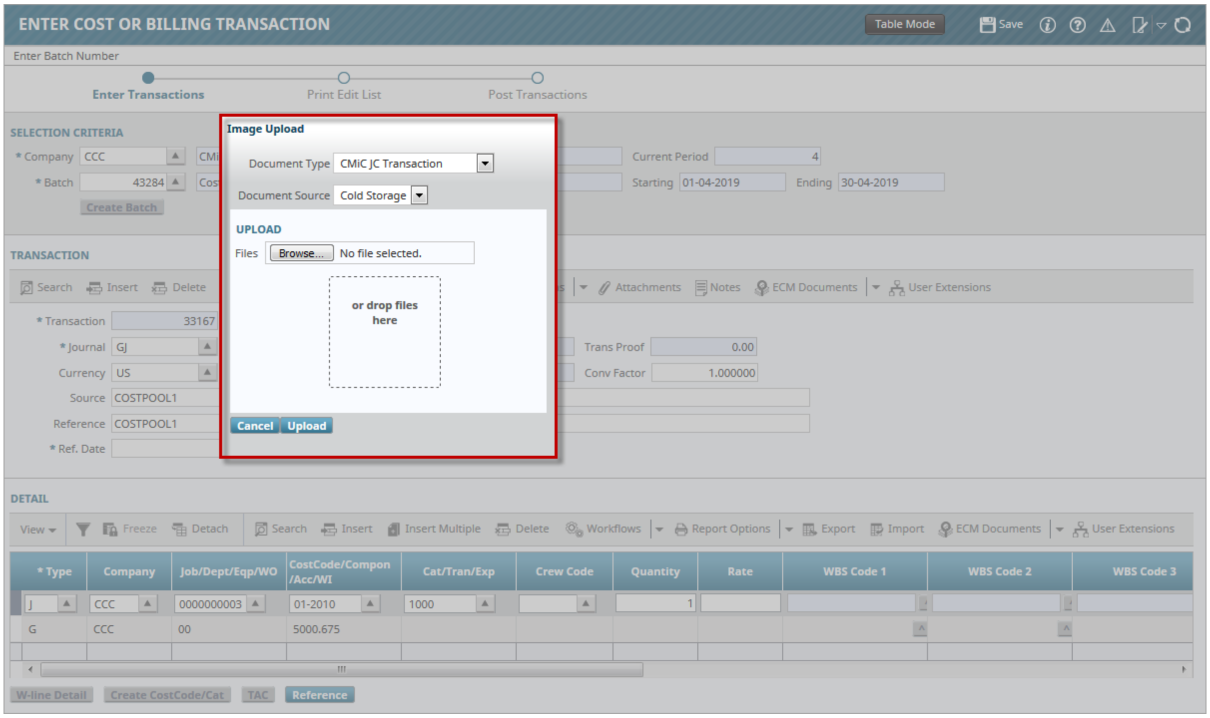
Upload ECM Document



Pgm: ARINVFM – AR Invoice Entry; standard Treeview path: Accounts Receivable > Invoice > Enter Invoices – [ECM Documents] button – Upload ECM Document option

The “Upload ECM Document” option will only respond when clicked if the form has been defined in the Program Generic Form column and the object OraSeq matches.

Uploading Images



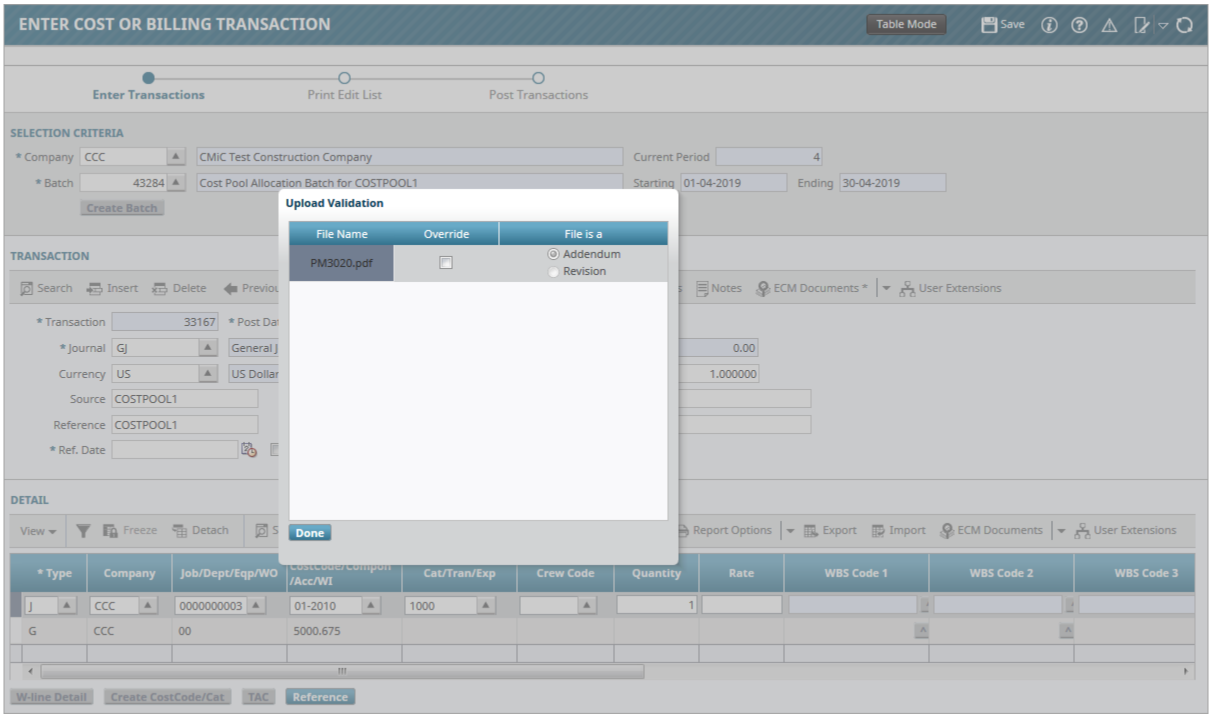
Sample of Image Upload pop-up window using the "Upload ECM Document" option

The Image Upload pop-up window is shown with the Document Type field defaulting according to the current screen.

