101-std-frm-010 Workflow Multimedia Scanning Queue
Govern V6

Release 6.0 Version 1
Last Revision Update: 3/30/2017

DOCUMENT AUDIT REVISION HISTORY				
Version	Date	Authors	Release	Changes
1.0	2017-03-14	Olusegun Olaniyan	6.1 Rel. 1703.07	Document creation

Table of Contents

OVERVIEW

The purpose of the document queue is to serve as a placeholder for Multimedia documents that are to be added to a record at a later time. For example, a lineup of applicants are waiting to apply for permits or licenses, as the forms are filled out there may not be sufficient time to go through the process of scanning their required support documents for the application. As their record is completed, the scanning or importing attachment process for their multimedia documents are sent to the scanning queue. The will be attached at a later time. When the attachment process is ready to be completed, the Multimedia Scanning Queue presents the list of documents. Each document is selected on the list, and the scanning/import is performed. As each item on the list is processed, it is removed from the queue.

NOTE: The driver for the scanner being used must be *Windows Image Acquisition* (**WIA** compliant)

Functionalities

The *Multimedia Scanning Queue* is a custom control that allows users to "build up", or "Queue up" a list of required documents for any Govern module. Although the title reads as *Workflow Multimedia Scanning Queue*, in actuality the feature is not dependent on the Multimedia function.

The Multimedia Scanning Queue action generates a multimedia document for the scanning queue that is related to a workflow. This action is performed according to the parameters defined in the *Govern New Administration* (**GNA**).

NOTE: This is not a generic action, and can only be invoked in the context of a workflow. This action is only functional when the category's entry key type is a P_ID, or an NA_ID. USER_ID or DEPT_ID are not used.
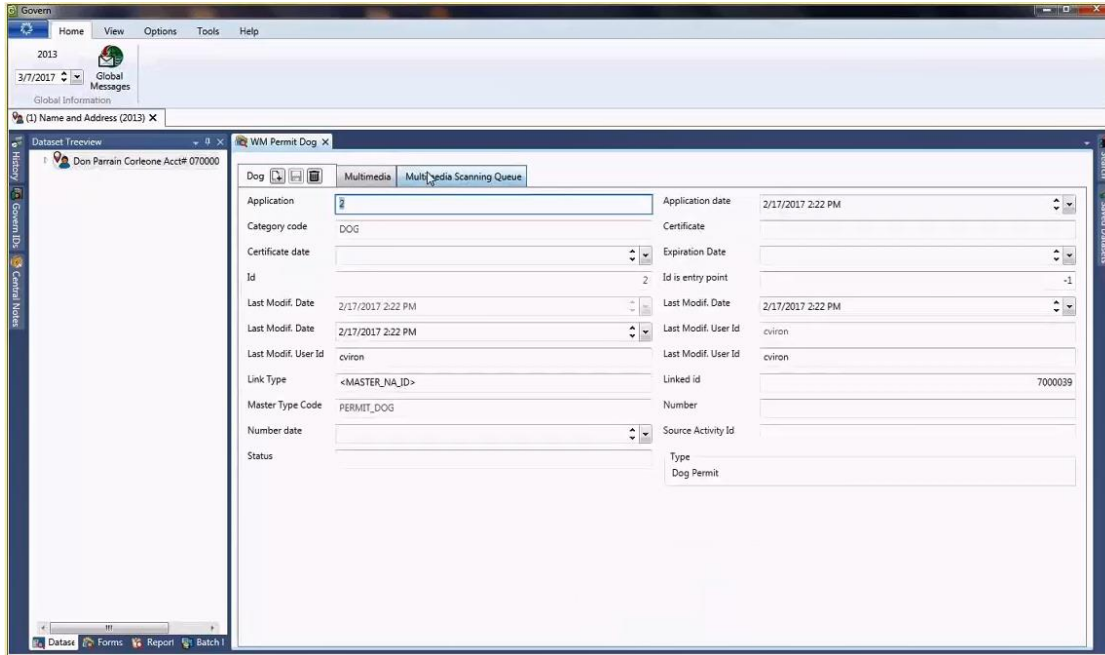
The *Multimedia* function may be configured to work in tandem with the *Multimedia Scanning Queue* in *Govern*. This function can be used to control individual scans, or to control scanners that perform bulk scanning duties; the condition is that the installed driver for the scanner is WIA compliant.

