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Revision History

Date	Description
September, 2004	Release 7.1l release. Revisions made to audit procedures.
March, 2005	Release 8.0a Added new method for configuring key validation and translation. Added eda.config and wf.cong instructions in appendix E:
October, 2005	Release 8.1 Revised image queue topic, added topics for configuring image queue security. Revised tag maintenance topics.
July, 2008	Release 9.1. Minor changes to accommodate new release.
March, 2009	Release 9.2 Added User Groups providing inheritance of Group characteristics for group members. 1Circulate adhoc workflow added.
August, 2012	Release 10.2 Web Services added
March, 2015	Release 11.1 Role and Route based Workflow added
July 2017	Release 11.2 Revised API's GURL,GCPDF,GCBK to be able to use a UNC path for images to be served from. (DMZ Server.)
Sep 2020	Release 12.1 Added ICM and supporting API MOCR, and supporting programs

Before you begin

This manual provides a technical explanation of the 1MAGE Document Management System for the system administrator.
The 1MAGE System Administration Manual is composed of the following sections:
- Code administration
- Software administration
- Hardware administration
- 1MAGE appendix of directories and files

Some degree of expertise with UNIX, Windows and UniVerse system administration is essential. This knowledge can be gained through books, vendor courses, or courses offered by 1mage Software, Inc.

> This manual uses screen captures of 1MAGE running in a terminal emulation session as well as a graphical user interface (GUI). In terminal services the 1MAGE menu is a moving bar menu that uses alpha-numeric mnemonics for menu option selection. See the 1Suite, 1Access and V1A manuals for information regarding indexing and inquiry.

Overview

This overview presents a synopsis of 1MAGE activities that relate to capture, indexing, and retrieval of document images and ASCII text files.

Image Capture

By Scanner

Images are captured at a scanning station that communicates with the 1MAGE server. The 1Scan application captures a document image, compresses it in TIFF file format and creates a corresponding "companion data file". The 1MAGE ITS (Image Transfer Service) transfers the scanned images and companion data files to the 1MAGE server.

Companion data includes such elements as batch name, sequence number, document type, indexing keys (up to three), date, time, and operator's login id. If the bar code option has been purchased, bar code data is also included in the companion data.

By Fax Modem

The 1FAX Router processes and saves incoming faxes in TIFF file format and creates a corresponding companion data file for each page. Those files are presented for indexing as though they had been scanned using 1Scan

By Multi-Function Device

If 1ScanServer has been purchased, image files captured by a multi-function peripheral device (MFP) are directed to the 1MAGE server. Background processes on the 1MAGE

server manipulate those image files and present them for indexing as though they had been scanned using 1Scan.

C.O.L.D./ERM (character based spooled output)

Text files, such as printed reports stored in ASCII format are transferred to the 1MAGE server. These documents are indexed by a background process using document type and index key data extracted based on established templates.

Other

Through the 1Access GUI interface, the V1A browser interface, or the ZoeFetch client 1MAGE supports the indexing and archiving of files browsed from the client PC local disk. As part of the indexing process the file is sent, in its native format, to the 1MAGE server. When retrieved from the 1MAGE server these files are opened in the application associated with their file extension.

Indexing

Automated or manual indexing is dictated by the configuration of the hardware installed.

Automated indexing via 1Scan with bar code with or without patch code recognition

An image may be made available for automated indexing when a PC running 1Scan with the bar coding/patch coding option successfully detects a bar code/patch code.

When implementing the automated indexing process BARINDEX must be customized to implement barcode indexing. A prototype of this program is included in the 1MAGE.TBP on all installations.

BARINDEX runs as a phantom process and monitors the barcode queuing directory.

When you use 1SCAN

- The document image is scanned with 1Scan using either the Continuous typing or By Document option to ensure that the companion data file will contain a document type that can be used in conjunction with barcode information to index the image.
- Alternatively, the barcode placed on the document can contain information that establishes the document type.
- After scanning, the image and its companion data file are transferred to a barcode queuing directory where BARINDEX reads each companion file and uses the information it finds therein to index the image. BARINDEX needs to be customized depending on how barcode indexing will be implemented.
- If the information in the companion file is insufficient to index the image, BARINDEX moves the files to the manual indexing queue.

Automated indexing via COLD/ERM

Automated COLD/ERM indexing takes place using an indexing process (PROCESS.PACKET) that monitors queuing directories scanning for completed packets of report data. PROCESS.PACKET interprets command codes embedded in the report data

and matches the data to a COLD Template that describes the document type and points to the locations of imbedded index key data.

Manual indexing

Images from a particular scanner queue and/or batch code are selected and displayed in a window alongside an indexing data entry window. A code identifying the document type is selected and a panel is displayed prompting the user to enter the values for the unique index keys that have been defined for that document. The index keys are validated based on user-defined criteria and the indexed image is filed and stored in the 1MAGE archive.

Stored Documents

For each unique document, a variety of image indexing files are updated:

- 1MAGE.MASTER contains the most frequently used information about a document. The document type, index key information and storage locations are kept in this file.

- 1MAGE.DETAIL contains the historical information about a document. The date and time scanned, scan batch number, original file name, and any history of index changes is kept in this file.

- 1MAGE.XREF is the primary indexing file used to locate images. It is an inverted file based on the index key codes and associated data fields from the 1MAGE.MASTER file.

- 1MAGE.INVERT is a file inversion of the 1MAGE.MASTER file. In this case, the inversion is based on the actual image page file numbers. This file is used for recovery purposes and to identify mis-located files.

- 1MAGE.NOTES contains data duplicated from fields in the other indexing files. This data is maintained for redundancy and provides the ability for the indexing structure to recover completely from any file anomalies that may occur in one any of these 5 files.

Retrieval

Image retrieval is based on the document indexes in the 1MAGE.XREF file that reference the 1MAGE.MASTER record(s). Document retrieval is initiated using 1Access, V1A or by using a customized interface in a line-of-business application program.

Components

In order to provide the most cost-effective, high performance document imaging system, 1MAGE integrates "third party" and 1MAGE components.

1MAGE recommends that annual maintenance be purchased for all components in order to receive product upgrades and timely technical support.

1FAX

1FAX manages fax modems and fax transmissions and receptions. It runs server based processes for each fax modem on the system as well as a router process for handling incoming faxes. These processes can be started manually from the 1MAGE Administration Menu or automatically at boot time by adding initialization

scripts. Each process maintains a log file for analysis and troubleshooting. System files are located in /1MAGE/1FAX. VSI-Fax is the 3rd party faxing software used by 1FAX.

UniVerse^{TM}

UniVerse is a Relational Database Management Systems (RDBMS) that track and index documents. Each features multi-valued and variable length fields. Included in each is a BASIC programming language in which some of 1MAGE's applications are written.

UniVerse also provides its own print spooler, which can work either in conjunction with the UNIX spooler or independent of it.

Conventions, Terminology and Menus

This chapter of the System Administration Manual includes general procedures for creating, modifying, and deleting codes for Index Keys, Image Types, Categories, Indexing Queues, Tags, 1MAGE users and Groups, COLD Templates, Workflow Master references and 1FAX related files.

Code entry assumes that a document inventory is complete and that Index Key, Image Type, and Image Category Codes and descriptions have been determined and documented.

Access

1MAGE administrative menus are divided by function. Depending on the defined profile for the logged in user, different menu sets may appear.

As of release 10.1, a combination of both the telnet menu and the GUI interface is utilized to administer 1MAGE.

The following menus/functions are administered in the GUI interface:

| 🌱 Home | 🌱 Classify | 🌱 Groups | 🔍 Users | 🔍 Code Files | 🔍 Workflow |

Classify- Create, modify and delete index keys, document types and categories.

Groups- Create, modify and delete Groups. Characteristics including document types, tags and queues are administered in this tab. Each User must be assigned to a Group; each member of that group will inherit that Group's Characteristics.

Users- Create, modify and delete Users. Characteristics including document types, tags and queues are administered in this tab.

Code Files- Maintenance of Organizations, SaaS IDs, Scanned Images Queues and Tag Creation can be accomplished under this tab.

Workflow- Administration of Workflow Roles, Routes and Reporting.

Throughout the graphical user interface, green question marks provide help for the screen the user is on. In addition, any hyperlinked word will produce a help box with the definition and further detail on the term.

The following menus/functions are administered in the telnet session:

phantoms – Appears on the top level menu for administrators. Phantoms are programs running in the background on the 1MAGE server. The items on this menu let the administrator define phantom properties as well as selectively start and stop phantom processes

faxes – Appears on the top level menu for administrators only if the 1FAX component of 1MAGE is installed and authorized. The items on this menu provide user interfaces to set up and maintain the Fax Phone database and to configure Fax Coversheets. Sub menus from this menu give access to start, stop and get the status of the 1FAX processes and to display reports pertaining to 1FAX activity.

images – Appears on the top level menu for non-administrative users. The items on this menu provide character based Index, Inquire and Index Modification functions.

exit – Appears on administrative as well as non-administrative top level menus. In addition to terminating a terminal emulation session, a selection on this menu will allow the user to find the precise release level of 1MAGE installed.
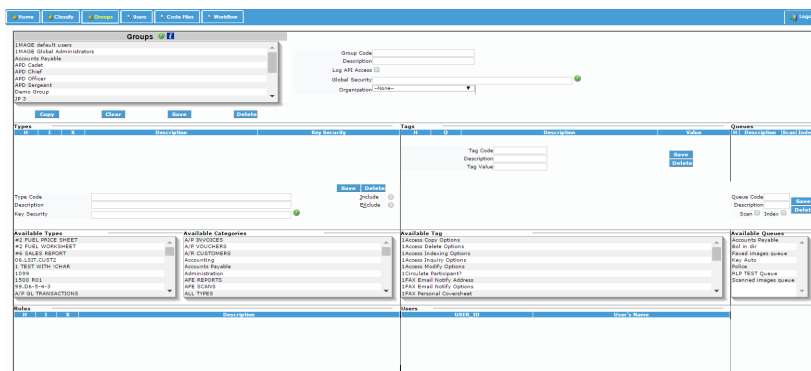
Menus and Submenus in the GUI

Classify

Add, modify and delete Index Keys, Document Types and Categories from this screen.
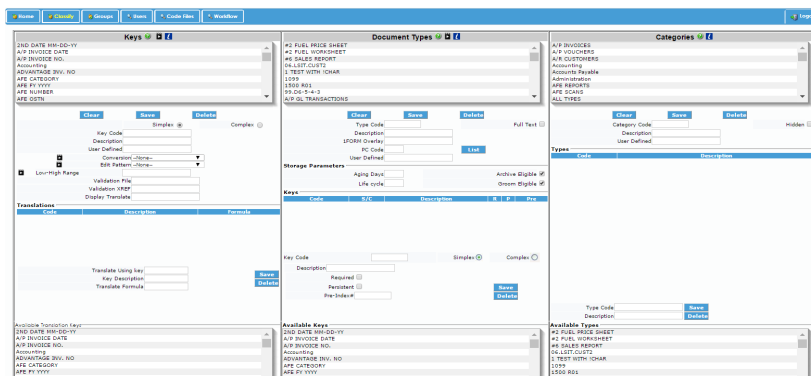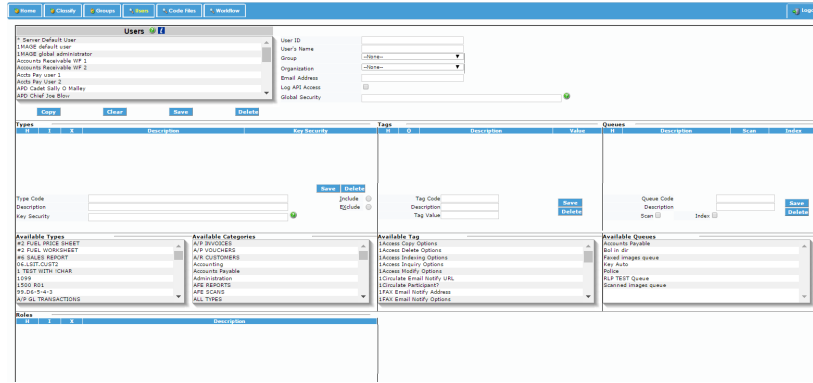

Groups

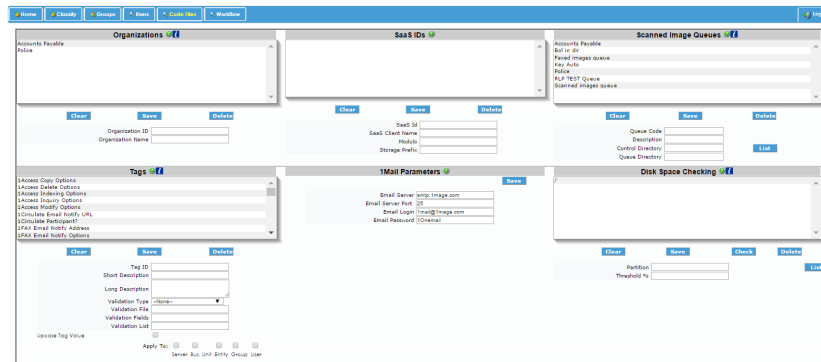Add, modify and delete Group characteristics from this screen.

Users

Add, modify and delete User characteristics from this screen.

Code Files

Add, modify and delete Organizations, SaaS IDs, Scanned Image Queues and Tags from this screen.

Workflow

Add, modify and delete workflow roles, routes and reporting. (Multiple screens within the Workflow tab).
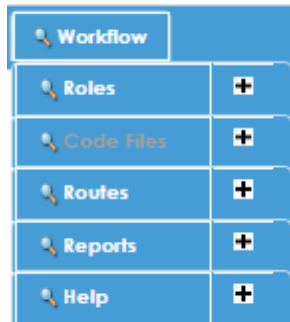
1MAGE Groups and Users

Starting with 1MAGE Release 9.2, 1mage introduces the concept of Users as members of Groups. A Group can be configured in 1MAGE as having a set of characteristics that define the security and functionality of a set of Users. Users added to a Group inherit all of the characteristics of that Group eliminating the need to modify each User's Profile each time there is a change in the structure of the 1MAGE taxonomy. Each User may be a member of only one Group, but the User Profile maintenance screens allow for that User's Profile to be customized by "Including" or "Excluding" characteristics that are part of, or missing from, their Group Profile.