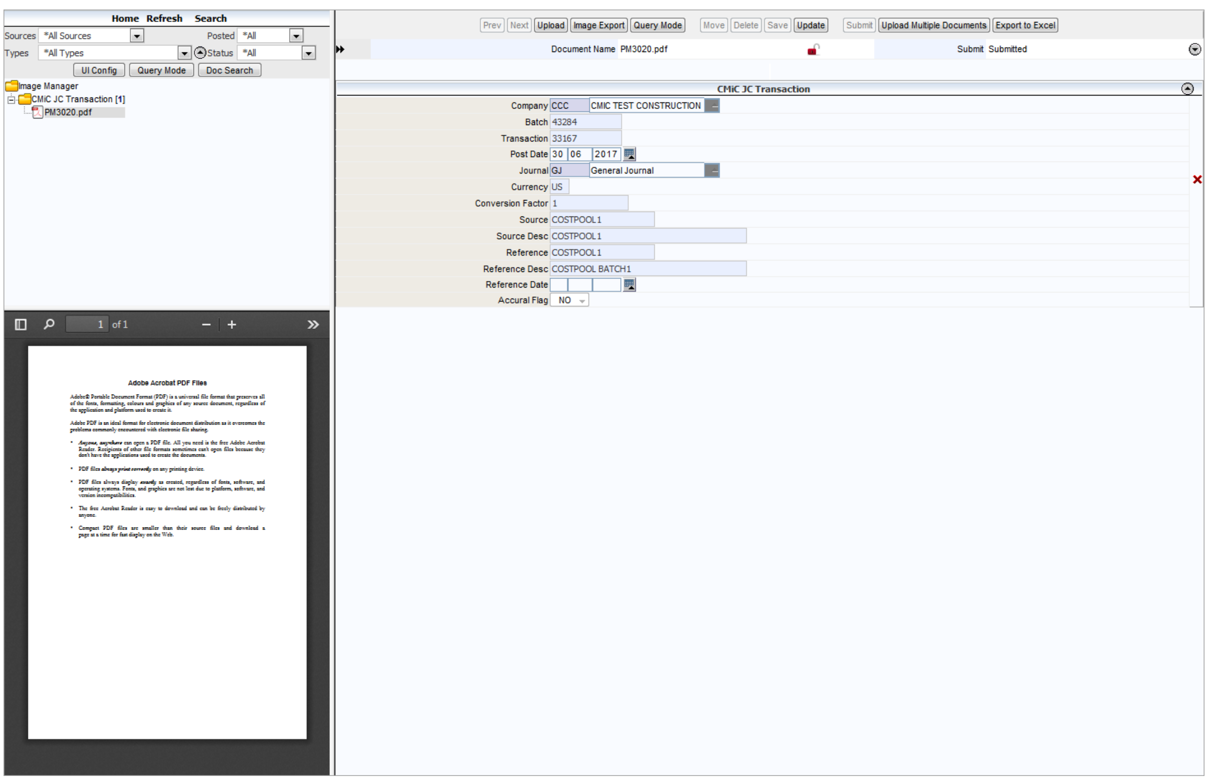
The Document Source field also defaults based on the document type definition.

Use [**Browse**] to select the image file that is to be uploaded. Original documents or revisions can be loaded.

The [**Upload**] button will load the image. If an image already exists, it will upload after the user indicates whether it is an addendum or a revision. If the action is cancelled, no upload takes place.



After adding images to the transaction, the screen will refresh and an asterisk (*) will appear next to the [**ECM Documents**] button. The “Show ECM Document” option will also become enabled if no images were previously available. Click on “Show ECM Document” to open the Image Manager and display the file that was uploaded.



Process Description

- The user will enter the transaction using a transaction screen, e.g. GL Transaction Entry, JC Transaction Entry, etc.
- Should there be a need to link an image to the transaction, the user will use the [**ECM Documents**] button to browse and select the file.
- The system will upload the file and send the file info along with the object-key of the transaction to the Imaging controller.
- The Imaging controller will place the file into the correct document type and folder on the network, and link the image to the transaction using the object-key.
- When the batch for the transaction is posted, the posting process will look for a matching Imaging record using the object-key.
- If there is a matching Imaging record, the Imaging key (IMG_ORASEQ) will be added to the sub-ledger record permanently linking the image to the transaction facilitating an image query.

Imaging Security

Security Overview

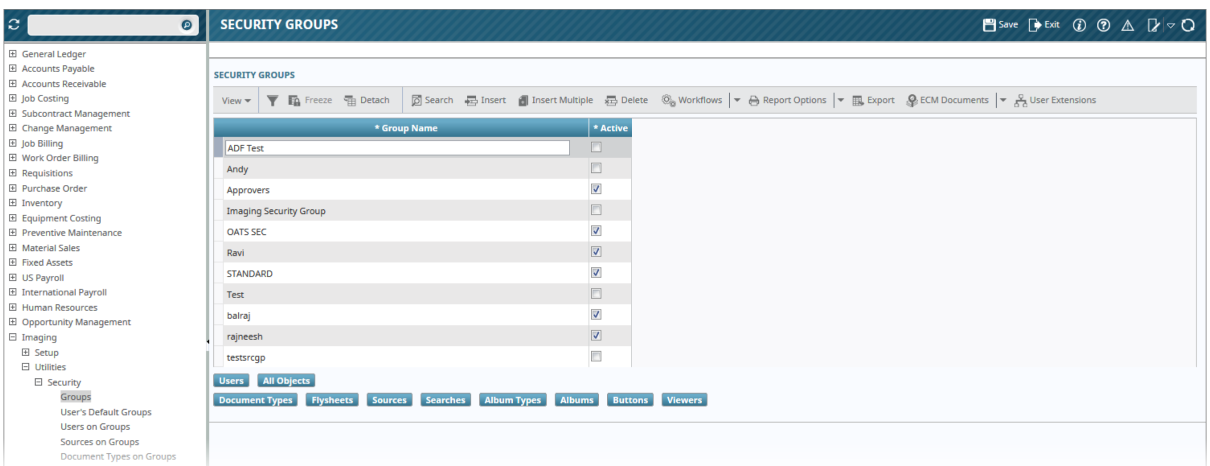
Imaging security is done via security groups and there must be at least one security group defined in order to view any imaging data. The system is shipped with one security group named “Standard”. This group has access to all the pre-defined objects that are delivered with the product.

Groups contain a list of users and then groups are applied to the different types of objects within the Imaging module. Each screen where imaging objects are defined has a link to its related security screens or security can be applied via the Security submenu on the Utilities submenu. Both methods function in the same way.

Within the security system, when users are on a specific record, for example, a security group, if any of the related objects buttons are selected it will show the related details of what is assigned to the group. Plus records can be added while in the related object screen. This means that from the main group screen all of the required security can be setup.

To make it even easier the module accepts the “%” wild card character to mean all – so all objects in a type can be easily defined to a group.