The Multimedia scanning queue is a grid that displays a list that will require documents to be attached to them.

Example

As an example in a Workflow that results in the generation of a license, users can create a principal form workflow permit type. In addition to the principal form, the form will consist of two custom entities, the *Multimedia*, and the *Multimedia Scanning Queue*.

NOTE: Placing the *Multimedia* and *Multimedia Scanning Queue* custom entities together on the same form is not a requirement for functioning. As mentioned earlier, the *Multimedia Scanning Queue* entity can function independently of the *Multimedia* custom entity.
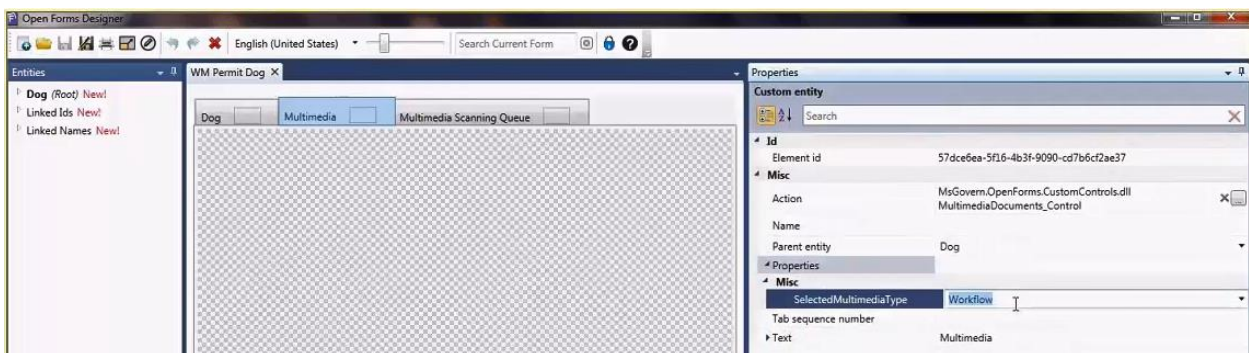
CONFIGURATION

The following steps are used to configure the form in order to ensure proper functioning.

OpenForms Designer (OFD)