Screen design for Groups and Users Tabs

Groups

List of Current Groups/Users

Group Code
Description
Log API Access
Global Security
Organization --None--

Copy   Clear   Save   Delete

Types Panel   **Tags Panel**   **Queue Panel**

Types				
H	I	X	Description	Key Security

E(X)cluded

(I)ncluded

In(H)erited

Type Code
Description
Key Security

Include
Exclude

Save   Delete

Available Types
#2 FUEL PRICE SHEET
#2 FUEL WORKSHEET
#6 SALES REPORT
06.LSIT.CUST2
1 TEST WITH !CHAR
1099
1500 R01
99.D6-5-4-3
A/P GL TRANSACTIONS

Available Categories
A/P INVOICES
A/P VOUCHERS
A/R CUSTOMERS
Accounting
Accounts Payable
Administration
AFE REPORTS
AFE SCANS
ALL TYPES

Tags				
H	O	Description	Value

In(H)erited

Tag Code
Description
Tag Value

Save
Delete

(O)verride

Available Tag
1Access Copy Options
1Access Delete Options
1Access Indexing Options
1Access Inquiry Options
1Access Modify Options
1Circulate Participant?
1FAX Email Notify Address
1FAX Email Notify Options
1FAX Personal Coversheet

Queues			
H	Description	Scan	Index

In(H)erited

Queue Code
Description
Scan   Index

Save
Delete

Available Queues
Accounts Payable
Bol in dir
Faxed images queue
Key Auto
Police
RLP TEST Queue
Scanned images queue

Roles			
H	I	X	Description

E(X)cluded

(I)ncluded

In(H)erited

Role Code
Description

Include
Exclude

Save
Delete

Workflow Roles Panel

Users

Users Panel
(only on Groups Tab)

Display of Users Within this Group

Classify Tab

Users can add, modify and delete Keys, Types and Categories.

Image key codes

The 1MAGE document management design assumes that a document may be identified by a unique set of descriptive data that may be used to retrieve the document's image after it has been stored. The descriptive data associated with an image is its image type and index key(s).

Image type is equivalent to document type or what a document is called; for example, purchase order, delivery receipt, or invoice. An index key is any piece of information found on (or associated with) a document. An index key, by itself or in combination with other pieces of information, makes a document different than any other document of its type.

For example, an invoice might be different than other invoices because of its unique invoice number; it might also be unique because it is the *only* invoice issued to Acme Corporation on 06/01/11. In the first example, a single piece of data makes the invoice unique; in the second example, a combination of data elements does.

The act of associating image type and index keys with an image is known as "indexing" the image. 1MAGE employs a simplex key, such as invoice number, to store one piece of data at a time and a complex key, such as company name and date, to store two or more pieces of data as part of the same key.

When an image is indexed, 1MAGE builds a record in 1MAGE.XREF with separate values for each defined simplex and complex key. During inquiry, the system searches the 1MAGE.XREF for data that matches the search criteria.

- You may concurrently associate (S)implex and (C)omplex keys with an image type.

- You may associate both a simplex key and a complex key (of which the simplex key is an element) with an image type.

♦ **To add a simplex key**

1. Select the Keys panel from the Classify Menu tab.

The top portion of the panel displays an alphabetical list of all index keys currently on the system.

2. To add a simplex key, do the following:

3. Click the 'Clear' button to clear all below fields. Select the Simplex button.

4. Type a unique key code name in 'Key Code' Field. For example, INVNO for Invoice Number.

5. Describe the key in the 'Description' Field; this is what the end user will see during indexing and retrieval. i.e. 'Invoice Number'

   Only the 'Key Code' and 'Description' field are required to save a key, fields below are optional.

6. For 'User Defined' Field: USE ONLY IF YOU ARE INTEGRATED AT THE DATABASE LEVEL WITH 1MAGE. If there is some information about documents with this code that you want 1MAGE to store for you, enter it here and it will be returned in the third field of the RETURNLIST from the GKEY API call. This is used primarily for image-enabled applications.

7. If the Index Key Code you are creating is for a date or a monetary value, define the 'Conversion' field; if not, leave blank.

   Note: If you define date with a conversion format, the indexing operator will not need to punctuate the data when they enter it. For instance, one conversion allows the operator to type 010111, and 1MAGE will re-display it as 01/01/2011.

For a date conversion

At	Do this
Conversion	Select D2/ or D4/

D2/	Date - Presented as MM/DD/YY or DD/MM/YY
D4/	Date - Presented as MM/DD/YYYY or DD/MM/YYYY

D2/ and D4/ are programming conventions that convert dates to either positive or negative integers for storage but re-display them in the format mm/dd/yy or mm/dd/yyyy.

For monetary conversion

At	Do this

|	
Conversion	Select from the drop down the appropriate option.

MD2,$	Currency - Presented as $1,234.56
MD2,	2 decimal Number - Presented as 1,234.56
MD0	Integer - Numbers rounded to whole values
MD2,[£,,,]	Currency - Presented as £1,234.56

8. If you wish to constrain the number and type of characters that may be entered in an index key code field, define field 'Edit Pattern'; if not, leave blank.

At	Do this

Edit Pattern	Select your chosen pattern designator. For example:
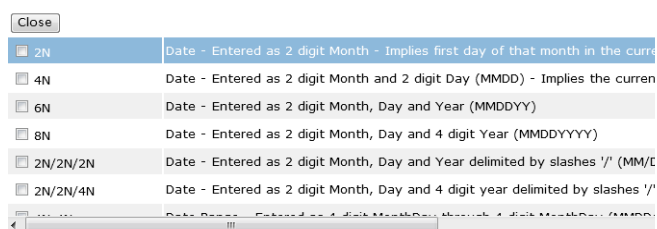
When Edit Pattern is defined, the system performs a simplistic verification of the value you enter against a pattern designator. Common UniVerse pattern designators are listed below.

5N;5N'-'4N	For a ZIP code field. Enter 5 numbers, or enter 5 numbers followed by a hyphen and 4 numbers.
0N	For a whole number of any length.
0A	For any number of alphabetic characters.
0N'.'2N	For a monetary field. Enter any number of numeric characters, ending with a decimal and two numbers. Do not enter commas. For a negative cash amount, type a minus symbol before the dollar amount; for example, type -20.75.
3N'-'4N, 3N'-'3N'-'4N	For a phone number. Data entry during indexing is limited to either seven or ten numeric characters when it includes an area code.
3N'-'2N'-'4N	For a Social Security Number. Data entry during indexing is limited to nine numeric characters.

9. If the Index Key Code you are creating is for a numeric entry and you wish to limit its range, define 'Low-High Range' field; if not, leave blank.

| At	Do this
Low-High Range	Type a numeric range separated by a colon. When low/high range is defined, the system performs a simplistic verification of the value

entered against the low/high range of values.

For example, if your vendor code numbers are always greater than 0 and smaller than 99,999, type 0:99999 in the low/high range definition field and the system validates that the number entered falls within that range.

1MAGE has the ability to derive, translate, and validate key data. Deriving key data means that key data consisting of more than one word may be derived by using any of the words in that key. Translating key data means that key data may be associated with another value such as a number.
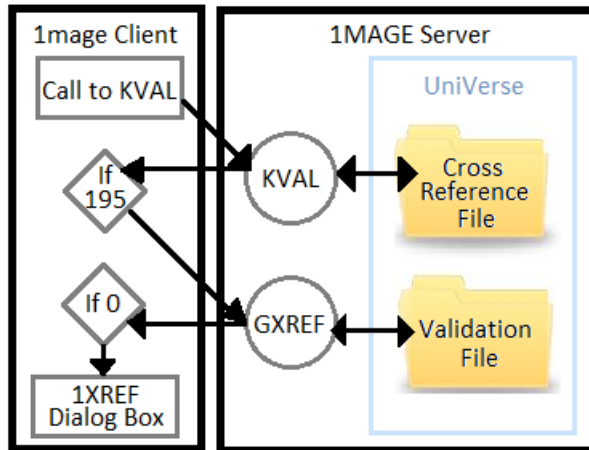
When a user enters that number in the key, it is translated into the key data. Validating key data means that the user is prevented from entering key data that is not predefined.

Three methods may be used to configure validation and translation:

1. Use predefined Validation and Translation files in the UniVerse database on the 1MAGE Server. This method requires that customized UniVerse files be written and these files must exist on the 1MAGE Server.

2.   Use sub routines that access files or data from a remote application or server. This method requires that customized subroutines be written on the 1MAGE server to access custom programs that in turn will access a remote database. A separate subroutine must be written for each configured key code.
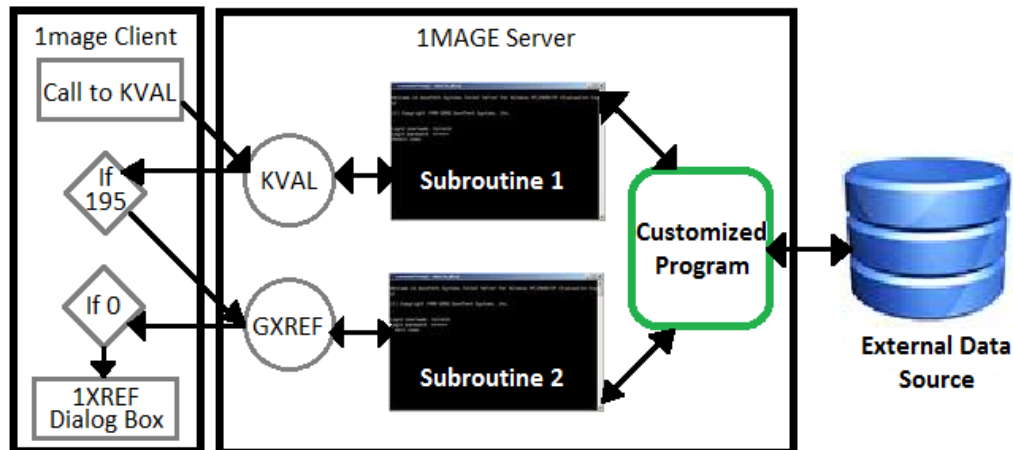
3. Use a service to connect to an external data source. This service uses the TCP protocol and can natively use whatever API is exposed by the remote database.
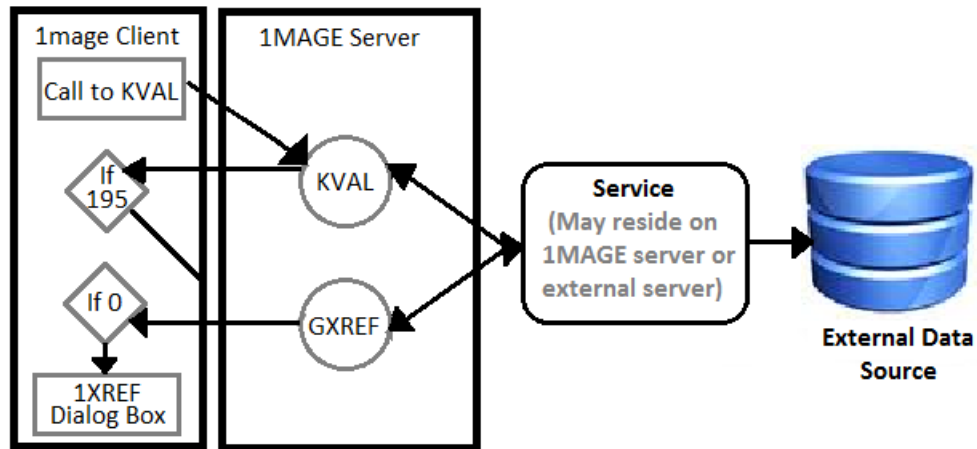
Each method requires that the Validation File, Validation Xref and Display Translate be configured differently depending on the method being used. Each of these methods requires some customized configuration outside of 1mage Administration. The following sections provide the specific configuration requirements for each method. Choose the method that best fits imaging solution and follow the instructions provided in the corresponding section.

For more information on customizing your imaging system to use key validation and translation contact your 1mage Professional Services Representative. For technical assistance in creating any of the customized components described above contact 1mage Technical Support.

Method 1: Using predefined Validation and Translation files on the 1MAGE Server

At	Do this
Validation File	Type the name of the validation file. (A UniVerse file must be opened with a UniVerse OPEN statement.)
	Entering a Validation File means that the system validates the information, you enter during the indexing process against the named file.
	For example, if you define VENDOR as the Validation File for **VNUMB** (Vendor Number), when you index or inquire for an image, the application checks that a file named VENDOR exists and that there is a record in VENDOR file which corresponds to the Vendor Code you entered.

**You may define Validation XREF** *only* **if you defined Validation File and are using inverted file cross-referencing.**

| Validation Xref	Type the name of a validation cross-reference File or a validation cross-reference subroutine and press Enter.
	Entering a VALIDATION XREF for a code means that when you index, you may enter data which is found in *either* the Validation File or the Validation XREF file.
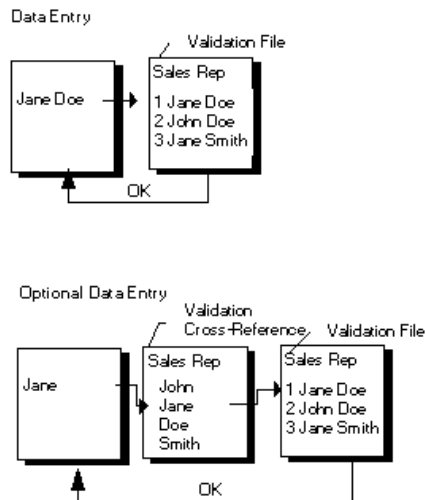
Define DISPLAY TRANS *only* **if you defined Validation File.**

Display Trans	Type *TCorrelative;X;;field_value* where TCorrelative is a T-Correlative of the Validation File, and field value is the field location of the data to be displayed separated by semicolons.

Do not enter a space between T and the file name.

Display Trans tells the system what data it should extract from the Validation File in order to display it during indexing.
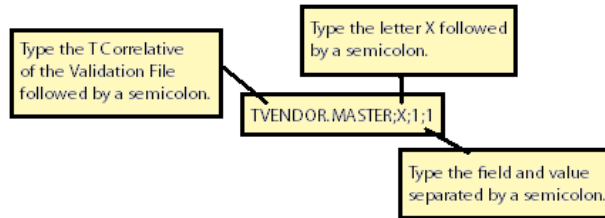
Optional Display Trans syntax Instead of pointing to the Validation File, you may point to another file; for example, TSALES REP.XREF.