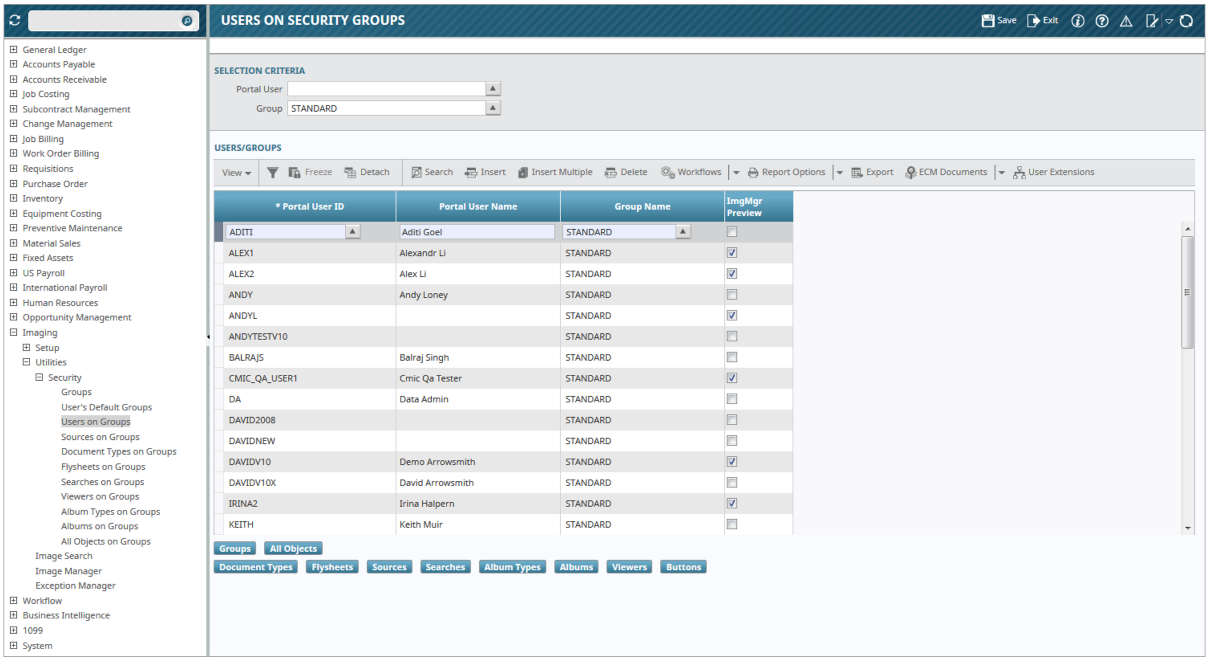
Step 1: **Defining Security Groups**



Pgm: IMGGRP – Security Groups; standard Treeview path: Imaging > Utilities > Security > Groups

All users of the Imaging module must belong to at least one security group. Groups function the same way in Imaging security as they do in Job Costing security – The user only sees what the group has access to. Enter the group name and make sure the ‘Active’ checkbox is set correctly.

Step 2: **Adding Users to Groups**



Pgm: IMGUSRGP – Users by Security Groups; standard Treeview path: Imaging > Utilities > Security > Users on Groups

Adding users to groups allows the user to build their own company unique security groups. The users being added are portal users which are not necessarily database/enterprise users. This allows the user to have customers/owners and suppliers access to parts of the Imaging module. For example, the user may want suppliers to enter certain flysheet data regarding their invoice and to place the invoice in their inbox.

Enter the portal user name and the group will automatically default if called from the Security Groups screen otherwise enter the group name.

Step 3: **Applying Object Type Security**

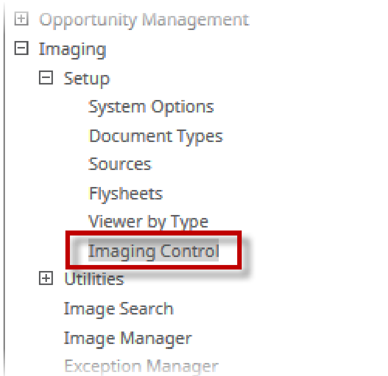
Once you have users assigned to groups the easiest way to apply object type security is to return to the Security Groups screen, select the group, and apply the object types by using the buttons to the right.

This may be done all at once via the [**All Objects**] button or each related item within each object can be assigned to the group individually via the related object type buttons for document types, flysheets, sources, searches, album types, albums, buttons, and viewers. Alternative, the object type security groups can be accessed from the Treeview.

Remember – if a specific user requires unique security then that user should probably be a group by themselves.