As stated, Multimedia, and Multimedia Scanning Queue are both custom entities. When configuring the Multimedia entity, you would have to choose a parent entity, and set the selected multimedia type, e.g. in OFD configuration, the value of **SelectedMultimediaType** = **Workflow**, in the case of the *Multimedia Scanning Queue*, the configuration of a *Parent Entity*, or *Property* is not required.
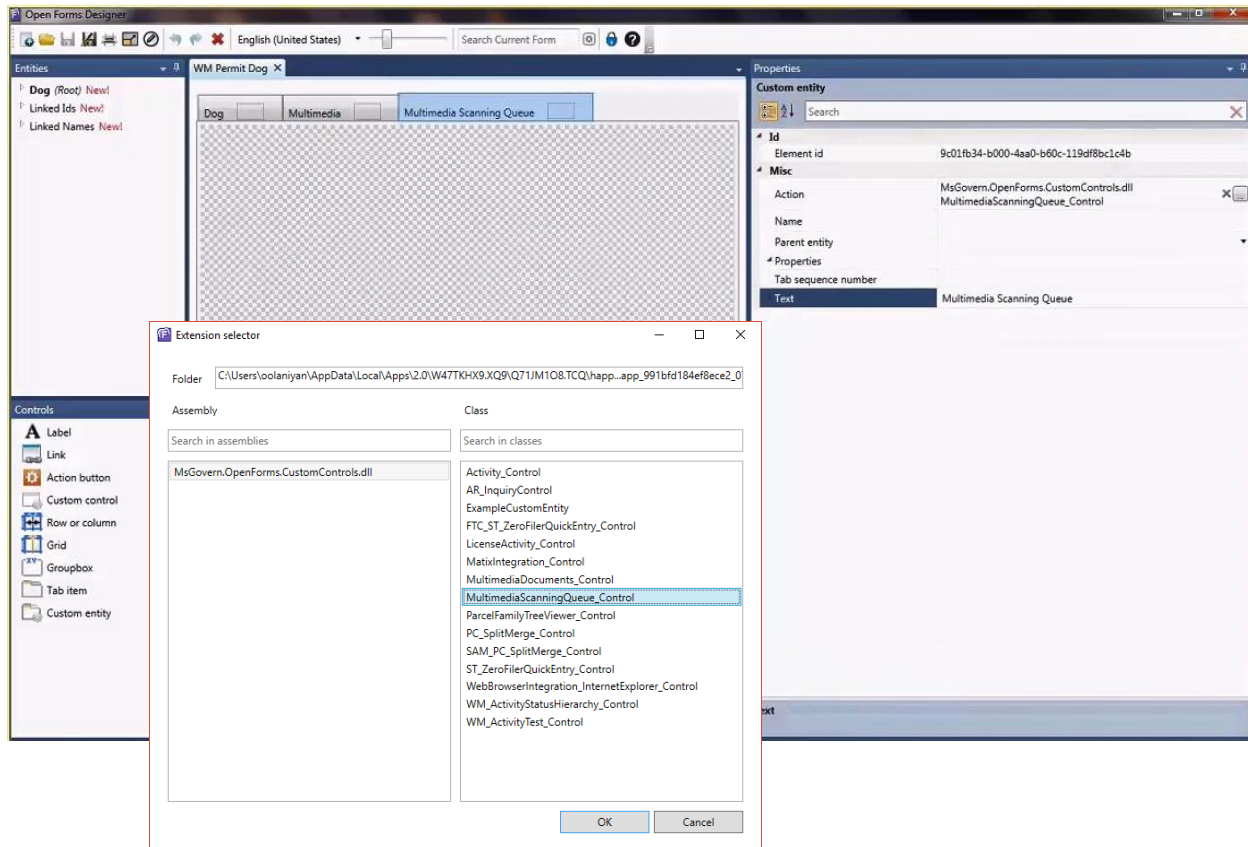
OFD Properties

Properties			Value
Custom Entity			
ID			
	Element ID		Generated by system
Misc			
	Action		MsGovern.OpenForms.CustomControls.dll MultimediaScanningQueue_Control
	Name		
	Parent Entity		
	Properties		
		Tab sequence number	
		Text	Multimedia Scanning Queue (User defined name)

Extension Selector

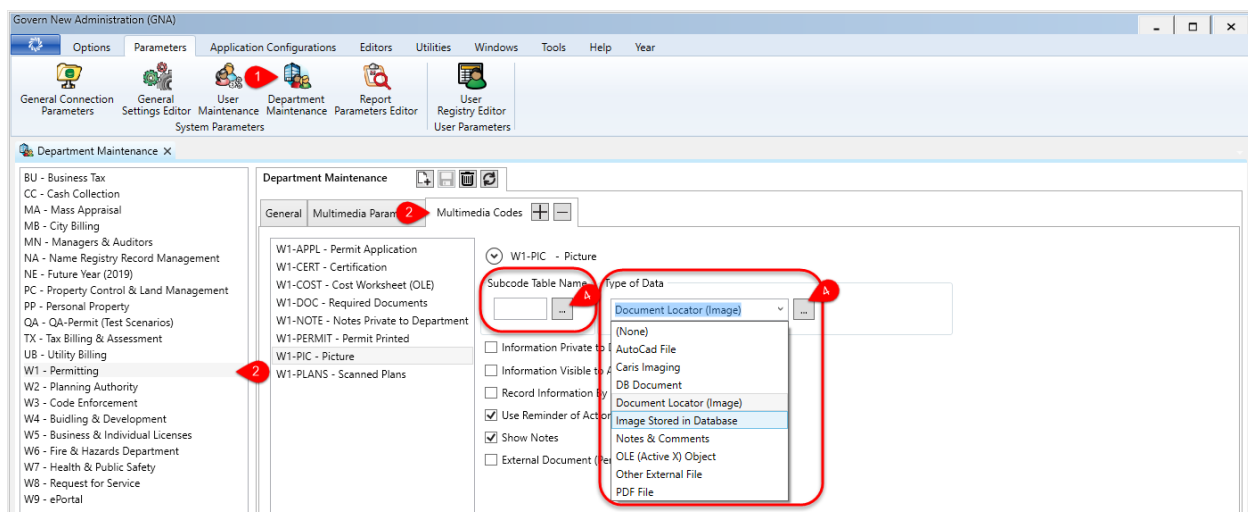This is displayed when the ellipsis button [...] at the end of the Action parameter is selected