Method 2: Using a Subroutine

At	Do this
Validation File	Specify the validation subroutine, in the format *<subroutine name> where "*" is a special prefix that tells 1MAGE to invoke the subroutine when indexing. The subroutine has three arguments: KEY DATA, RESPONSE, and RETURN CODE.
Validation Xref	Specify the validation cross referencing subroutine, in the format *<subroutine name> where "*" is a special prefix that tells 1MAGE to invoke the subroutine when indexing. The subroutine has three arguments: KEY DATA, RESPONSE, and RETURN CODE.
Display Trans	Specify a translation subroutine, in the format *<subroutine name>, where "*" is a special prefix that tells indexing to call a subroutine. The subroutine has three arguments: KEY DATA, RESPONSE, and RETURN CODE.

Method 3: Using a service to connect to an external database

At	Do this
Validation File	Specify a valid host name and port in the format *<hostname>:<port> where hostname is the name of the server where the external data source resides and port is the tcp port where the service will listen.

You may define Validation XREF *only* if you defined Validation File and are using

inverted file cross-referencing.

Validation Xref	No configuration required.
Display Trans	Specify a valid host name and port in the format
	*<hostname>:<port>
	where hostname is the name of the server where the external data source resides and port is the tcp port where the service will listen.

Define a Translate Key (Optional)

If you wish to have the system do automatic data entry by deriving database information, define the next pair of code fields; if you define Translate *Key*, you must also define Translate *formula*.

A "Translate Key" calls a service, a subroutine or points to a field and value named in a T-Correlative file so that another Index Key field or fields also associated with the Image Type may be automatically populated. This allows a user to enter key data in one field and have data in two or more keys automatically populated.

Method 1: Using pre-defined Validation and Translation files in on the 1MAGE Server

At	Do this
Translate Key	The "Translate Key" points to a field and value named in a T-Correlative file so that another Index Key field or fields also associated with the Image Type may be automatically populated.
	For example, for the VNAME key, VNUMB is identified as the Translate key and its Translate Formula points to the Vendor file; as soon as the Vendor Number VNUMB is entered the VN key Vendor Name will be populated. 1MAGE looks in the VENDOR file and extracts the Vendor Name from field 1of the VENDOR file.
	To create a Translate Key double click on the key you want to use to translate from the Translate Using Key and Key Description fields

will be populated.

Translate Formula	Enter the Translate Formula. TCorrelative is a T-Correlative of the Translate Key location, and field value is the field and value location of the data to be displayed separated by a semicolon.

Type TCorrelative;X; field_value where TCorrelative is a T-Correlative of the Translate Key location, and field_value is the field and value location of the data to be displayed separated by a semicolon.

The formula tells the system where to find the information it is to automatically enter for the Index Key Code.
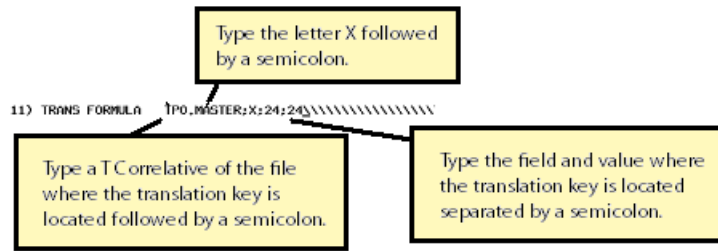
Type the letter X followed by a semicolon.

11) TRANS FORMULA   TPO.MASTER;X:24:24\\\\\\\\\\\\\\\\\\\\

Type a T Correlative of the file where the translation key is located followed by a semicolon.

Type the field and value where the translation key is located separated by a semicolon.

Note: 1MAGE will not permit you to define a Translate Formula unless you have also defined a Translate Key.

Method 2: Using a Subroutine

At	Do this
Translate Key	Do the following: Enter the Subroutine name in the Translate Formula with a * in front of the subroutine name
Translate Formula	Type: *<subroutine> where "subroutine" is the name of the subroutine that will call a custom program The subroutine has three arguments: KEY DATA, RESPONSE, and RETURN CODE.
	Note: 1MAGE will not permit you to define a Translate Formula unless you have also defined a Translate Key.

Method 3: Using a Service

At	Do this
Translate Key	Do the following: Enter *<hostname>:<port> in the Translate Formula field.
Translate Formula	Type: *<hostname>:<port> where hostname is the name of the server where the external data source resides and port is the tcp port where the service will listen.
	Note: 1MAGE will not permit you to define a Translate Formula unless you have also defined a Translate Key.

♦ **To modify a simplex key:**

1. Select the index key from the list in the Keys panel under the Classify Menu. Associated information will populate the fields below.

2. Modify the appropriate field(s). Click the Save button.

♦ To delete a simplex key

> Use this procedure during code creation only! Never delete a simplex key which has been used to index an image (even if you are no longer using it) or which has been used as a complex key component.
>
> Codes used for indexing provide necessary search criteria when the system retrieves the image during image inquiry. If a code is deleted, image retrieval will be compromised.

1. Select the index key from the list in the Keys panel under the Classify Menu. Associated information will populate the fields below.

2. Examine the key's data to ensure that this key is be deleted.
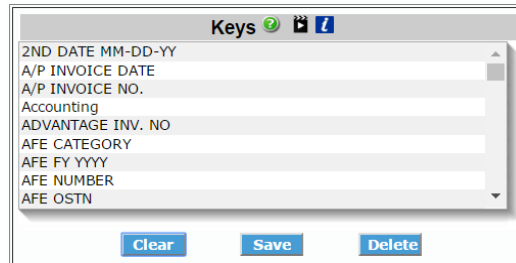
3. Click the 'Delete' button.

♦ To create complex keys

Complex key codes are composed of strings of *simplex* codes. Before creating a complex key code, check that you have created and defined *all* the simplex codes that you will use to form a complex key.
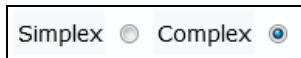
1. Select the Keys panel from the Classify Menu tab.

The top portion of the panel displays an alphabetical list of all index keys currently on the system.

2. Click the 'Clear' button to clear all below fields. Select the Complex button.

3. Type a unique key code name in 'Key Code' Field. For example, CUSTNM for Customer Name.

4. Describe the key in the 'Description' Field; this is what the end user will see during indexing and retrieval. i.e. 'Customer Name'.

5. For 'User Defined' Field: USE ONLY IF YOU ARE INTEGRATED AT THE DATABASE LEVEL WITH 1MAGE. If there is some information about documents with this code that you want 1MAGE to store for you, enter it here and it will be returned in the third field of the RETURNLIST from the GKEY API call. This is used primarily for image-enabled applications.

6. Select the simplex keys that define the complex key from the list of available keys by double clicking. Keys will populate above.
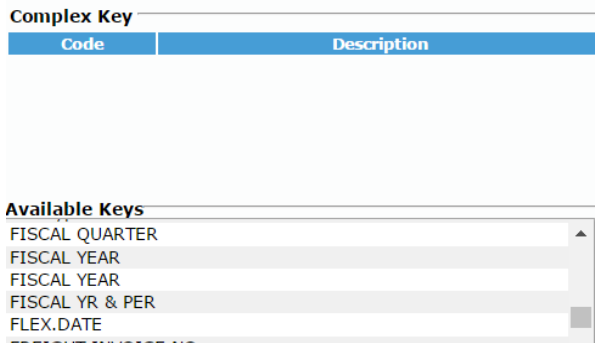

Image type codes

1MAGE Lifecycle Management process for document images recognizes that not all document images need to be retained indefinitely. In other words, when an image's reference activity declines to zero or its legal

retention requirements expire, the image *may*, or perhaps even *should,* be discarded.

To facilitate the process of deleting document images, two attributes must be identified for every image type: grooming eligibility and temporal nature.

Two fields, GROOM ELIGIBLE and Lifecycle Days, which are configured on the 'Document Types Panel' under the 'Classify Menu Tab'. The GROOM ELIGIBLE setting is stored in both 1MAGE.MASTER and 1MAGE.TYPEC; Lifecycle Days is stored in 1MAGE.TYPEC. Archive.Eligible is also configured the same 'Document Types Panel' and stores its settings in 1MAGE.MASTER and 1MAGE.TYPEC.

The GROOM ELIGIBLE flag identifies an image type as eligible or ineligible for *automated* removal from hard disk. Image types whose GROOM ELIGIBLE flag is checked will be *automatically* deleted from hard disk by IMAGE.GROOM on their Groom date. Image types whose GROOM ELIGIBLE flag is unchecked will be *not* deleted from hard disk until a manual removal process is initiated.

Additionally, every image type must be identified as either temporary or permanent. A *temporary* document is one that has a *finite* or *quantifiable* life as an image. 1MAGE calls this a *lifecycle*—only *temporary* image types have lifecycles. When an image, whose lifecycle has come to an end, is deleted, any references to it in the 1MAGE.MASTER, DETAIL, XREF and INVERT files are also deleted.

In contrast, a *permanent* image type is one that will be stored somewhere in the hierarchical storage system—hard disk, optical, or tape—*indefinitely*. 1MAGE defaults the disposition of all image types to permanent. Permanent image types do not have lifecycles because the length of their "life" cannot be assigned.

Both permanent and temporary images are selectively deleted each day from hard disk by a grooming process called IMAGE.GROOM. Images are targeted for grooming if their GROOM ELIGIBLE flag is set to Yes, and their Groom date is equal to, or less than, the current day's date. Moreover, if a temporary image has a lifecycle date that has expired, not only the image, but also all references to the image are deleted.

Both an image type's grooming eligibility, as well as its temporal nature must be defined in Image Type Codes Maintenance because these two attributes work in unison to determine how an image will be managed by the system.

Contact 1MAGE Technical Support for more specialized uses of the process.

♦ **To add Document Types**

1.   Select the Document Types panel from the Classify Menu Tab.

The top portion of the panel displays an alphabetical list of all document types currently on the system.

Only the 'Type Code', 'Description' and one associated key are required to save a type.

2. Click the 'Clear' button to clear all below fields.

3. Type a unique type code name in 'Type Code' Field. For example, INV for Invoice.

4. Check the 'Full Text' box if this document type is to be utilized with our 1SEARCH product for Optical Character Recognition.

5. Describe the document type in the 'Description' Field; this is what the end user will see during indexing and retrieval. i.e. 'Invoice'.

6. Define '1FORM Overlay' field only if the Type Code being created is used for COLD data and if a template has previously been created at the programming level; if neither is true leave blank.

   Use the prefix only; do not use any extensions that might be used to identify multiple iterations of a 1FORM overlay. For example, type 1FORM, do not type 1FORM.PRINT.

7. If you utilize 1SCAN's pre-indexing feature, please associate a unique numeric value (1-999) to this document type that you will utilize at scan time. To view a current list of values in use, select the 'List' button. Do not define PC Codes for COLD documents.

8. For 'User Defined' Field: USE ONLY IF YOU ARE INTEGRATED AT THE DATABASE LEVEL WITH 1MAGE. If there is some information about documents with this code that you want 1MAGE to store for you, enter it here and it will be returned in the third field of the RETURNLIST from the GKEY API call. This is used primarily for image-enabled applications.

9. For 'Aging Days' Field: Type the number of days the image is to be stored on magnetic hard disk (a numeric between 1 and 999).

   If Hierarchical Storage Management (HSM) is enabled, the image is removed from magnetic hard disk after the designated number of aging days pass. If (HSM) is not enabled, the image remains on magnetic hard disk because it is not eligible to be groomed.

10. Identify if the image type is *eligible* to be moved to another type of media. If so, check the Archive Eligible box; if not, leave unchecked.

    Image types whose Archive.Eligible flag is checked will be *automatically* archived on whatever type of external media (optical or tape) operational on the imaging system. Image types whose Archive.Eligible flag is unchecked will be *not* archived.

11. Identify the image type as permanent or temporary; If image type is temporary enter a numeric in the 'Lifecycle Days' Field. These are the number of days that you want an image (and any reference to it) to remain on hard disk. Left blank signifies it is a permanent image type.

12. Determine if you want the image groomed from hard disk in an automated or in a manual fashion.

    Image types whose Groom.Eligible flag is checked will be *automatically* deleted from hard disk by IMAGE.GROOM on their groom date. Image types whose Groom.Eligible flag is unchecked will be *not* deleted from hard disk until a manual removal process is initiated.

If both the Groom.Eligible and the Archive.Eligible flags are set to Yes, but there is no operational archiving media, images will not be groomed.

13. Define at least three index key codes to ensure sufficient search criteria for image retrieval during image inquiry.

   A list of available index keys is located at the bottom of the Document Type panel.

14. To add index keys, double click/right click the key from the list. Once selected, the key's characteristics will populate above. The user then must select whether this index key is to be Required, Persist and/or associated for Pre-Indexing.

Required	Is the key required by this document type for indexing? The box checked means that data entry during *indexing* is mandatory and

	unchecked means that data entry is optional.
Persist	Should this key's data persist from the previous document when indexing?
	The box checked means that the most recent value of the indexing data is carried forward and an unchecked box means that it is not. This flag can be changed from one batch of entries to the next.
	For instance, if persistence is checked for index key code CU (customer name), and *Smith* is entered for customer name on the first document, *Smith* populates the CU field for each document in the batch until a new customer name such as *Jones* is entered.
Pre-Index Field	Define the Pre-Index Field only if you wish to associate a pre-indexing number (1,2, or 3) with the index key code you are defining. Three numbers are the maximum you may assign even if more than three index key codes are associated with this image type. You may choose to assign fewer than three numbers.
	Note: The new PC key(s), type code(s), description(s), and keys that are selected for pre-indexing are updated in the udf.ini and docs.ini files that 1SCAN accesses to create the Document Type List.

Click the Save button to save the index key and characteristics to that document type. Repeat steps to add additional keys. Click the Save button at the top to save the document type including characteristics and index keys.

To re-order the keys, select the key from the list of assigned keys; green arrow buttons will appear below. Move key up or down with arrow keys accordingly. Click save when keys are in correct order.

Keys

Code	S/C	Description	R	P	Pre
VENDOR	S	VENDOR NUMBER	Y	Y	1
AP.INV.NO	S	A/P INVOICE NO.	Y	Y	2
AP.INV.DATE	S	A/P INVOICE DATE	Y	Y	3

Key Code   [ ]   Simplex ⦿   Complex ○

Description [ ]

Required ☐

Persistent ☐   **Save**

Pre-Index# [ ]   **Delete**

♦ **To modify a Document Type**

1. Select the document type from the list of available types on the Document Types panel under the Classify Menu tab. Characteristics will populate in the fields below.