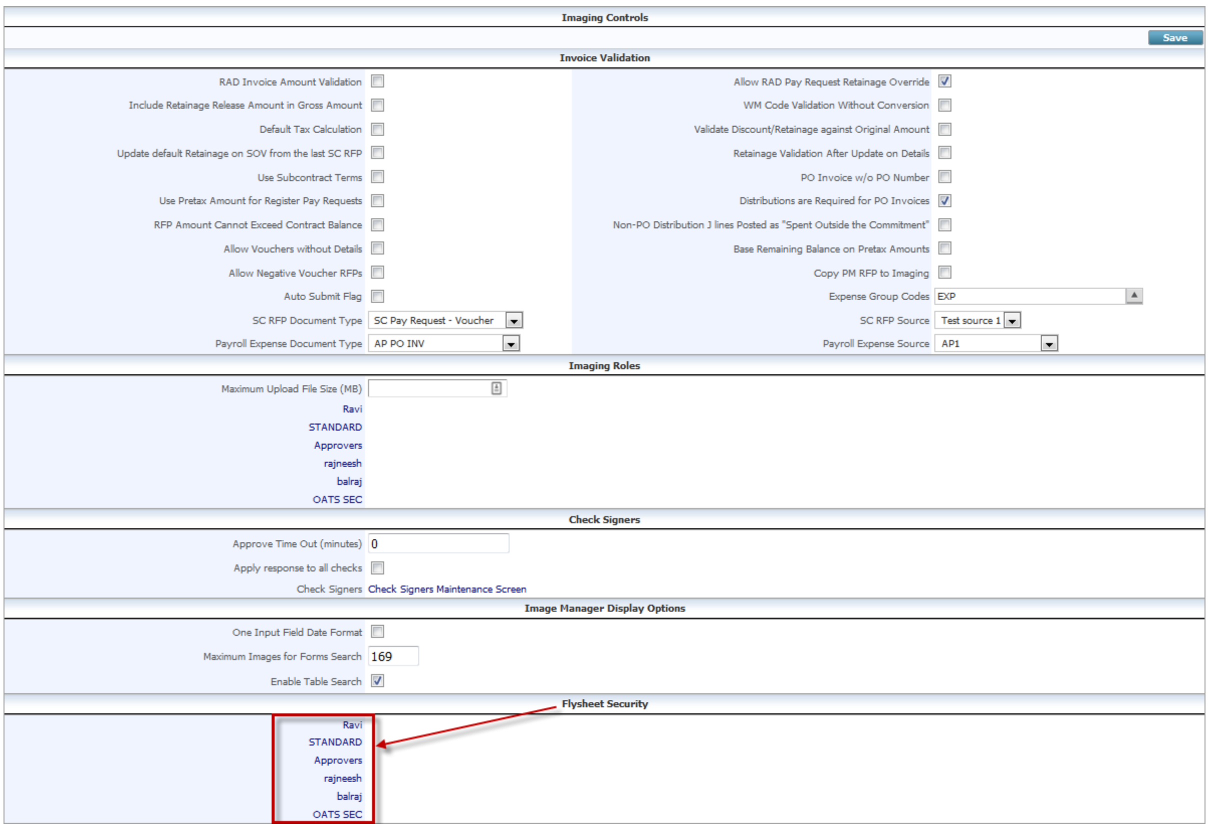
Flysheets Security

To access the Imaging module's flysheet security, select the Imaging Control submenu under Imaging > Setup from the Enterprise Treeview.



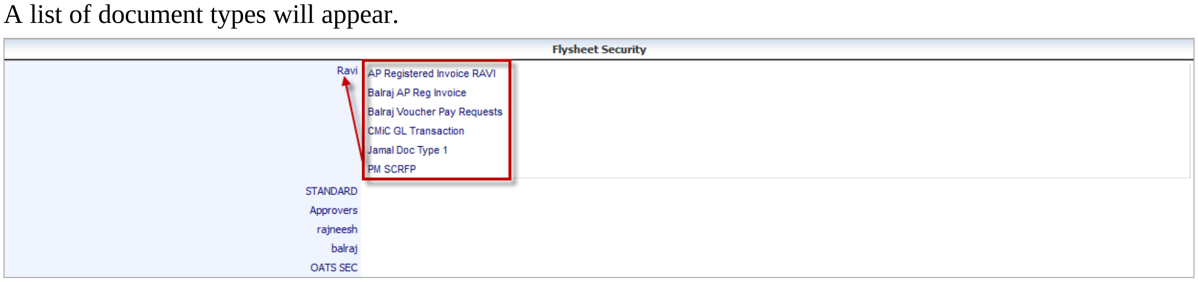
Standard Treeview path: Image > Setup > Imaging Control

Click on the security group to be administered.



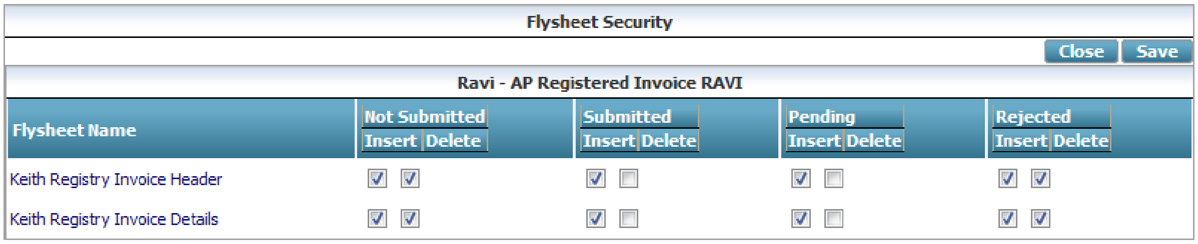
Imaging Controls – Flysheet Security section; standard Treeview path: Imaging > Setup > Imaging Control

A list of document types will appear.



Flysheet Security – Document types associated to group selected

To apply the security options related to the flysheet, click on the document type. From the resulting display, assign/remove the checkbox to set the security options for that particular flysheet.



Sample Flysheet Security Settings Related to AP Registered Invoice document type

The above example states that the members/users of the Ravi security group have this access:

- Full insert/update/delete access for all documents in the Not-Submitted status.
- Only insert privileges for all documents in the Pending status.
- Only insert privileges for all documents in the Submitted status.
- Full insert/update/delete access for all documents in the Rejected status.

Flysheet Security Descriptions

Insert

Users can add information to the flysheet while the document has that status.

Delete

Users can delete information on the flysheet, however cannot add.

No Insert and delete

Users can view only.

Cold Storage

Overview – Cold Storage

Cold storage allows the user to store any report printed from either CMiC enterprise screens or CMiC JSP modules. Reports stored using this method can be reviewed and opened via the Image Manager.

The advantage of cold storage versus manually saving a previewed report is that the report will be saved on a server in one of the predefined cold storage directories according to the document type defined, so that they can easily be found and accessed at a later date. This also means that the document can be retrieved using the image search function available within screens.

There are two types of cold storage – PM document cold storage and other documents cold storage.

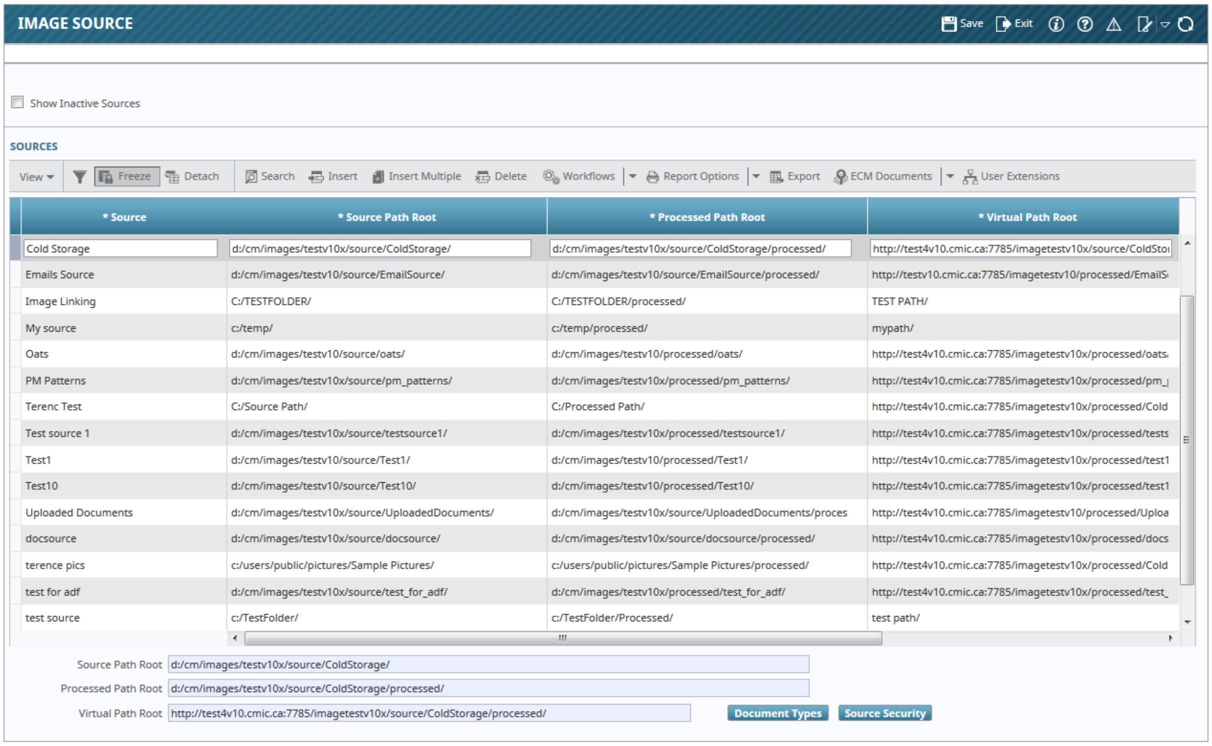
PM cold storage – This will automatically attach the report to the project so it becomes part of the project documentation plus make it available via the Imaging module.