Assembly	Class
MsGovern.OpenForms.CustomControls.dll	MultimediaScanningQueue_Control

As stated, Multimedia, and Multimedia Scanning Queue are both custom entities. When configuring the Multimedia entity, you would have to choose a parent entity, and set the selected multimedia type, e.g. in OFD configuration, the value of **SelectedMultimediaType** = **Workflow**, in the case of the *Multimedia Scanning Queue*, the configuration of a *Parent Entity*, or *Property* is not required.

About Multimedia Codes

As stated earlier, The Multimedia Queue action will only work if the category's entry key type is a P_ID or an NA_ID. The action can be triggered at any time, but the following conditions must be met.

Required Conditions

A department with Multimedia Codes must exist.

Govern by default has a series of default data types. These types are found in (Table: VT_SYSTEM) in the FF_TYPE column. They are accessed under the **Type of Data** group of the *Department Maintenance*, **Multimedia Codes** tab.

Table of Default Govern Data types

	Code	Type (Filetype)
1	"A"	"AutoCad File"
2	"C"	"Caris Imaging"
3	"D"	"DB Document"
4	"F"	"Document Locator (Image)"
5	"I"	"Image Stored in Database"
6	"O"	"OLE (Active X) Object"
7	"P"	"PDF File"
8	"T"	"Notes & Comments"
9	"X"	"Other External File"

When codes are created, in order for them to be supported by the Multimedia Document Queue, they must be of the following two file types:

- **F** – Document Locator (Image); i.e. a file located external to the database.
- **I** – An image stored within the database.

The **Document Type** must be defined in the GNA Department Maintenance as Type "I" or "F". *See the Table of Govern Default Data Types above.*

NOTE: In the interface, there is an option in the Type of Data group; a click on the ellipsis button […] will display the System Code Editor with the available codes for selection in the FF_TYPE column.