Document Types ⊘ ⏭ 𝒊

99.D6-5-4-3
A/P GL TRANSACTIONS
A/P GL TRANSACTIONS
A/P GL TRANSACTIONS
A/P INVOICES
A/P VOUCHER
A/R CUSTOMERS
Accident Reports
ACCOUNT STATUS SUMM

Clear   **Save**   **Delete**

Type Code [AP.INVOICES]   Full Text ☐

Description [A/P INVOICES]

1FORM Overlay [ ]

PC Code [4]   **List**

User Defined [ ]

Storage Parameters

Aging Days [999]   Archive Eligible ☐

Life cycle [N]   Groom Eligible ☑

Keys

Code	S/C	Description	R	P	Pre
VENDOR	S	VENDOR NUMBER	Y	Y	1
AP.INV.NO	S	A/P INVOICE NO.	Y	Y	2
AP.INV.DATE	S	A/P INVOICE DATE	Y	Y	3

2. Edit the field you wish to adjust and click the save button. If you add, modify or delete an index key, be sure to click 'Save' both pertaining to the index key addition/deletion as well as the top 'Save' button.

♦ **To delete a Document Type**

1. From within the Types panel in the Classify tab, double click the document type to be deleted. Characteristics will populate below. Click 'Delete'.

> Use this procedure for new codes only! *Never* delete a type code that has been used to *index* an image even if you are no longer using it. Codes used for indexing provide necessary search criteria when the system retrieves the image during image inquiry. If a code is deleted, the image retrieval will be compromised.
>
> Change the key from "Required" to "*Not* Required" when you no longer wish to index with a particular key.

Image category codes

1MAGE categories are logical groupings of Document Types. While Category Codes are not attached to individually indexed documents or to individual 1MAGE users, they are used as an organizing structure and as the first step when searching for documents.

♦ **To add Image Category Codes**

1. Select the Categories panel from the Classify Menu Tab.

The top portion of the panel displays an alphabetical list of all categories currently on the system.

*Only the 'Category Code', 'Description' and one associated type are required to save a category.

2. Click the 'Clear' button to clear all below fields.

3. Type a unique type code name in 'Category Code' Field. For example, HR for Human Resource.

4. Check the 'Hidden' box if this category is to be hidden. Hidden Categories are used by Integration Interfaces and can be used to define specific document sets that will not appear on any 1MAGE user interface.

5. Describe the category in the 'Description' Field; this is what the end user will see during indexing and retrieval. i.e. 'Human Resource'.

6. For 'User Defined' Field: USE ONLY IF YOU ARE INTEGRATED AT THE DATABASE LEVEL WITH 1MAGE. If there is some information you want 1MAGE to store for you regarding this code file, enter it here and it will be returned in the third field of the RETURNLIST for the GCAT API.

7. To select the document types that are to be associated with the category, first scroll to the list at the bottom of the Categories panel. Double click or right click the type so that it populates the fields above. Then click save. Once all types have been added click save at the top of the panel.

Types

Code	Description

Type Code [   ] **Save**
Description [   ] **Delete**

Available Types

#2 FUEL PRICE SHEET
#2 FUEL WORKSHEET
#6 SALES REPORT
06.LSIT.CUST2
1 TEST WITH !CHAR
1099
1500 R01
99.D6-5-4-3
A/P GL TRANSACTIONS

♦ **To modify a category**

1. In the Categories panel under the Classify tab, select the category from list of available categories by double clicking one. Once characteristics have populated, make the change in the correct field and hit save.

2. To delete an associated type, double click the type from the associated types and once populated below, click 'delete'. Right clicking on the assigned type in the list of available types will also allow a user to add or remove the type. Click 'save' at the top of the panel.

♦ **To delete a category code**

1. In the Categories panel under the Classify tab, select the category from list of available categories by double clicking one. Select the delete button, confirm with 'yes' when the pop-up window appears.

Groups Tab

IMPORTANT NOTE: When any change is made throughout the screen, the 'Save' button located under the list of available groups must be clicked for changes to be saved to that group's profile.

♦ **To create a 1MAGE Group**

1. Select the Groups tab.

The list of current Groups is listed in the scroll box at the top left portion of the screen.

2. Click 'clear' to ensure data is blank. In the Group Code field, enter a code for that group. For example, HR for Human Resources Group.

3. In 'Description' field, enter what will is to be displayed in the Groups scroll box.

4. Check the 'Log API Access' box to have 1MAGE add entries to a log file containing all API driven activity for members of this Group. These log entries will capture the particulars of each time a Group Member views, prints, faxes, etc. a document from the 1MAGE archive. This log is helpful in maintaining compliance with regulatory requirements for monitoring document access. If no API logging is necessary, leave it unchecked.

5. Because Document Types must be added to the profile before Global Key Security can be applied, this field will be skipped during the initial creation of a Group.

Global Key Security

Global Key Security allows the administrator to utilize Key Security on a global (across multiple document types) level for a group. Meaning the administrator can restrict images based on a key value across multiple document types (where that index key is associated). The index key must be associated to that document type under the 'Classify' tab, prior to setting any Key Security values.

A skillful use of Global Key Security might be in an enterprise wide installation of imaging that includes several different branch stores and multiple document types. In this situation, Global Key Security might be used to restrict group members to images that belong **only** to a *specific* branch store for multiple document types. This can be done by either including or excluding a data value from an index.

Key security is optional and administrators can choose to include or exclude documents based on a key value. The administrator may use one, both or none. Tilde (~) is used for includes and Carat (^) is used for excludes. Multiple includes and excludes can be used where it is defined by a comma (,).

For example, the group can only see documents when the BRANCH index key value is equal to Dallas, this would be an include. If you wanted the group to see everything BUT documents where the BRANCH value is equal to Dallas, this would be an exclude. Therefore, if a set of documents were indexed with the key BRANCH~CITY, and Global Key Security was set to BRANCH~DALLAS, then any document type that has BRANCH as an index key, the group could only view the documents with BRANCH equal to Dallas, *not* Houston or any other value.

The index key code used for Global Key Security must be defined in at least one document type the Group has available to it.

6. In the 'Organization' drop-down, select the organization to which the group belongs. This is optional and used when 1Circulate in enabled.

7. In the 'Types' portion of the screen (bottom left), types can be added, modified and deleted.

If a type is inherited from a higher level, the 'H' column will have a checkmark. If the type is not inherited, but to be included the 'I' column will have a checkmark. If a type is inherited, but the type is excluded from this user/group, a checkmark in the 'X' column will appear.

♦ To Modify a Group's Profile record

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Make changes where appropriate. Click the save button located at the top left of the screen.

♦ To Delete a Group

1. Under the Groups tab, click the group from the list of available groups, characteristics will populate the screen. Ensure this is the group to be deleted, select the 'Delete' button. Verify in pop-up that the group is to be deleted.

♦ To Copy a Group

1. Under the Groups tab, click the group from the list of available groups, characteristics will populate the screen. Ensure this is the group to be copied, select the 'Copy' button. Then enter the Group Code, Description and make any edits to wish for the new Group.

Group Type Maintenance

In the 'Types' portion of the screen (bottom left), types can be added, modified and deleted.

If a type is inherited from a higher level, the 'H' column will have a checkmark. If the type is not inherited, but to be included the 'I' column will have a checkmark. If a type is inherited, but the type is excluded from this group, a checkmark in the 'X' column will appear.

♦ To add Type(s) to a group

One by One   Double click/right click the available type to populate it in the fields above. At this time, key security can be added if needed. Then click save. Type will populate above.

All Types within a Category   Double click/right click on the category (bottom right portion of types section). Double clicking will add all types for the highlighted category. Right clicking will give you the option to view the types within the highlighted category BEFORE adding them all. By selecting 'Add all types of EVERY category' will assign ALL types on your system.

♦ To add Key Security to a Document Type

Key Security allows the administrator to restrict images based on a key value for a specific document type. The index key must be associated to that document type under the 'Classify' tab, prior to setting any Key Security values.

A skillful use of Key Security might be in an enterprise wide installation of imaging that includes several different branch stores. In this situation, Key Security might be used to restrict group members to a document type and key value that belongs **only** to a *specific* branch store. This can be done by either including or excluding a data value from an index.

Key security is optional and administrators can choose to include or exclude documents based on a key value. The administrator may use one, both or

none. Tilde (~) is used for includes and Carat (^) is used for excludes. Multiple includes and excludes can be used where it is defined by a comma (,).

For example, the group can only see a Vendor Invoice when the BRANCH index key value is equal to DALLAS, this would be an include. If you wanted the group to see all vendor invoices BUT those where the BRANCH value is equal to DALLAS, this would be an exclude. Therefore, if a set of vendor invoices all had different branch values, only those vendor invoices with a key value of 'BRANCH~DALLAS' would be displayed for that group. Any other value for BRANCH would not be displayed.

♦ **To Modify a type in a Group**

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Click the document type in the assigned portion of 'types'. Characteristics will populate the fields below. Make necessary changes and hit save. Click the save button located at the top left of the screen as well.

♦ **To Delete a type from a Group**

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Click the document type in the assigned portion of 'types'. If the type is inherited, it can only be excluded by clicking the button 'Excluded' and 'Save'. If the type is not inherited, use the delete button to remove the type. Click the save button located at the top left of the screen as well.

Group Tag Maintenance

1MAGE maintains a set of "Tags" or "Rights Properties" that can be set to establish the "right" to perform a particular task in the 1MAGE environment. Tags are also used to establish or connect unique customizations and site-specific values for each 1MAGE installation. Tags are created and maintained in a procedure that will be described later in this document.

Tags can be attached to Users, Groups or Devices connected to the 1MAGE network. There are 2 special entities, "default_group*G" and "default_id", that are configured when 1MAGE is installed. "default_group*G" exists to facilitate customers upgrading to 1MAGE Release 9.2. This profile may not be modified.
"default_id" is set up as a User and is used to carry Global characteristics that are applied to all Users. Device Profiles are created to apply location specific characteristics to any user based on the computer terminal they are sitting at. The name of the Device must be resolved by an entry in the "hosts" file of the 1MAGE server or through network authentication.

For example, a Tag can be used to grant the right to Index using 1MAGE client interfaces (1Suite, 1Access, or V1A). If the Tag value for CLIENT.INDEX is not set to "Y" for a User or the Group to which that User belongs, that User will not be permitted to index documents. If a customized hashing algorithm has been created for a specific 1MAGE customer, then the name of the algorithm program is attached to the Tag HASHDIR.OPTION1 on the "default_id" User. Selecting a DEFAULT.PRINTER based on the proximity to the logged in computer terminal would be a good use for a Device Profile.

Tag values should first be defined for the default_id and then added for specific Groups and Users. Values attached to the default_id are employed by every login unless another value is specifically defined for a Group or User. Tag values are overridden in the sequence: default_id; Device; Group; User.

In the 'Tags' section of the Groups panel (middle bottom) you can add, modify, and delete tags. If a type is inherited from a higher level, the 'H' column will have a checkmark. If the inherited value is overridden, the 'O' column will have a checkmark.

Tags

H	O	Description	Value

Tag Code [＿＿＿＿＿＿]　　　[Save]

Description [＿＿＿＿＿＿]

Tag Value [＿＿＿＿＿＿]　　　[Delete]

Available Tag

1Access Copy Options
1Access Delete Options
1Access Indexing Options
1Access Inquiry Options
1Access Modify Options

♦ To Add a Tag to a Group

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Double click a tag from the list of available tags. Fields above will populate with code and description, user must enter the tag value. Click save. Click the save button located at the top left of the screen as well.

   Note: When a tag is hovered over in the list of available tags, a description and set of accepted values will display.

♦ To Modify a Tag in a Group

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Click the tag in the assigned portion of 'tags'. Characteristics will populate the fields below. Make necessary changes and hit save. Click the save button located at the top left of the screen as well.

♦ To Delete a tag from a Group

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Click the tag in the assigned portion of 'tags'. If the tag is inherited, the value can only be overridden. If the tag is not inherited, use the delete button to remove the tag. Click the save button located at the top left of the screen as well.

Group Scan Queues

In the 'Queues' section of the Groups tab (bottom right corner) you can add, modify, and delete queues.

The Scanning/Indexing Security By Group maintenance is where Groups may be assigned privileges to scan/index to specific queues. Image queues must be defined before Groups can be given privileges to specific queues.

Note: In order to be allowed to login to the 1MAGE 1Scan application and scan documents, Users, or the Group that they belong to must be granted access to one or more Scanning Queues.

If a queue is inherited from a higher level, the 'H' column will have a checkmark. When a queue is authorized for scanning a checkmark will appear in the 'Scan' column, and respectively for 'Index'.

♦ **To Add Queues to Groups**

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Double click a queue from the list of available queues. Fields above will populate with code and description, user must select 'Scan', 'Index' or both to assign appropriate privileges. Click save in the queue section. Click the save button located at the top left of the screen as well.

♦ **To Modify a Queue in a Group**

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Click the queue in the assigned portion of 'queues'. Characteristics will populate the fields below. Make necessary changes and hit save in the queue section. Click the save button located at the top left of the screen as well.

♦ To Delete a Queue from a Group

1. Under the Groups tab, select the group to be modified; characteristics will populate below. Click the queue in the assigned portion of 'queues', fields will populate below. Use the delete button to remove the queue. Click the save button located at the top left of the screen.

Group Workflow Roles Maintenance

At release 11.1 of 1MAGE, the workflow component is added.

In the Roles section, the Workflow Roles will be displayed that belong to that group. These roles must be setup in the workflow tab prior to adding them to any group.

The Role Code is a unique code used to identify a Role. Description field is what Users will see.

If a Role is inherited from a higher level of security a checkmark will display in the 'H' column. If a Role was added in addition to the inherited Roles, a checkmark will display in the 'I' column. If a Role is removed from the inherited Roles, the Role will display with a checkmark in the 'X' column.

♦ To Add Roles to Groups

1. Select a role from the list of 'Available Roles' by clicking it with the mouse. The Role Code and Description will display.

2. Select 'Include' and Save.

♦ To Delete Roles from Groups

1. Select a role from the associated 'Roles' list by clicking it with the mouse. The Role Code and Description will display below.