Other documents cold storage works in CMiC Enterprise screens and other JSP modules. This option stores the document along with the flysheet key data in the Imaging module.

Defining Cold Storage Source

A system can have many different sources for documents, but only one of the sources can and must be defined as the cold storage source.

NOTE: In a future release more than one source will be available to the cold storage function.



Pgm: IMGSRC – Image Source; standard Treeview path: Imaging > Setup > Sources

Check the ‘Cold Storage’ checkbox against the appropriate existing source or create a new source just for cold storage.

If a new source has been created, click the [**Source Security**] button to assign source security as required.

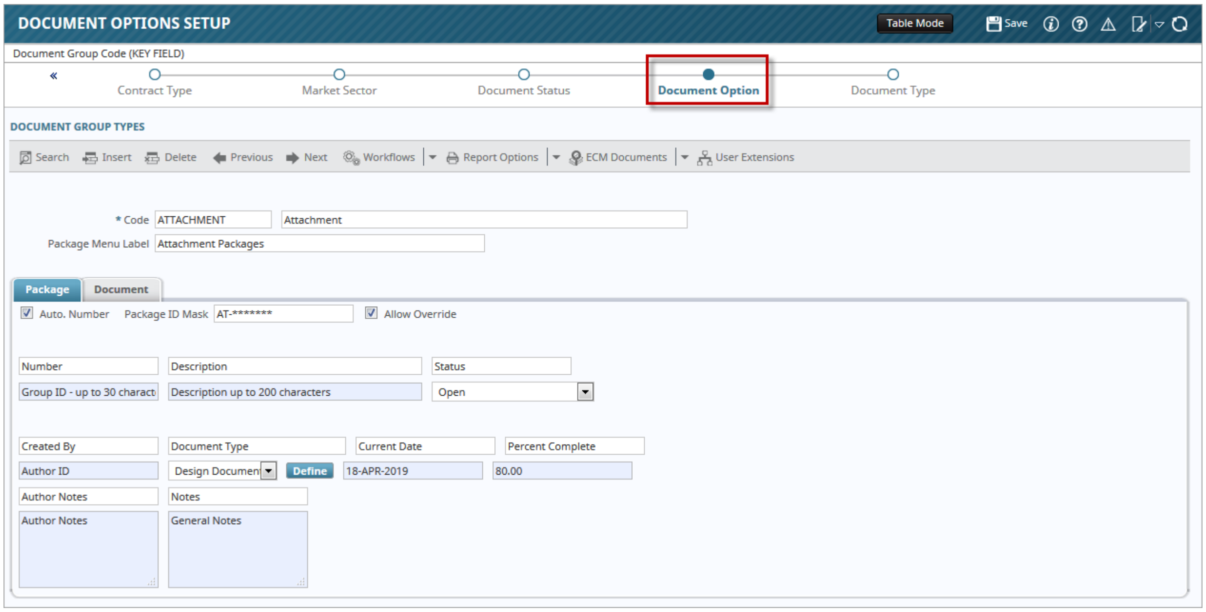
Defining PM Cold Storage for Documents

Whenever a new PM document type is created the system will automatically create the related required data to handle cold storage for the document type. All pre-existing document types will have had this same information created during the installation of this cold storage functionality.

Cold storage for PM documents done by simply activating already created Imaging document types and flysheets and assigning them to an active cold storage document source.

Step 1: (Optional) Create PM Document

1. Open the System > Global Tables > Maintain Data Process > Document Options node.
2. Create a new PM Document Type by clicking the [**Add New**] button.



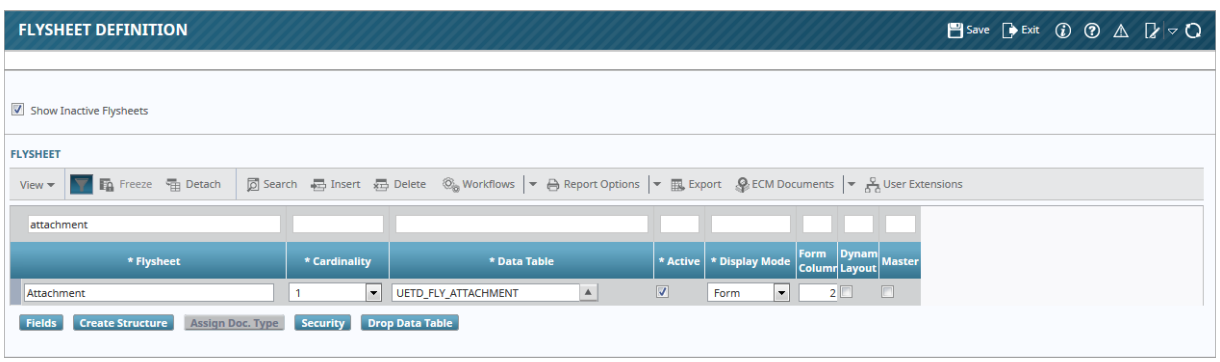
Pgm: PMOPTFM – Document Options Setup; standard Treeview path: System > Global Tables > Maintain Data Process – Document Options node

3. Update the Documents tab with the required fields and save the changes.

The system will automatically insert a matching document type and flysheet definition into the Imaging module with the status of "Active". All pre-existing document types will have had this same information created during the installation of this cold storage functionality.