Create Multimedia Codes

These codes are created in the GNA Department Maintenance form under the Multimedia Codes tab. To create required codes in GNA:
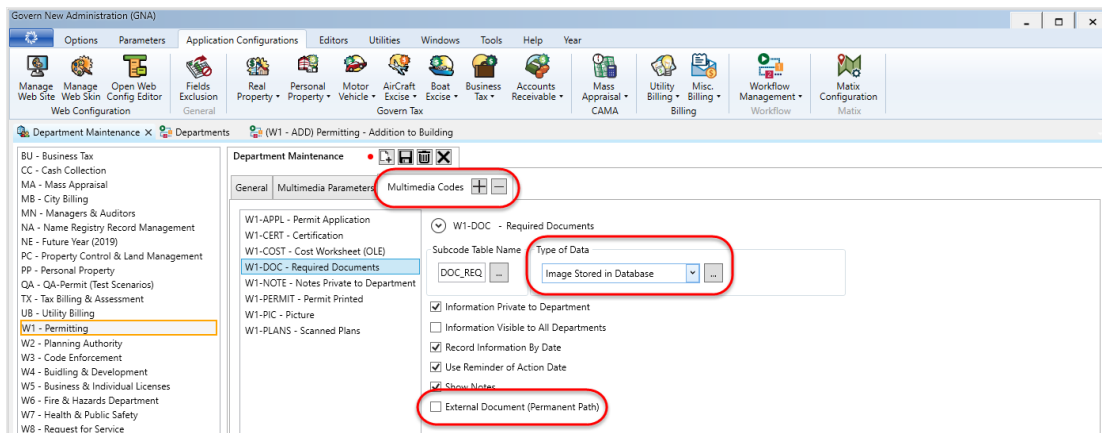
1. On the GNA ribbon, select *Parameters* (tab) > **Department Maintenance**.
2. In the **Department Maintenance** form, select an existing department from the list on the *left hand side* (**LHS**).
3. On the *right hand side* (**RHS**), click to select the *Multimedia Codes* tab.
4. Click [+] on the tab to create a code for a multimedia document.
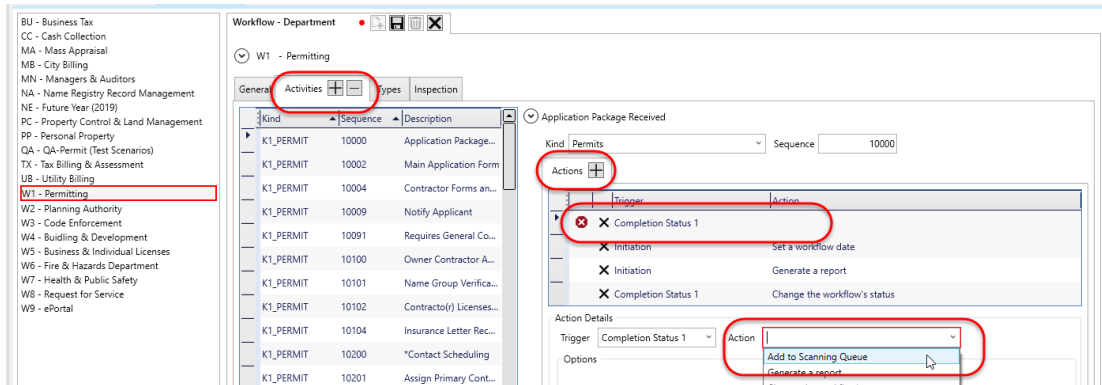
Govern New Administration (GNA)

Multimedia Codes

In the *Department Maintenance* form when defining multimedia codes, note the two data types can be used for scanned requests, "F" and "I".