2. Select Delete.

Note: If the Role was inherited you will not be able to delete it, but rather 'exclude' it from their list of associated Roles.

Users Tab

IMPORTANT NOTE: When any change is made throughout the screen, the 'Save' button located under the list of available groups must be clicked for changes to be saved to that group's profile.

♦ To create a 1MAGE User

1. Select the Users tab.

The list of current Users is listed in the scroll box at the top left portion of the screen.

2. Click 'clear' to ensure data is blank. In the User ID field, enter the ID that has been created at the O/S level and will be the user's login.

3. In 'User's Name' field, enter the user's full name.

4. Select a group from the drop down menu that this user is to be assigned to. The group must be created first as a user MUST be assigned to an existing group.

5. Select an organization from the drop down menu that this user is associated with. This entry is used as part of 1Circulate. If this implementation of 1MAGE does not include 1Circulate, this entry is unnecessary.

6. In email address, enter the user's email address.

7. Check the 'Log API Access' box to have 1MAGE add entries to a log file containing all API driven activity for this user. These log entries will capture the particulars of each time the user views, prints, faxes, etc. a

document from the 1MAGE archive. This log is helpful in maintaining compliance with regulatory requirements for monitoring document access.   If no API logging is necessary, leave it unchecked. This setting will supersede the setting on the record for the Group to which this user belongs

8. Because Document Types must be added to the profile before Global Key Security can be applied, this field will be skipped during the initial creation of a User.

Global Key Security

Global Key Security allows the administrator to utilize Key Security on a global (across multiple document types) level for a user. Meaning the administrator can restrict images based on a key value across multiple document types (where that index key is associated). The index key must be associated to that document type under the 'Classify' tab, prior to setting any Global Key Security values.

A skillful use of Global Key Security might be in an enterprise wide installation of imaging that includes several different branch stores and multiple document types. In this situation, Global Key Security might be used to restrict users to images that belong **only** to a *specific* branch store for multiple document types. This can be done by either including or excluding a data value from an index.

Key security is optional and administrators can choose to include or exclude documents based on a key value across multiple document types. The administrator may use one, both or none. Tilde (~) is used for includes and Carat (^) is used for excludes. Multiple includes and excludes can be used where it is defined by a comma (,).

For example, the user can only see documents (multiple types) when the BRANCH index key value is equal to Dallas, this would be an include. If you wanted the user to see everything BUT documents where the BRANCH value is equal to Dallas, this would be an exclude. Therefore, if a set of documents were indexed with the key BRANCH~CITY, and Global Key Security was set to BRANCH~DALLAS, then any document type that has BRANCH as an index key, the user could only view the documents with BRANCH equal to Dallas, *not* Houston or any other value.

The index key code used for Global Key Security must be defined in at least one document type the User has available to it.

♦ **To Modify a User**

1. Under the Users tab, select the user to be modified; characteristics will populate below. Click the user from the list of available users,

characteristics will populate the screen. Make changes where appropriate. Click the save button located at the top left of the screen.

♦ **To Delete a User**

1. Under the Users tab, select the user to be deleted; characteristics will populate below. Ensure this is the user to be deleted, select the 'Delete' button. Verify in pop-up that the user is to be deleted.

User Types' Maintenance

1. In the 'Types' portion of the screen (bottom left), types can be added, modified and deleted.

If a type is inherited from a higher level, the 'H' column will have a checkmark. If the type is not inherited, but to be included the 'I' column will have a checkmark. If a type is inherited, but the type is excluded from this user/group, a checkmark in the 'X' column will appear.

♦ **To add Type(s) to a user**

One by One	Double click/right click the available type to populate it in the fields above. At this time, key security can be added if needed. Then click save. Type will populate above.
All Types within a Category	Double click/right click on the category (bottom right portion of types section). Double clicking will add all types for the highlighted category. Right clicking will give you the option to view the types within the highlighted category BEFORE adding them all. By selecting 'Add all types of EVERY category' will assign ALL types on your system.

♦ **To add Key Security to a Document Type**

> Key Security allows the administrator to restrict images based on a key value for a specific document type. The index key must be associated to that document type under the 'Classify' tab, prior to setting any Key Security values.

> A skillful use of Key Security might be in an enterprise wide installation of imaging that includes several different branch stores. In this situation, Key Security might be used to restrict users to a document type and key value

that belongs **only** to a *specific* branch store. This can be done by either including or excluding a data value from an index.

Key security is optional and administrators can choose to include or exclude documents based on a key value. The administrator may use one, both or none. Tilde (~) is used for includes and Carat (^) is used for excludes. Multiple includes and excludes can be used where it is defined by a comma (,).

For example, the user can only see a Vendor Invoice when the BRANCH index key value is equal to DALLAS, this would be an include. If you wanted the user to see all vendor invoices BUT those where the BRANCH value is equal to DALLAS, this would be an exclude. Therefore, if a set of vendor invoices all had different branch values, only those vendor invoices with a key value of 'BRANCH~DALLAS' would be displayed for that user. Any other value for BRANCH would not be displayed.

♦ To Modify a type for a User

1. Under the Users tab, select the user to be modified; characteristics will populate below. Click the document type in the assigned portion of 'types'. Characteristics will populate the fields below. Make necessary changes and hit save. Click the save button located at the top left of the screen as well.

♦ To Delete a type from a User

1. Under the Users tab, select the user to be modified; characteristics will populate below. Click the document type in the assigned portion of 'types'. If the type is inherited, it can only be excluded by clicking the button 'Excluded'. If the type is not inherited, use the delete button to remove the type. Click the save button located at the top left of the screen as well.

User Tag Maintenance

1MAGE maintains a set of "Tags" or "Rights Properties" that can be set to establish the "right" to perform a particular task in the 1MAGE environment. Tags are also used to establish or connect unique customizations and site-specific values for each 1MAGE installation. Tags are created and maintained in a procedure that will be described later in this document.

Tags can be attached to Users, Groups or Devices connected to the 1MAGE network. There are 2 special entities, "default_group*G" and "default_id", that are configured when 1MAGE is installed. "default_group*G" exists to facilitate customers upgrading to 1MAGE Release 9.2. This profile may not be modified.
"default_id" is set up as a User and is used to carry Global characteristics that are applied to all Users. Device Profiles are created to apply location specific characteristics to any user based on the computer terminal they are sitting at. The name of the Device must be resolved by an entry in the "hosts" file of the 1MAGE server or through network authentication.

For example, a Tag can be used to grant the right to Index using 1MAGE client interfaces (1Suite, 1Access, or V1A). If the Tag value for CLIENT.INDEX is not set to "Y" for a User or the Group to which that User belongs, that User will not be permitted to index documents.   If a customized hashing algorithm has been created for a specific 1MAGE customer, then the name of the algorithm program is attached to the Tag HASHDIR.OPTION1 on the "default_id" User. Selecting a DEFAULT.PRINTER based on the proximity to the logged in computer terminal would be a good use for a Device Profile.

Tag values should first be defined for the default_id and then added for specific Groups and Users. Values attached to the default_id are employed by every login unless another value is specifically defined for a Group or User. Tag values are overridden in the sequence: default_id; Device; Group; User.

In the 'Tags' section of the Users panel (middle bottom) you can add, modify, and delete tags. If a type is inherited from a higher level, the 'H' column will have a checkmark. If the inherited value is overridden, the 'O' column will have a checkmark.

♦ To Add a Tag to a User

1. Under the Users tab, select the user to be modified; characteristics will populate below. Double click a tag from the list of available tags. Fields above will populate with code and description; user must enter the tag value. Click save. Click the save button located at the top left of the screen as well.

   Note: When a tag is hovered over in the list of available tags, a description and set of accepted values will display.

♦ To Modify a Tag for a User

1. Under the Users tab, select the user to be modified; characteristics will populate below. Click the tag in the assigned portion of 'tags'. Characteristics will populate the fields below. Make necessary changes and hit save. Click the save button located at the top left of the screen as well.

♦ **To Delete a tag from a User**

1. Under the Users tab, select the user to be modified; characteristics will populate below. Click the tag in the assigned portion of 'tags'. If the tag is inherited, the value can only be overridden. If the tag is not inherited, use the delete button to remove the tag.

User Scan Queues

In the 'Queues' section of the Users panel (bottom right corner) you can add, modify, and delete queues.

The Scanning/Indexing Security by user maintenance is where users may be assigned privileges to scan/index to specific queues. Image queues must be defined before users can be given privileges to specific queues.

Note: In order to be allowed to login to the 1MAGE 1Scan application and scan documents, Users, or the Group that they belong to must be granted access to one or more Scanning Queues.

If a type is inherited from a higher level, the 'H' column will have a checkmark. When a queue is authorized for scanning a checkmark will appear in the 'Scan' column, and respectively for 'Index'.

♦ **To Add Queues to a User**

1. Under the Users tab, select the user to be modified; characteristics will populate below. Double click a queue from the list of available queues. Fields above will populate with code and description, user must select 'Scan', 'Index' or both to assign appropriate privileges. Click save. Click the save button located at the top left of the screen as well.

♦ **To Modify a Queue for a User**

1. Under the Users tab, select the user to be modified; characteristics will populate below. Click the queue in the assigned portion of 'queues'. Characteristics will populate the fields below. Make necessary changes and hit save. Click the save button located at the top left of the screen as well.

♦ To Delete a Queue from a User

1. Under the Users tab, select the user to be modified; characteristics will populate below. Click the queue in the assigned portion of 'queues', fields will populate below. Use the delete button to remove the queue. Click the save button located at the top left of the screen as well.

User Workflow Role Maintenance

At release 11.1 of 1MAGE, the workflow component is added.

In the Roles section, the Workflow Roles will be displayed that belong to that user. These roles must be setup in the workflow tab prior to adding them to any user.

The Role Code is a unique code used to identify a Role. Description field is what Users will see.

If a Role is inherited from a higher level of security a checkmark will display in the 'H' column. If a Role was added in addition to the inherited Roles, a checkmark will display in the 'I' column. If a Role is removed from the inherited Roles, the Role will display with a checkmark in the 'X' column.

♦ To Add Roles to a User

1. Select a role from the list of 'Available Roles' by clicking it with the mouse. The Role Code and Description will display.

2. Select 'Include' and Save.

♦ To Delete Roles from a User

1. Select a role from the associated 'Roles' list by clicking it with the mouse. The Role Code and Description will display below.

2. Select Delete.

   Note: If the Role was inherited you will not be able to delete it, but rather 'exclude' it from their list of associated Roles.

Code Files Tab

Administrators can manage organizations, Saas IDs, Scanned image queues, Tags, 1MAIL Parameters, and Disk Space Checking.

Organizations
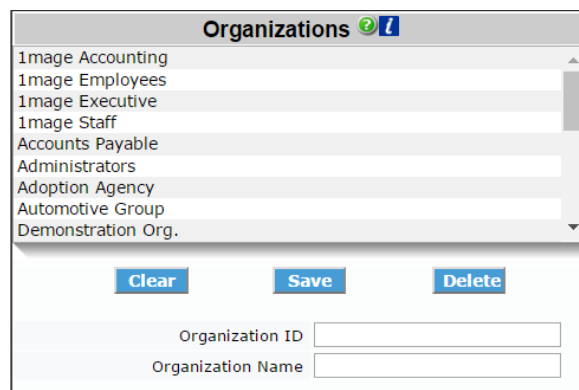
At Release 9.2 of 1MAGE the 1Circulate feature is added.

One characteristic of a Circulation Participant is the Business Unit or Organization in which they work. This information is included on the V1A information grids that define Circulated items or Circulation Participants to provide information to a Circulation recipient about the individual(s) who have contributed to the circulated item. This Organization is not the same as the 1MAGE user's Group (defined later in this document) which controls individual 1MAGE user's permissions and other properties.

♦ To add a new 1MAGE 1Circulate Organizations

This function is only applicable if the 1Circulate feature is installed and authorized.

1. Under the Code File tab, locate the Organizations section.

A list of current organizations is listed alphabetically in the scroll box.

2. Click 'clear' to ensure data is blank. In organization ID field enter an identification code. For example, AP for the Accounts Payable organization.

3. In the Organizational Name field, enter what the user will see. For example, Accounts Payable.
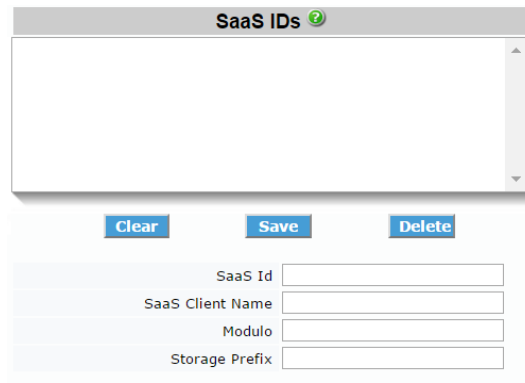
4. Click 'Save' to save changes.

SaaS IDs

SaaS (Software as a Service) IDs are created if the administrator is operating more than one customer site on the same box and needs to have their images and data separated. Each ID gives each location its own identity.

♦ **To add a SaaS ID**

1. Under the Code Files tab, locate the SaaS ID section. The top portion displays all available SaaS IDs.

2. In the SaaS ID field, enter a new ID. This is a code.

3. In the SaaS Client Name, enter their name; this will be what is displayed.

4. In the Modulo field, enter a positive prime number (this represents how many directories there are in the storage area for that SaaS ID).

5. In the Storage Prefix field, enter the directory path that the images will be stored in.

Image scanning queues

1MAGE predefines FAX-QUEUE1 and SCAN-QUEUE1 queues. Create a new image queue if needed for scanning and indexing security.

♦ **To add image queues**

1. Under the Code Files tab, locate the Scanned Image Queues section. The top portion displays all available queues.

2. Type a unique queue code in the 'Queue Code' field. For example, HR for the Human Resource queue.

3. In the description field, enter the description that will display. For example, Human Resources.

4. In the Control Directory, enter the name. This is the directory name that will be created or accessed inside of the "unindexed" sub-directory in the 1MAGE account. Creating this directory in lower-case characters will facilitate navigation at the Operating System level. For a list of current directories, click 'List'.

5. In the Queue Directory, enter the name. This is the directory name that will be created or accessed inside of Control Directory. Creating this directory in lower-case characters will facilitate navigation at the Operating System level.