Step 2: Verify and Activate the Fly Sheet

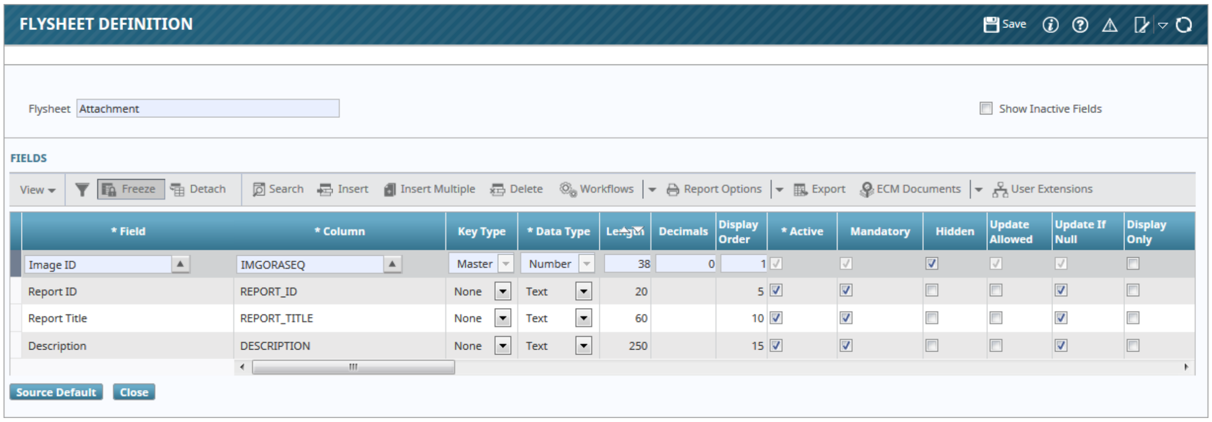
1. Open Imaging > Setup > Flysheets on the Treeview.
2. Check the 'Show Inactive Flysheets' checkbox then query the data.



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

3. Use the [**Fields**] button to open up the details of the flysheet.

The system will have created the flysheet definition to match the active fields on the document type. Review the definition and add fields if required – fields removed here only affect Image Manager.

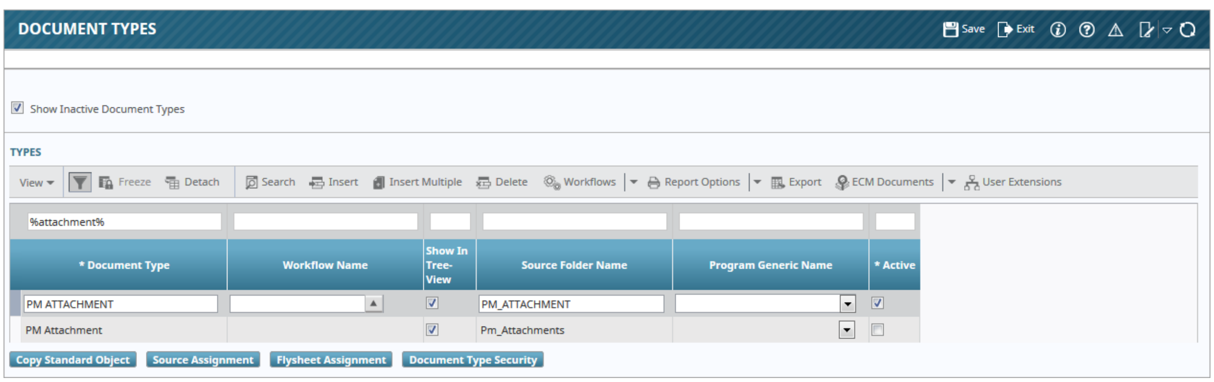


Pgm: IMGFLYFM – Flysheet Definition; standard Treeview path: Imaging > Setup > Flysheets – [Fields] button

4. Save and return to the main Flysheet Definition screen.
5. Create the flysheet by using the [**Create Structure**] button.
6. Add security as required to the flysheet via the [**Security**] button.
7. Save and exit.

Step 3: Activate Document Type

1. Open Imaging > Setup > Document Types on the Treeview.
2. Check the 'Show Inactive Document Types' checkbox then query the data.



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

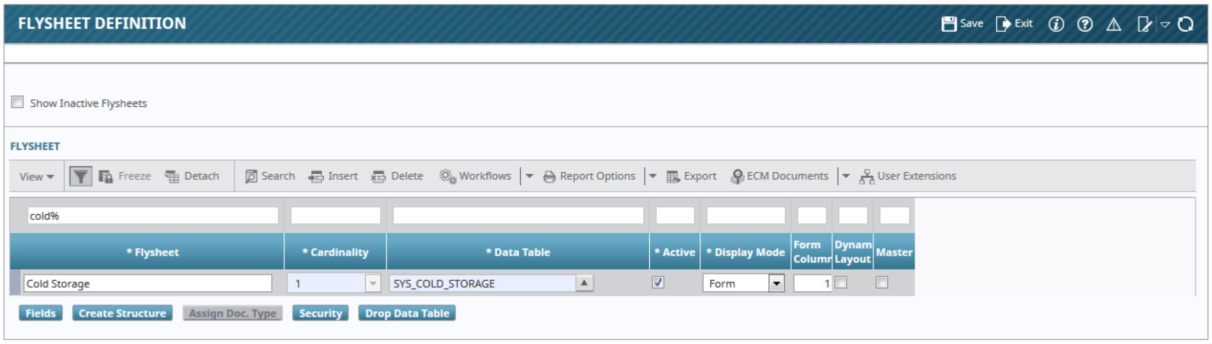
3. Mark the document type as active.
4. Apply security to the document type via the [**Document Type Security**] button as required.
5. Apply the cold storage source to the document type via the [**Source Assignment**] button.
6. Apply the flysheet to the document type via the [**Flysheet Assignment**] button.
7. Save and exit.

Defining Cold Storage for Non-PM Documents

This type of cold storage is for any report that is not printed from within the CMiC Field module. The system has a predefined flysheet designed specifically for this purpose.

The user may create as many cold storage document types as required. For example, the user may create one for AP Year End reports, GL Year End reports, JC Year End reports, etc.