NOTE: Picture (F) data types are associated with the External Document (Permanent Path) option. Select this option to store only the path to the document. Typically, this is used by clients with an external multimedia document manager.
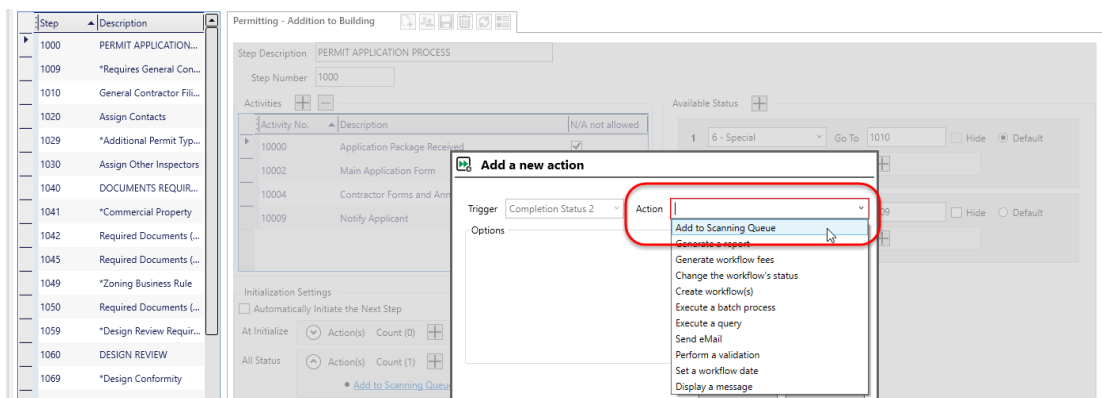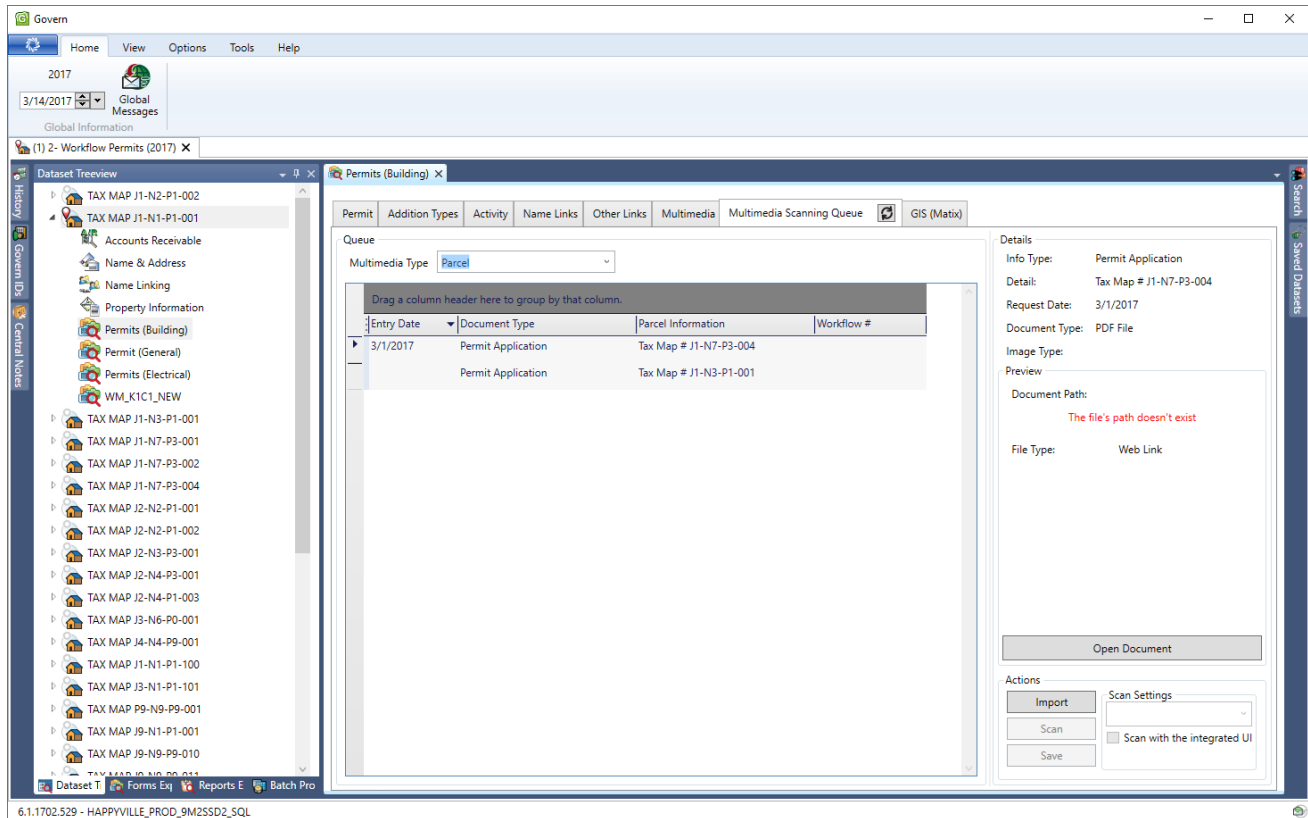

Configuring the Action

The action can be configured at the *Action* level by creating a new action at the workflow activity level.

Actions may also be configured at the *Workflow Step* level.