6. Click save.

System Tag Maintenance

♦ **To Add Tags**

1. Under the 'Code Files' tab, locate the Tags section at the lower left hand side. Tags may be added, maintained, or deleted here.

The top portion of the panel displays an alphabetical list of all tags currently on the system.

Click the 'clear' button to ensure all data is cleared.

1. In the 'Tag ID' field, enter the a unique ID.

2. In short description, enter a short explanation that will identify the tag. This description will be displayed in the list of available tags.

3. In the 'long description' field, enter what is to display when a user hovers over the short description in the list of available tags. It is recommended to note acceptable values.

4. Select from the drop down menu, what Validation type to be used on this tag, if any.

5. In the Validation File field, enter the validation file name to be used. (e.g. 1MAGE.COVER)

6. In the Validation Fields field, enter the record in the validation file to be used.

7. In the Validation List field, enter a list of acceptable values. (e.g."Y" for yes or "N" for no)

8. Check box to Upcase Tag Value, if checked value will always be Uppercased.

9. Select which entity you wish the tag to be available to. (Note: currently, only group and user entities are enabled)

♦ To Modify a Tag

1. Select a tag from the list of available tags, characteristics will populate below. Edit the field you wish to change and select Save.

♦ To delete a tag that is not reserved

Note Tags marked with an asterisk (*) are reserved and may not be deleted.

1. Select a tag from the list of available tags, characteristics will populate below. Click the Delete button.

1MAIL Parameters

1MAIL is a server based emailing tool used to send documents through 1ACCESS or an image enabled application using GSEML API. Here you will enter your server details and select save.

1. In the Email Server field, enter your hostname/IP Address of the Email Server "SMTP". For example: sidesmtp.1mage.com, smtp.integra.net

2. In the Email Server Port field, enter the port number the "SMTP" service is listening on (e.g. 110, 587).

3. In the Email Login field, enter the account/user name that's being used for sending emails.

4. In the Email Password field, enter the associated password for that account/user name.

Disk Space Checking

The threshold percentage is when you want 1MAGE to display a warning and/or abort a process.

1. Under the 'Code Files' tab, locate the Disk Space Checking section
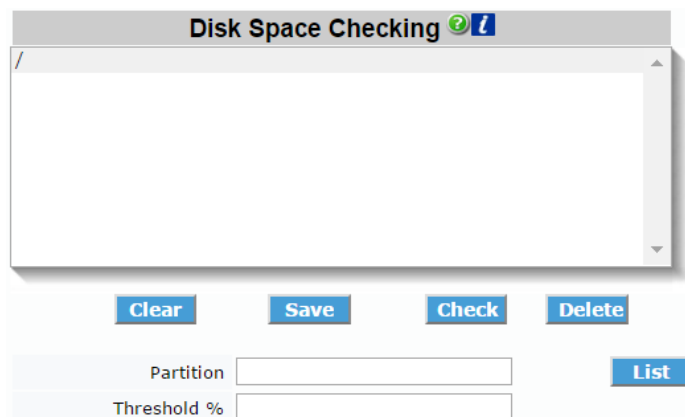
♦ **To Add a Partition**

1. Click the 'List' button to select which partition to set the disk space threshold for.

2. Enter the threshold percentage that will invoke an error message and stop indexing to that partition. Click Save.

♦ **To Modify a Partition**

1. Select the partition from the list, fields will populate below.

2. Edit the field and click save.

♦ **To Delete a Partition**

1. Select the partition from the list, fields will populate below.

2. Click the 'Delete' key

♦ **To Check Details of the Partitions**

1. Click 'List', a list of current partitions and space information is shown in a pop-up box.

Partition List ⦾

Mount Point	1K Block	Used	Available	used %
/	51606140	21666148	27318552	45
/boot	495844	34543	435701	8
/home	22750392	176104	21418604	1

OK

♦ **To Check Thresholds of the Partitions**

1. By clicking 'Check' the threshold limits will be checked and a message will populate notifying the user of the status.

Disk Space Checking ⦾

All partitions within threshold.

OK
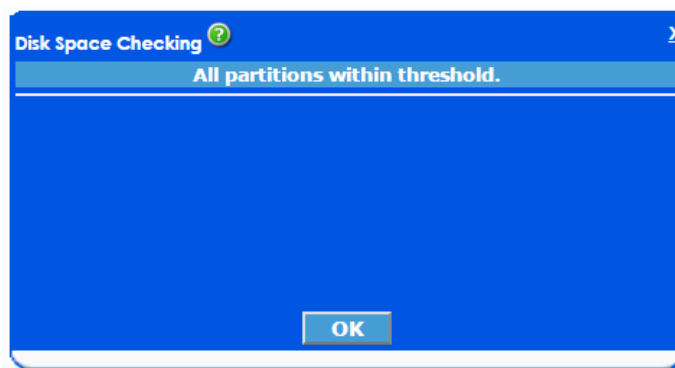
If a partition exceeds the threshold, the following will display with the correct data.

Disk Space Checking ⦾

Disk Space Checking Failed

/: 14% used

OK
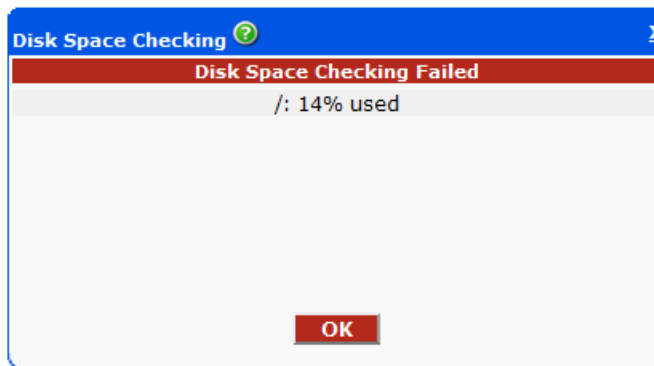
Use this to check a directory's available disk space and to set the "high water mark" for valid image storage partitions. (1MAGE displays a warning and/or aborts a process when this threshold is reached.)

Configuring disk space checking is a required installation procedure.

Workflow Tab

At release 11.1 of 1MAGE, the workflow component is added.

Workflow describes the course a document will travel and whom will see it along the route. Administrators have the ability to create, modify and delete roles (to be assigned to groups or users) and routes (the course the document will follow) through this tab. A reporting menu is also available to get an overview of the multiple workflows. With this release, our workflow is lateral, meaning you can drop documents into a workflow and pass it along, but no rules are in place.

Workflow Menus

1. Roles- Adding, modifying and deleting of Roles.

2. Code File- for a future release.

3. Routes- Adding, modifying and deleting of Routes.

4. Reports- Report detailing Active, Inactive and Completed Workflows.

5. Help- Help Documentation.
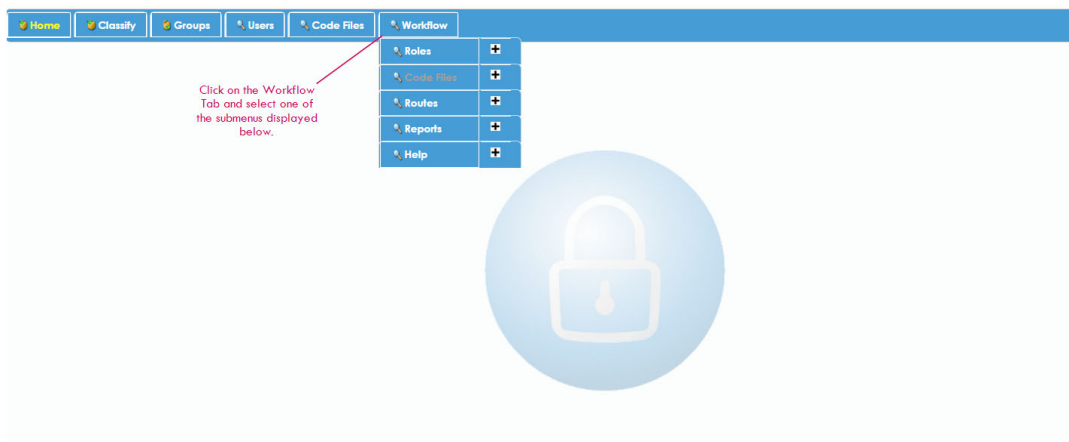
Note: QID is the unique identifier automatically assigned to each new individual Workflow (ie:1000). Not to be confused with an ID of either the Route or the Role, which an administrator creates.

Workflow Roles

Roles sub-menu is used to create, modify and delete roles. You must first create Roles before you can create a Route.

♦ **To Create a Role**

1. Under the Workflow Tab> Roles, a list of current roles will be presented. To create a new role, you must fill out the ID, Description, and Time Allocated (this is a suggested amount of time before it will show expired in the report). Data Tag and Code Files are not available for this version and will be greyed out.

2. Click Save. User will populate in the list above.

3. You will then be prompted to create a Workflow. Depending on your objective, you may select yes or no.

♦ **To Modify a Role**

1. Under Workflow tab> Roles menu, select an available Role and the characteristics will populate below. Make the appropriate changes and select Save.

♦ **To Delete a Role**

1. Under Workflow tab> Roles menu, select an available Role and the characteristics will populate below. Select Delete. **You may only delete a Role that is <u>not</u> assigned to a Workflow.**

Workflow Routes

Routes sub-menu is used to create, modify and retire routes. You must first create Roles before you can create a Route.

This menu screen displays the name of the Route, number of Roles that have been assigned to it, who and when the route was created, last time it was updated and the options to edit or retire the Route.

Workflow Description	No. of Roles	Created By	Created On	Updated On	Edit	Retire
6315test	2	imageadm	06/03/15 09:50:15	06/05/15 09:48:58		
6315test	2	imageadm	06/05/15 09:51:41	06/05/15 09:51:41		
Accounts Payable Invoices	3	imageadm	11/04/15 13:10:32	10/20/16 14:43:26		
Accounts Receivable	2	imageadm	04/15/15 09:31:18	04/15/15 09:31:18		
Customer Service	2	imageadm	04/15/15 09:32:40	04/15/15 09:32:40		
Shipping	2	imageadm	04/15/15 09:33:55	04/20/15 08:29:44		
testMEagan	2	imageadm	04/16/15 06:29:58	04/16/15 06:29:58		
testing529	2	imageadm	05/29/15 15:20:39	05/29/15 15:20:39		

♦ **To Create a Route**

Do one of the following:

A. In the Menu dropdown, Select Create New Workflow.
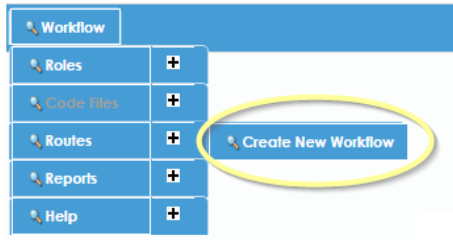
B. On the Routes Screen, select Create New Workflow button.

C. After creating a Role, a popup window appears asking if you would like to create a Workflow Route, select yes.
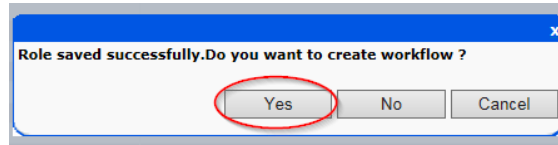
1. Once you have selected to Create New Route by one of the selections above, the builder screen pops up.
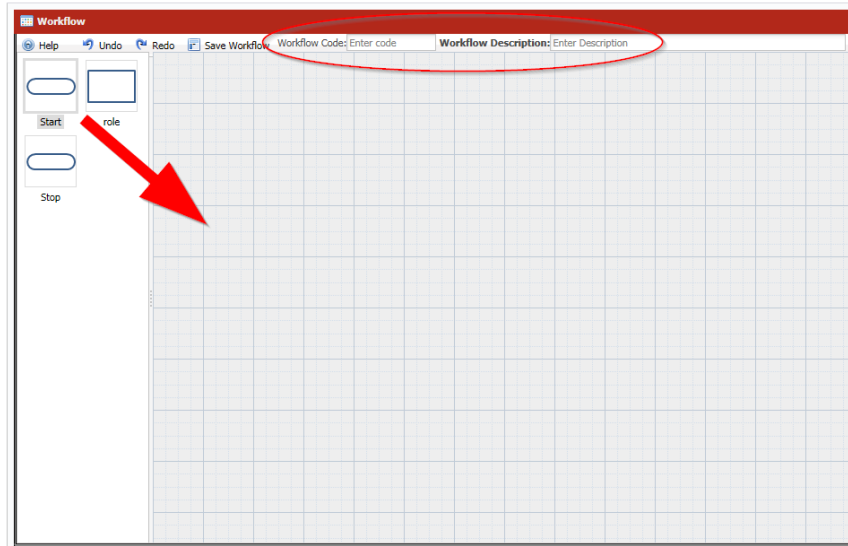
2. User must fill out the Workflow Code and Description located at the top.