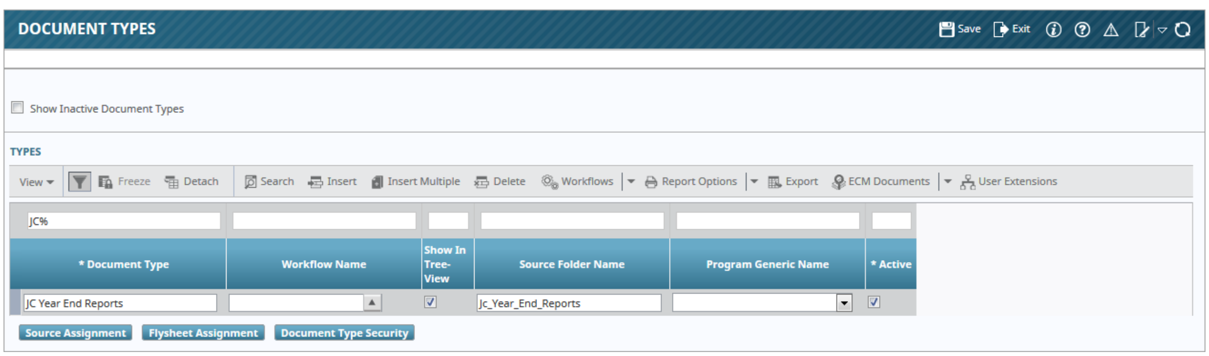
Step 1: Activate the Cold Storage Flysheet



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

1. Open Imaging > Setup > Flysheet on the Treeview.
2. Check the ‘Show Inactive Flysheets’ checkbox then query the data.
3. Create the flysheet by using the [**Create Structure**] button.
4. Add security as required to the flysheet via the [**Security**] button.
5. Mark the flysheet as active.
6. Save and exit.

Step 2: Create a Document Type



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

a) Open Imaging > Setup > Document Types on the Treeview.

b) Create the document type and mark it as active.

c) Apply security to the document type via the [**Document Type Security**] button as required.

d) Apply the cold storage source to the document type via the [**Source Assignment**] button.

e) Apply the flysheet named cold storage to the document type via the [**Flysheet Assignment**] button.

f) Save and exit.

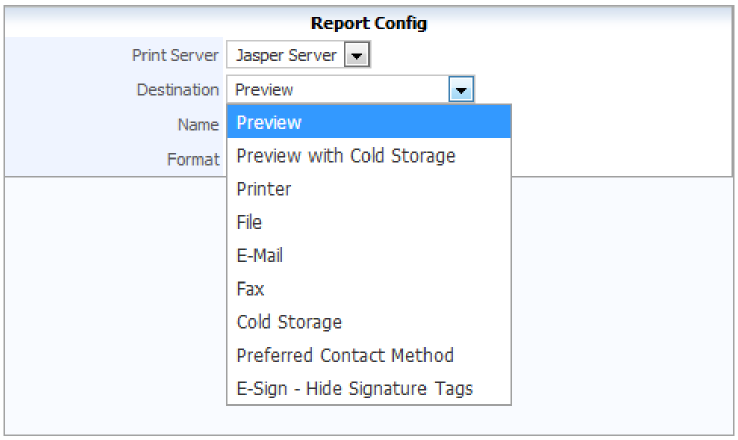
Printing to Cold Storage

When printing any report within the system, the user may select to cold store the report. This is done on the Report Parameter screen.

There are two new options available “Preview with Cold Storage” and “Cold Storage”.

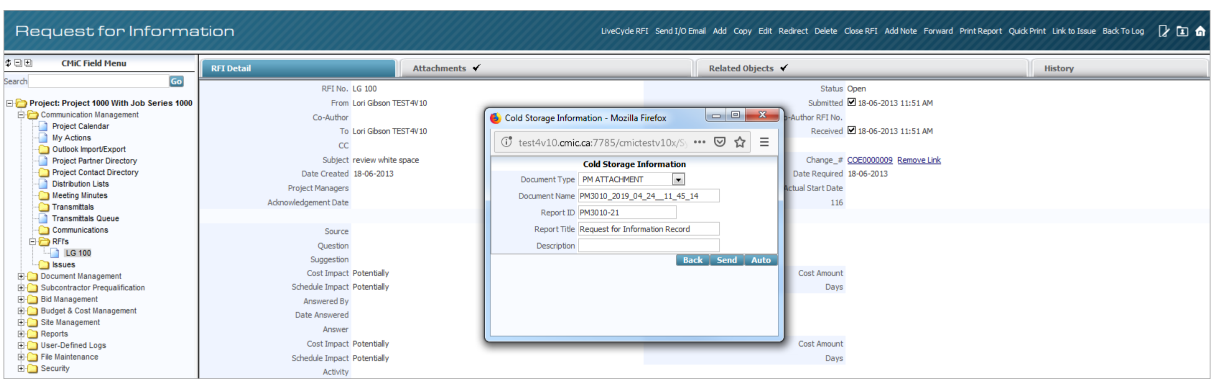
The “Preview with Cold Storage” option will display the report in PDF format and save the report to cold storage, while the “Cold Storage” option does not display the report to the user, it just saves it to cold storage.

JSP – Report Configuration Screen



Sample of RFI – [Print Report] button pop-up window

If either of the two cold storage options are selected, a second screen will display.



The cold storage information that can be entered is:

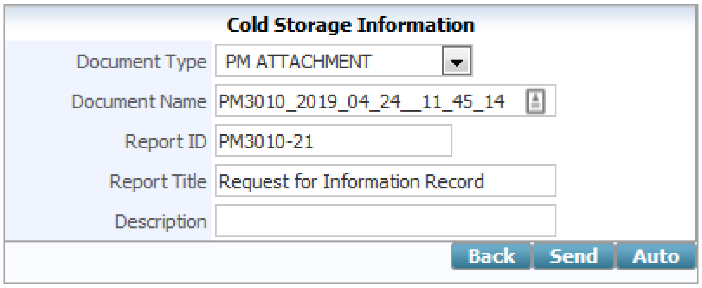
Document Type: This is a drop-down list of valid document types. The document type must have been previously defined and is limited to those document types that are linked to cold storage via either their setup or by virtue of being a PM document.

Document Name: This field is prepopulated with the name of the report and the date and time – as an example PM3010_2019_04_24__11_45_14 – This can be changed to anything – but it cannot contain special characters such as “/” or “|”. This is the actual name of the PDF file that will be created.

Report ID: This field is prepopulated with the CMiC report code, but this may be changed as required.