User Interface

Presentation in Govern

When correctly configured, the Multimedia Scanning Queue form is presented with 3 main groups:

Queue group

Multimedia Type – Select one of two options Name, or Parcel. The initial default value is dependent upon whether the profile is based on a NA_ID, i.e. Name, or a P_ID, i.e. Parcel. This value can be changed.

Queue grid Columns

This grid will display a list of the multimedia documents that are to be scanned in the queue. There are two (2) queries that are used to populate the **Queue** grid. The query used will be determined by the value selected in the *Multimedia Type* parameter located above the grid. Consequently the columns displayed will be dependent on a selection of the Parcel (P_ID) or Name (NA_ID). Refer to Multimedia Type Queries in the *Appendix* section of this document.

How to refresh the Queue grid

Users may refresh the grid containing queued items at any time. This can be done with a click on the refresh button that is displayed on the immediate right of the tab label.

Multimedia Type – **Parcel**

Entry Date – This column will display the entry date of the record

Document Type – The *Document Type* is the multimedia code that was assigned to the record when it is being queued. These codes are created in the Department Maintenance form under the Multimedia Codes tab.

Parcel Info – A certificate number is displayed in this column. If a certificate number is not present, then the application number is displayed.

Workflow # – When appropriate, this column will display the Workflow number associated with the record.

Multimedia Type - **Name**

Entry Date – This column will display the entry date specified for the queued record

Document Type – The *Document Type* is the multimedia code that was assigned to the record when it is being queued. These codes are created in the Department Maintenance form under the Multimedia Codes tab.

Name – This parameter displays the content of free_line_1 from the NA_NAMES table name (NA_ID) associated with the record.

Workflow # – When appropriate, this column will display the Workflow number associated with the record.

Details group

Info Type – This is the document type assigned to the requested file.

Details – Displays parcel or name information

Request Date – If available, this is the set date requested for the document

Document Type – The requested document type is indicated in this field. This is description of the document.

Image Type – This is the classification of the image.

Preview

Document Type – Description of the document.

File Type – This is the type of file, e.g. .jpg, .png, .bmp, .doc, .pdf, and so on.

Actions group

Import – Click to display the file selection window; navigate to and select the file that is to be imported.
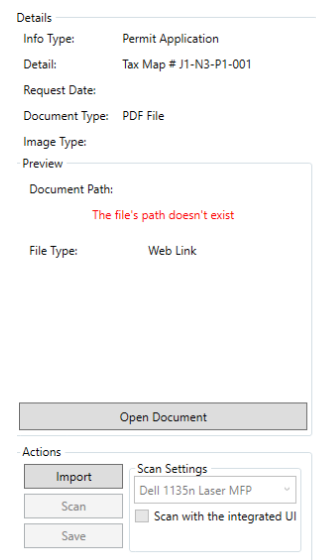
Scan – To scan directly from Govern click this button. When the scan is complete the image will be displayed in the Preview group. No interim UI is displayed.

Save – Click on **Save** to save the file with the record. When the save is complete, the record will be removed from the scan queue.

Scan Settings subgroup

There is a combo-box that displays the WIA compliant scanner that is configured on the system.

Scan with the integrated UI – When this option is selected, the interface will default to the scanner manufacturers interface. When selected, all options in this form will be disabled.

Adding to the Queue

Items are added to the queue either directly through the Multimedia form, or as a result of actions that are associated with an activity. When the item has been added to the queue as a request, they can then be selected one at a time from the list. The required multimedia file is then acquired to be added to the request through a file import, or an import as a result of a scanner acquisition. When the imported document has been saved, i.e. associated with the queue request, the file is removed from the queue.

NOTE: When the *Multimedia Scanning Queue* custom entity is present in the same form as one containing Steps with Multimedia Queue actions, e.g. an *Activity* form, then a **TableChanged** event is signaled to automatically update the list of multimedia documents that are in the queue to be scanned.

APPENDIX

Database Tables

The following Govern table(s) have been added or modified to implement this feature.