3. Start your Workflow Route by dragging the start icon onto the grid.

4. When you drag your first Role onto the grid, you will be prompted to select a Role from the list.
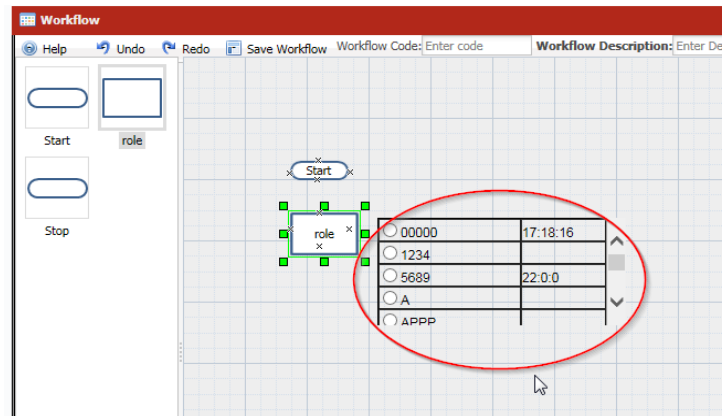
Once selected a popup box will ask if you would like to override the default time allocation. This is optional to override. Select ok.
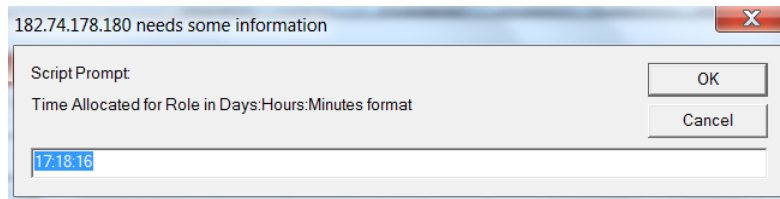
5. Once you have added all the appropriate roles, drag the stop icon onto the grid. Connect the order you wish the Workflow to operate in using the cursor to draw the lines from box to box.
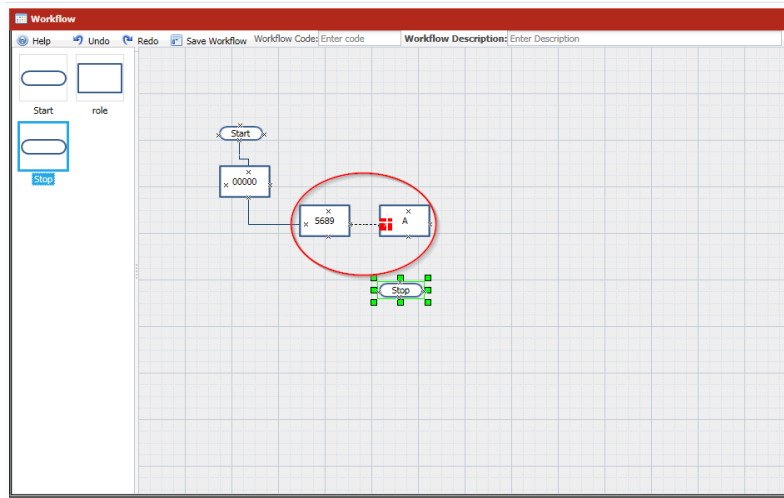
6. Select the 'Save Workflow' Route icon on the top toolbar. This will close the window and update the Routes screen.

♦   **To Modify a Route**

1. In the Route screen, identify the route you wish to modify. Select the 'Edit' icon for that Workflow.

2. The builder screen will populate and you will be able to make any necessary changes. Save Workflow.

♦   **To Retire a Route**

1. In the Route screen, identify the Route you wish to retire. Select the 'Retire' icon for that Workflow.

2. A confirmation window will populate, confirm yes.

Workflow Reports

The Reports submenu displays all workflows including active, inactive and completed as a default. User can refresh the grid by selecting 'All', 'Active', 'Completed' or 'Inactive' to narrow down their matches.

The Report details each Workflow (QID) and the characteristics of it. Characteristics include: number of documents in each Workflow, name of Workflow Route, status (active, inactive or completed), who and when it was initiated, the current status of who has the Workflow and for how long.

Telnet Menus

Normally, users will use the 1MAGE 1Suite, 1Access and V1A user interfaces to index and retrieve documents. However, access to these functions is available from a terminal emulation (green screen) menu. If a non-administrative user logs on to the 1mage server in a terminal emulation session, they will be presented with this menu.

1MAGE administrators must monitor the status of the 1MAGE phantoms. When they log in through terminal emulation the 1MAGE Main Menu displays five menu options: **maintenance**, **phantoms**, **faxes**, **reports** and **exit**. If the 1FAX software is not installed or authorized, the "faxes" menu item will not appear.

If you select a submenu in the telnet session and it is only available in the GUI, this will display.

```
UUUU    UUUU    SSSSSSSSS     EEEEEEEEEEEE
UUUU    UUUU    SSSSSSSSSSS   EEEEEEEEEEEE
UUUU    UUUU    SSSS          EEEE
UUUU    UUUU    SSSS          EEEEEEEEEE
UUUU    UUUU    SSSSSSSSSSS   EEEEEEEEEE
UUUU    UUUU    SSSSSSSSSSS   EEEE
UUUU    UUUU          SSSS    EEEE
UUUUUUUUUUUU    SSSSSSSSSSS   EEEEEEEEEEEE
 UUUUUUUUUU     SSSSSSSSS     EEEEEEEEEEEE

GGGGGGGGGG    UUUU    UUUU   IIIIIIIIIIII
GGGGGGGGGGGG  UUUU    UUUU   IIIIIIIIIIII
GGGG    GGGG  UUUU    UUUU       IIII
GGGG          UUUU    UUUU       IIII
GGGG  GGGGGG  UUUU    UUUU       IIII
GGGG  GGGGGG  UUUU    UUUU       IIII
GGGG    GGGG  UUUU    UUUU       IIII
GGGGGGGGGGGG  UUUUUUUUUUUU   IIIIIIIIIIII
 GGGGGGGGGG    UUUUUUUUUU    IIIIIIIIIIII
```

images

Use the *images* menu to index images; make changes to current indexes; and call up previously indexed images.

```
<1. images

 A. index images
 B. change an index
 C. image inquiry
```

faxes

Use the *faxes* menu to maintain the phone codes database and define and maintain fax cover sheets.

```
<3. faxes      > 4. reports      5. exit
+------------------------------+
| A. 1fax administration    => |
| B. phone codes               |
| C. cover sheet maintenance   |
| D. reports                => |
+------------------------------+
```

faxes – (sub)

1fax administration

Use the *1fax administration* submenu to start and stop fax processes.

```
<3. faxes      > 4. reports      5. exit
+------------------------------+
|<A. 1fax administra+--------------------------+
| B. phone codes    | A. start 1fax daemons    |
| C. cover sheet mai| B. stop 1fax daemons     |
| D. reports        | C. status of 1fax daemons|
+------------------+--------------------------+
```

faxes- (sub)

reports

Use the *reports* submenu to gather statistics about fax related activities.

```
<3. faxes     > 4. reports     5. exit
+-----------------------------+
| A. 1fax administration    => |
| B. phone codes              |
| C. cover sheet maintenance  |
|<D. reports          +--------------------+
+---------------------| A. list queued faxes |
                      | B. inbound fax log   |
                      | C. outbound fax log  |
                      | D. phone directory   |
                      | E. purge 1fax log    |
                      +--------------------+
```

phantoms

Use the *phantoms* menu to define and inquire about running phantoms and to start and stop standard phantom processes.

```
<2. phantoms  > 3. faxes      4. reports
+-----------------------------+
| A. define phantom processes          |
| B. list running phantoms             |
| C. start all defined phantoms        |
| D. stop all defined phantoms         |
| E. start boot phantoms               |
| F. stop boot phantoms                |
| G. selective phantom start/stop => |
+-----------------------------+
```

phantoms – (sub)

selective phantom start/stop

Use the *selective phantom start/stop* submenu to start and stop optional phantom processes.

```
+-----------------------------------------------------------+
| A. start cold indexing and rendition printing (process.packet) |
| B. stop cold indexing and rendition printing (process.packet)  |
| C. start dms saas client 100 barindex (dms.barindex100)     |
| D. stop dms saas client 100 barindex (dms.barindex100)      |
| E. start dms saas client 200 barindex (dms.barindex200)     |
| F. stop dms saas client 200 barindex (dms.barindex200)      |
| G. start process 1scanserv docs (process.extscan)           |
| H. stop process 1scanserv docs (process.extscan)            |
+-----------------------------------------------------------+
```

maintenance

Use the GUI menu for options A-E, I and L.

```
<1. maintenanc> 2. phantoms     3. faxes
+-----------------------------+
| A. index key codes          |
| B. image type codes         |
| C. image category codes     |
| D. define scan queues       |
| E. group/user profile maintenance |
| F. system parameters        |
| G. environment variables    |
| H. disk space checking      |
| I. system tag maintenance   |
| J. define cold templates    |
| K. workflow master maintenance |
| L. organization maintentance |
| M. define network printers  |
+-----------------------------+
```

exit

Use the IU menu to logoff from the 1MAGE administration function or to see the release version and any pertinent notes.

```
        <5. exit        >
--------------------+
A. exit             |
B. patch information |
--------------------+
```

Screen Design

Each 1MAGE Codes Maintenance screen has the following areas: Screen header, Code entry, Code definition, Multi-value display, Page of page, and a Prompt, message, and error display area.
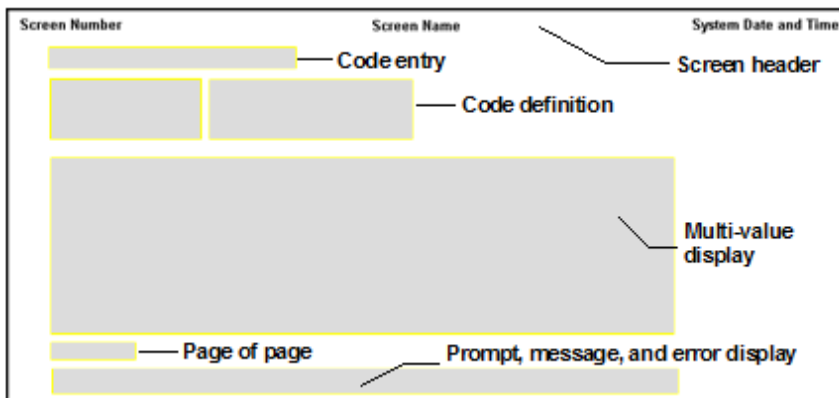
Screen header

The screen header area is a data display area at the top of the screen which shows the 1MAGE screen number and name and the system date and time.

Code entry

Code entry is a data entry field used to create or review a code or reference in the 1MAGE database.

Code definition

Code definition fields are data entry fields, which give meaning to codes by naming the parameters within which code data must be entered. A code definition field may be modified at any time after the code is created.

COLD/ERM template reference codes

A COLD/ERM (Computer Output to Laser Disk/Electronic Reports Management) document is automatically indexed by PROCESS.PACKET **only** if a COLD template is associated with it. The template assigns an Document Type to and pinpoints the location of selected Index Keys by line, column, and length.

```
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
1
2          Column     Length
3
4
5  Line
6
7      If the data for index key date is
8      located on line 4, column 10 and
9      is 8 characters in length, 1MAGE
10     will find it in the shaded area.
11
12
13
```
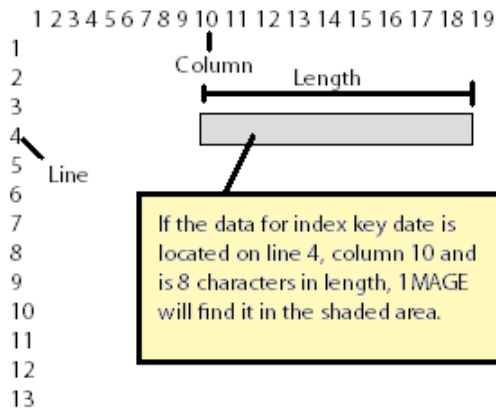
To add COLD templates

Step 1.   Select "define cold templates" from the maintenance menu.

```
<1. maintenanc> 2. phantoms    3. fax
+----------------------------------+
| A. index key codes               |
| B. image type codes              |
| C. image category codes          |
| D. define scan queues            |
| E. group/user profile maintenance |
| F. system parameters             |
| G. environment variables         |
| H. disk space checking           |
| I. system tag maintenance        |
| J. define cold templates         |
| K. workflow master maintenance   |
| L. organization maintentance     |
| M. define network printers       |
+----------------------------------+
```

The Cold Template Maintenance screen, IM120, displays.

```
IM120              Cold Template Maintenance        10:34:25 02 MAR 2012

    Reference       \\\\\\\\\\\\\\\\\\\

01) Description
02) Image Type Code
03) Multiple Index
04) Page Blocking

Ref  Index Key Code      Description        Line Column Length
---  ------------------- ------------------ ---- ------ ------




Template, "?" to search, "N xxx" for new Reference or "EX".  Upper case only.
```

Step 2. Enter a unique COLD template reference code.

1MAGE suggests that you establish a nomenclature correspondence between the report and its reference by using each report's identifier, such as its name or number, to create a reference. For instance if a report is known as an Accounts Receivable 10 report, then create a reference called AR10.

At	Do This
Reference	Type N, space, a unique COLD reference code, and press Enter. If the COLD reference already exists in the 1MAGE record, the system populates the definition field.

<div style="background:#fffff0">

Reference   N AR10\\\\\\\\\\\\\\
</div>

01) Description	Type a unique COLD template reference description and press Enter.

<div style="background:#fffff0">

01) Description   Accounts Receivable 10 Report\\\\\\\\\\\\\\\
</div>

02) Image Type Code	Type a defined Image Type Code and press Enter.

Do *one* of the following:

- Type an Image Type Code and press Enter.
- Type ? and press Enter. 1MAGE displays a numbered list of Image Type Codes and their descriptions. If there are so many records in the file that they cannot be displayed on one screen, type F to page forward, B to page backward, or P# for page number until you locate the code you want. Type the line reference number that precedes your chosen code and press Enter. Your selected code populates the Image Type Code field.

<div style="background:#fffff0">

02) Image Type Code AP10\\\\\\\\\\\\\\
</div>

Note: You may use the same Type Code to define *more than one* COLD template; for instance, use REPORT to define COLD templates for both AR10 and AR30 reports.

03) Multiple Index	Type either Y or N and press Enter.
	Y(es) means that each page of the COLD file is indexed individually and N(o) means that the entire report is indexed as a single document.
	For example, enter Yes when the output is going to be printed on special forms such as invoices or statements.
	For example, enter Y if you wish to index a different employee's name on each page of the report, but Enter N for a 500 page accounting report that you want to index as a single document.
04) Page Blocking	When a COLD report is indexed and stored in the 1MAGE archive the pages of text that comprise the file can be stored in "Blocks" of pages. For the purpose of balancing the sizes of files stored by 1MAGE the desired effect is to create a block of pages that approximates the size of a scanned image file. Depending on the density of text on the COLD pages, the Page Blocking factor may vary. As a rule of thumb, 50 is a good blocking factor.

Step 4. Define the template's indexing keys and their line, column, and length characteristics.

Use a file editor to examine the contents of spooled output when establishing an index key's locators of line, column, and length.

Important

☑ Not every index key associated with a Document Type *must* be used to define the template. For example, even though Date, Division, Department, and State are all index keys associated with AR10, State should not be included in the AR10 *template* definition because the State Code does not appear on an AR10 *report*.

☑ Additional indexing information can be derived by defining index keys that are tied to translation files. For example, if Account Number is defined in the template, and if Account Number provides translation to Customer Name, Division, and Department, then Customer Name, Division, and Department can be derived without retrieving them from the report data

Do *one* of the following:

- Add an index key
   Type A and press Enter. The cursor displays at the end of the type code list.
   * Type an index key code and press Enter.