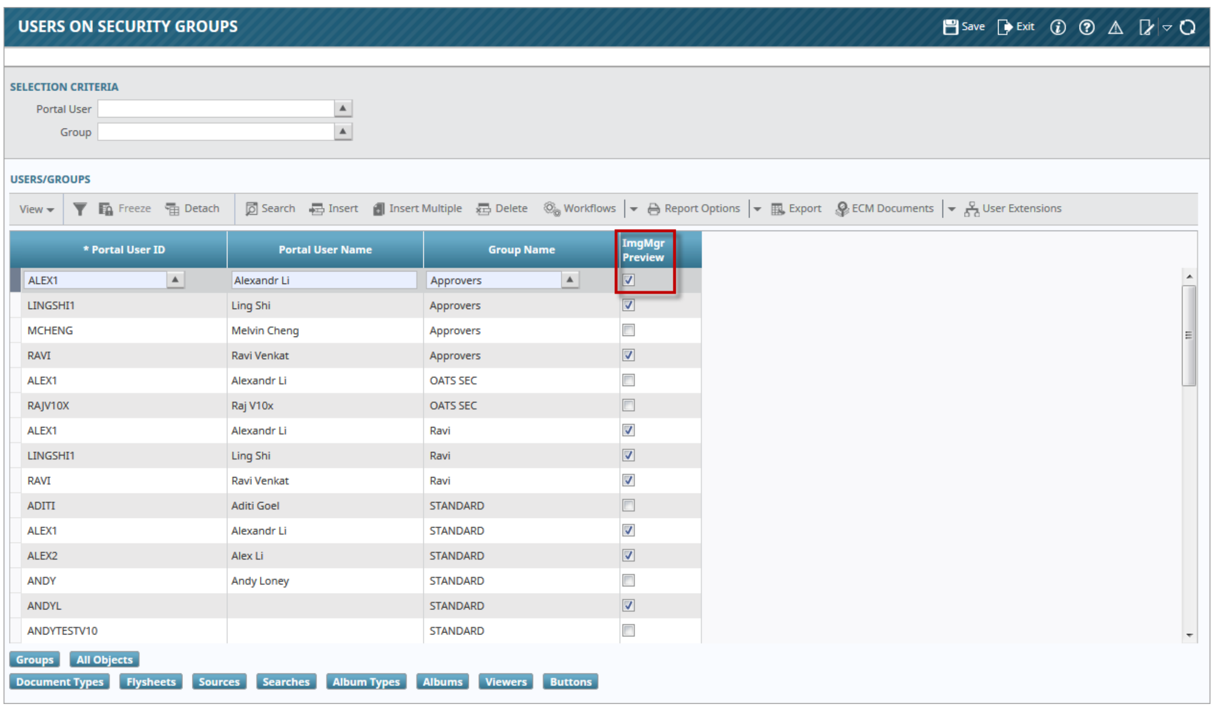
Report Title: This field is prepopulated with the CMiC report name but may be changed as required.

Description: This is a free form field that can be used to describe the report. This description should somehow link the report to something in the system such as a vendor code or a job code if appropriate – then the image search function will be able to find the report as a related image.



Setting User Preview Defaults

When previewing cold storage documents the user has two choices, they can preview it directly in Adobe just like any other report or they can preview it within the Image Manager. This is a setting defined on the Users on Security Groups screen.



Pgm: IMGUSRGP – Users on Security Groups; standard Treeview path: Imaging > Utilities > Security > Users on Group

If the ‘ImgMgr Preview’ checkbox is checked, whenever the user selects to print to “Cold Storage with Preview” the preview of the report will be done within the Image Manager. This allows the user to view the flysheet attached to the report at the same time as viewing the report.

Appendix A

Scheduled Tasks

In order for the system to copy process images placed in the source directories to the processed directories, there must be a batch file running. This batch file is created by the system and resides in the **d:\cm\ias\oc4j\ptf2005\bin** directory. There will be one batch file for each of the user's environments. The batch file name is **<Env>_RegisterImgages.bat**.

This batch file must be invoked by a system scheduled task. The frequency should be set to once a minute.

Appendix B

Image Protection Server Configuration

Use this configuration to protect the Imaging document sources with SSO.

Update *d:\cm\ias\j2ee\ENV_NAME\conf\ENV_NAME_jsp.conf* file and add the following directive.

(Example of the path to conf file in PROD env: d:\cm\ias\j2ee\prod\conf\prod_jsp.conf)

Add the following line if all images are being accessed by /imageENV_NAME/ alias.

Example of the alias for /imageENV_NAME/:

<LocationMatch /imageENV_NAME/*>

require valid-user

AuthType Osso

</LocationMatch>

Example for PROD is /imageprod/:

<LocationMatch /imageprod/*>

require valid-user

AuthType Osso

</LocationMatch>

Restart OHS server and retest it.

Please don't forget to back up the configuration file before it's modified.

Appendix C

Backfilling Images for Existing Transactions[1]

This feature is used to backfill images for existing transactions. It is only available for SC RFP imaging document types. Normally the files copied into the source directory can have any name, but if the name encodes the company/vendor/invoice number of an existing invoice voucher in the system and a control flag is set, the registration will automatically link that image to the pre-existing invoice rather than an empty flysheet.

This process takes place only if the value of the IMGSO_LINK_DOC_TO_VOUCHER_FLAG field in the Imaging controls table (IMG_SYSTEM_OPTION) being "Y". There is currently no user interface to set this field, so CMiC will have to update it for the user.

For example, to link an image to a pre-existing voucher in the system, complete the following steps:

1. Create the images as separate files (PDF, JPG, etc.). The image file names encode the invoice key information as "ccc-vvv-iii" where each of the fields are represented as follows:

    - "ccc" is the company code
    - "vvv" is the vendor code
    - "iii" is the invoice number

    NOTE: Fields must not contain embedded blanks, and "ccc" and "vvv" must not contain embedded hyphens.

2. Copy these image files into the source directory corresponding to the source and document type used in the Image Manager setup.

3. If a voucher matching the company code, vendor code, and invoice number exists:

    a. The scanned image will be registered as already submitted in Imaging and linked to the voucher via the oraseq columns so the voucher contents will appear in the flysheet when the file name is selected in the Image Manager Treeview.

    b. If the voucher has been posted, the image will also be marked as posted.

    c. If the voucher found in step 3 is already linked to an image, the new image will not be linked to it, but will be registered in Imaging as rejected, effectively creating a log of rejected images.

[1] This is not standard v10x functionality and will be available in R12.

Appendix D

Setting SOV Lines as Taxable and Not Taxable

If the flysheet is automatically updating the entered pretax amount in all SOV lines to include the use tax amount when it's not required, the SOV lines for the subcontract should be set up so that some lines are taxable, and some lines are not taxable.

In order to use this functionality, the subcontract should be set as follows in the Modify Original Contract screen (standard Treeview path: *Subcontract Management* > *Utilities* > *Modify Original Contract*).

1. For the SOV lines which are taxable, select the tax code and check the 'Taxable' box.
2. For the SOV lines which are not taxable, select the tax code and uncheck the 'Taxable' box. Doing this will automatically add an asterisk to the tax code (e.g. if the tax code is PA, it will change to PA*) after the changes have been posted, which means this SOV line is not taxable.

For more information on the Modify Original Contract screen, please see the *Modify Original Contract* section in the *Subcontract Management* guide.

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