- USR_TRIGGER
- USR_TRIGGER_ACTION
- WM_PARM_ACTIVITY_LK_ACTION (link between trigger and activity if the action is configured at the activity level)
- WM_PARM_STEP_LK_ACTION (link between trigger and step if the action is configured at the step level).

Multimedia Type Queries

Parcels

The following is the query used to populate the Multimedia Image Queue for parcels.

```
DECLARE @dept AS varchar(2)
SET @dept='W1'

-- Get Multimedia Image Queue For Parcels
SELECT
    i.info_id, i.p_id, i.dept, i.code,
    (
        SELECT long_desc_en
        FROM vt_user
        WHERE
            table_name='DEPINF' AND
            dept=i.dept AND
            code=i.code
    ) description_code,
    (
        SELECT long_desc_en
        FROM vt_user
        WHERE
            table_name=f.table_name AND
            dept=i.dept AND
            code=i.sub_code
    ) description_subcode,
    (
        SELECT tax_map
        FROM pc_parcel
        WHERE p_id=i.p_id
    ) description_parcel,
    (
        SELECT CASE ISNULL(certificate,'')
                WHEN '' THEN ISNULL(number, application)
                ELSE certificate
                END
        FROM wm_master
        WHERE wm_id = i.ref_id
    ) as description_workflow
FROM pc_dept_info i
INNER JOIN pc_free_form f on i.dept=f.dept AND i.code=f.code
LEFT JOIN pc_dept_info_obj o on o.dept = i.dept AND o.info_id = i.info_id
LEFT JOIN pc_doc_locator l on l.dept = i.dept AND l.document_locator =
i.document_locator
WHERE
    i.dept=@dept AND
```

```
(
  (
    f.data_type = 'I' AND
    o.binary_object IS NULL
  ) OR
  (
    f.data_type = 'F' AND
    l.doc_type = 'F' AND
    l.file_name IS NULL AND
    (l.archive_level in (1,2,3) OR l.use_new_path = -1)
  )
 )
ORDER BY
    i.dept
```

Names

The following is the query used to populate the Multimedia Image Queue for names.

```
DECLARE @dept AS varchar(2)
SET @dept='W1'

-- Get Multimedia Image Queue For Names
SELECT
    i.info_id, i.na_id, i.dept, i.code,
    (
        SELECT long_desc_en
        FROM vt_user
        WHERE
            table_name='DEPINF' AND
            dept=i.dept AND
            code=i.code
    ) description_code,
    (
        SELECT long_desc_en
        FROM vt_user
        WHERE
            table_name=f.table_name AND
            dept=i.dept AND
            code=i.sub_code
    ) description_subcode,
    (
        SELECT free_line_1
  FROM na_names
  WHERE na_id=i.na_id
 ) description_name,
    (
        SELECT CASE ISNULL(certificate,'')
                WHEN '' THEN ISNULL(number, application)
                ELSE certificate
                END
        FROM wm_master
        WHERE wm_id = i.ref_id
    ) as description_workflow
FROM na_dept_info i
INNER JOIN pc_free_form f on i.dept=f.dept AND i.code=f.code
LEFT JOIN na_dept_info_obj o on o.dept = i.dept AND o.info_id = i.info_id
LEFT JOIN pc_doc_locator l on l.dept = i.dept AND l.document_locator =
i.document_locator
WHERE
 i.dept=@dept AND
 (
  (
    f.data_type = 'I' AND
```

```
  o.binary_object IS NULL
 ) OR
 (
  f.data_type = 'F' AND
  l.doc_type = 'F' AND
  l.file_name IS NULL AND
  (l.archive_level in (1,2,3) OR l.use_new_path = -1)
 )
)
ORDER BY
    i.dept
```

Code	Type (Filetype)
"A"	"AutoCad File"
"C"	"Caris Imaging"
"D"	"DB Document"
"F"	"Document Locator (Image)"
"I"	"Image Stored in Database"
"O"	"OLE (Active X) Object"
"P"	"PDF File"
"T"	"Notes & Comments"
"X"	"Other External File"