   * Type **?** and press Enter. 1MAGE displays a numbered list of index key codes and their descriptions. If there are so many records in the file that they cannot be displayed on one screen, type F to page forward, B to page backward, or P# for page number until you locate the code you want. Type the line reference number that precedes your chosen code and press Enter. Your chosen type displays on the next available line.

Add more index keys in like manner or press Enter to display the cursor at the prompt.

- **Delete an index key** Type the line number and press Enter; the cursor displays at the line. Press the spacebar one time and then press Enter; the index key is deleted and the list is refreshed.
- **Save the record** Type S and press Enter.
- **Delete a COLD template** Type D and press Enter. The message, ARE YOU SURE? (Y/N) displays. If you answer Y(es), the template is deleted.

At	Do This
Index Key Code	Type an index key code which has previously been associated with the Image Type Code entered in field 02 and press Enter. The cursor displays in the Line field.
	For example:
	Important: When you are determining line number for the following, do not count the lines on which command codes are written; line one is the first line of ASCII text.
Line	Type the line number of the report where the index key is located and press Enter. The cursor displays in the Column field.
	For example, if *Division* is an index key that is located on line 2 of the report, type 2 and press Enter.

```
Ref  Index Key Code        Description            Line
---  ------------------    ------------------     ----
05)  DIV                   Division Code            2
```

Column	Type the column number of the report where the first character of the index key appears and press Enter. The cursor displays in the Length field.
	For example, if the first character in the date begins at column 1, type 1 and press Enter.

```
Ref  Index Key Code        Description          Line Column
---  ------------------    ------------------   ---- ------
05)  DIV                   Division Code          2    1
```

Add more index keys in like manner. When you are finished, press Enter to display the cursor at the prompt.

Workflow master reference codes

To add workflow master codes

Step 1.   Select *"workflow master"* from the maintenance menu.

```
          1MAGE Main Menu - Rel 11.1.0
<1. maintenanc> 2. phantoms    3. faxes       4. reports      5. exit
+-------------------------------+
| A. system parameters          |
| B. environment variables      |
| C. disk space checking        |
| D. define cold templates      |
| E. workflow master maintenance |
| F. define network printers    |
| G. setup 1scan server queues  |
+-------------------------------+
```

The Workflow Master Maintenance screen, IM125, displays.

```
IM125              Workflow Master Maintenance        10:38:04 02 MAR 2012

    Reference         \\\\\\\\\\

01) Description

Ref  Type Code          Description
---  ------------------ --------------------















Workflow Master, "?" to search, "N xxx" for new Reference or "EX".  Upper case o
nly.
```

Step 2. Enter a unique Workflow Master reference code.

At	Do this
Reference	Type N, space, a unique COLD reference, and press Enter. If the COLD reference already exists in the 1MAGE record, an error message displays stating that the COLD reference already exists.

Type N for New   Enter a Space

Reference   N IP█\\\\\

Type a unique Workflow
Master code not to exceed
8 characters
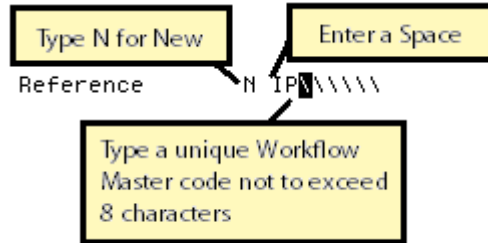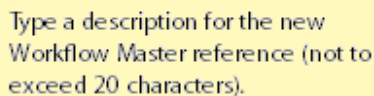
Step 3. Define field 01; data entry is required.

At	Do this
01) Description	Type a unique Workflow Master reference description and press Enter.

01) Description   INVOICE PROCESSING█\

Type a description for the new
Workflow Master reference (not to
exceed 20 characters).

A code description may include any combination of 20 alphanumeric characters and spaces.

At	Do this
Type Code	Do *one* of the following: • Type an Image Type Code and press Enter; the cursor displays in the Type Code field. • Type ? and press Enter. 1MAGE displays a numbered list of Image Type Codes and their descriptions. If there are so many records in the file that they cannot be displayed on one screen, type F to page forward, B to page backward, or P# for page number until you locate the code you want. Type the line reference number which precedes your chosen code and press Enter. Your selected code populates the Image Type Code field. Press Enter again and the cursor displays in the Type Code field.

```
Ref   Type Code            Description
---   ------------------   ------------------
02)   BOL                  Bill Of Lading
```

Add more type codes in like manner or press Enter to display the cursor at the prompt.

Step 4.   Do *one* of the following:

- **Add an Image Type** Type A and press Enter. The cursor displays at the end of the type code list.
    * Type an Image Type Code and press Enter.

    * Type **?** and press Enter. 1MAGE displays a numbered list of Image Type Codes and their descriptions. If there are so many records in the file that they cannot be displayed on one screen, type F to page forward, B to page backward, or P# for page number until you locate the code you want. Type the line reference number that precedes your chosen code and press Enter. Your chosen type displays on the next available line.

- **Delete an Image Type Code** Type the line number and press Enter; the cursor displays at the line. Press the spacebar one time and then press Enter; the code is deleted and the list is refreshed.
- **Save the record**   Type S and press Enter.

Step 1.   Select "*system parameters*" from the maintenance menu.

```
<1. maintenanc> 2. phantoms    3. faxe
+-------------------------------+
| A. index key codes            |
| B. image type codes           |
| C. image category codes       |
| D. define scan queues         |
| E. group/user profile maintenance |
| F. system parameters          |
| G. environment variables      |
| H. disk space checking        |
| I. system tag maintenance     |
| J. define cold templates      |
| K. workflow master maintenance |
| L. organization maintentance  |
| M. define network printers    |
+-------------------------------+
```

The System Parameters Maintenance screen displays Fax Prefix, Fax Suffix, Cache aging, URL Aging, Delete Directory, Type Code Persistence, and PP Key Validation options pre-set.

```
IM140              System Parameters Maintenance          10:40:27 02 MAR 2012

01) Fax Prefix
02) Fax Suffix

03) Cache Aging     10
04) URL Aging       1

-------------- Indexing Options ---------------
05) Delete Directory        Y
06) Master Type
07) Type Code Persistence   N
08) PP Key Validation       N




(M)odify, (S)ave, Line Number or (EX)it :\\\\
```

Step 2.   Fax prefix and suffix can be configured in VSIFAX.

At	Do this
01) Fax Prefix	Enter fax prefix if there is one.
02) Fax Suffix	**Enter fax suffix if there is one.**
03) Cache aging	Enter number of days to keep on disk. Cache aging defaults to ten days

Step 3.   For indexing, define fields 04-08.

At   **Do this**

04) URL Aging   Enter number of days to keep in temporary files in
                              /1MAGE/1MAGE.URL after retrieval.

05) Delete Directory   Delete Directory defaults to Y.

                              To send images to the 1MAGE. DELETE queue: type Y(es) and press
                              Enter. If you do not wish to send images to the 1MAGE. DELETE
                              queue, type N(o) and press Enter.

                              During *manual* indexing 1MAGE sends deleted images to the
                              1MAGE. DELETE queue when you type Y in response to the question
                              OKAY TO DELETE THIS ENTIRE IMAGE (Y/N) and press Enter.

                              If you set Delete Directory to N and you answer Y in response to
                              the question OKAY TO DELETE THIS ENTIRE IMAGE (Y/N), then
                              images are permanently deleted from the system.

06) Master type   Master type definition may be used by imaging installations who wish to use a combination of 1Scan pre-indexing and 1MAGE auto-indexing.

If a large group of documents are scanned in order such that a document type (the master type) reoccurs consistently and predictably, and if all documents in the group are pre-indexed in 1Scan with at least a document type, then a Master type defined in IM140 (System Parameters Maintenance) will ensure that the auto-indexing phantom will stop on each Master Type, clear all key data, and prompt the operator for index key information which will then persist to all documents following the Master type.
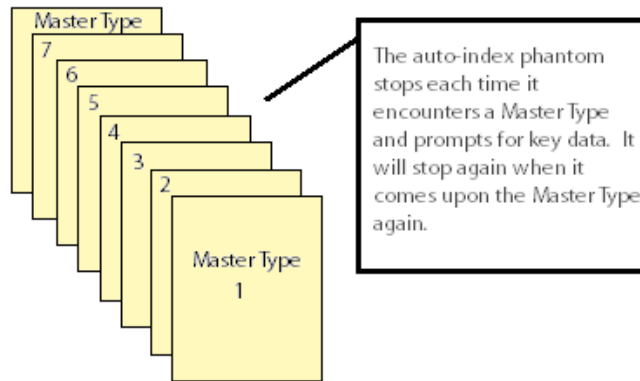
Type an Image Type Code and press Enter.

07) Type Code Persistence	Persistence defaults to N(o). To populate Image Type in IM110 with a new type code for each image, accept the default.
	To populate Image Type in IM110 with a type code that *persists* image after image, type Y(es).
08) PP Key Validation	Process Packet Key Validation defaults to Y(es).Type N(o) to disable validation in order to make the program run faster.

Warning: Do not disable validation unless you are certain that the data you are sending via the Process Packet program is good.

Define and Modify Environment Variables

Be sure to validate the 1MAGE environment variable settings configured here after installation.

Step 1.   Select "*environment variables*" from the maintenance menu.

```
<1. maintenanc> 2. phantoms    3. fax
+---------------------------------+
| A. index key codes              |
| B. image type codes             |
| C. image category codes         |
| D. define scan queues           |
| E. group/user profile maintenance |
| F. system parameters            |
| G. environment variables        |
| H. disk space checking          |
| I. system tag maintenance       |
| J. define cold templates        |
| K. workflow master maintenance  |
| L. organization maintentance    |
| M. define network printers      |
+---------------------------------+
```

The 1MAGE Environment Variables screen, IM145, displays. To navigate the pages, type F (Forward) or B (Back) and press Enter.

```
IM145              1MAGE Environment Variables        10:42:14 02 MAR 2012

Ref  1MAGE Mnemonic   Value To Associate With Mnemonic
---  --------------   ----------------------------------------------------
01)  ARCHIVEDAILY     /tmp/DAILY
02)  ARCHIVEDAYIM     /tmp/DAYIM
03)  FAXHOME          /image/1MAGE/VSIFAX
04)  IMAGEHOME        /image/1MAGE
05)  IMAGESTORE       /image/i/I




















PAGE 1 OF 1
(F)orward, (B)ack, (C)hange, (S)ave, (V)erify, Line number or (EX)it :\\\
```

Step 2. To verify that the values associated with the mnemonics are valid, type V and press Enter. The system displays a warning message for each path that is *not* valid.

If you received a warning that some of the pathnames are not valid, you'll need to change the pathnames. Remember to enter the complete pathname (including drive and directory name(s)) for all variables that are used in the 1MAGE code but are not located in the 1MAGE directory. **Locate all variables on the same host.**

To modify pathnames, do *one* of the following:

- **To correct a pathname** Type the line number that precedes the 1MAGE mnemonic and press Enter. The cursor displays at the value pathname; overwrite the entry and press Enter until the cursor displays at the prompt.

- **To make a global change** Type C and press Enter. The prompt displays the message ENTER STRING TO CHANGE. Enter the piece of the pathname that you want to change and press Enter again. The message, ENTER NEW STRING displays; enter the replacement string and press Enter a third time.

Step 3.   Save modifications and exit the screen.

Do *one* of the following:

- Type S and press Enter.

- Type EX and press Enter. If you have not saved changes, the message, SAVE CHANGES (Y/N)? displays.

  1. Save the change and exit the screen.

Phantom Processes

Define and Maintain 1MAGE phantom processes

```
<2. phantoms  > 3. faxes       4. reports
+----------------------------------+
| A. define phantom processes      |
| B. list running phantoms         |
| C. start all defined phantoms    |
| D. stop all defined phantoms     |
| E. start boot phantoms           |
| F. stop boot phantoms            |
| G. selective phantom start/stop => |
+----------------------------------+
```

Step 1. Select "phantom processes" from the maintenance menu.

The Phantom Process Control Maintenance screen displays.

```
IM155                 Phantom Process Control Maintenance    11:20:53 02 MAR 2012


     Process name        \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\

01) Description
02) Start command
03) Stop command
04) Verify command
05) Sleep time
06) Start at boot-up?
07) Verbose?







Phantom process name or "EX".   Upper case only.
```

Step 2.   Do *one* of the following:

- To define a new Process, type N, space, a unique phantom name, and press Enter. If the process name already exists in the 1MAGE record, the system populates the definition field.

- To maintain a process, type **?** or type the name of a phantom and press Enter.

Step 3.   Define field 01.

At	Do this
01) Description	Type the phantom process description and press Enter. A description may include any combination of 30 alphanumeric characters and spaces.

```
01) Description        New Phantom Process\\\\\\\\\\
```

Step 4.   (optional) Define fields 02, 03, 04, 05, 06, and 07.

At	Do this
02) Start command	Do one of the following: • If you want the system to use the name of the phantom following the command START.PH, press Enter to leave this field blank. • If you create a custom phantom, type its TCL command line syntax as the start command for the customized phantom and press Enter.
03) Stop command	If you want the system to use the name of the phantom following the command STOP.PH, press Enter to leave this field blank.
04) Verify command	Type the command the system uses to verify that the phantom process is running and press Enter.
05) Sleep time	Type the sleep time in seconds and press Enter; e.g., for a two-minute sleep time, enter 120.
06) Start at boot-up?	If you want the phantom process to start at boot-up, type Y(es) and press Enter. If you do *not* want the defined phantom process to start at boot-up, type N(o) and press Enter.
07) Verbose?	If you want the phantom process to print messages as it runs, type Y(es) and press Enter; if you do *not* want the phantom process to print messages, type N(o) and press Enter. The cursor displays at the MODIFICATIONS prompt.
(D)elete, (M)odify, (S)ave, Line Number or (EX)it	To delete the code, type D and press Enter. The message, ARE YOU SURE? (Y/N) displays. To modify the code, type M and press Enter. The cursor returns to the Description field. Press Enter until the cursor displays in the field you want to correct. Overtype the entry and press Enter until the cursor displays at the (D)elete… prompt. To correct a specific line, type the line number and press Enter. The cursor displays at that line; overwrite the entry and press Enter until the cursor displays at the (D)elete… prompt. To save modifications, type S and press Enter. To exit the screen, type EX and press Enter. If you have not saved changes, the message, SAVE CHANGES (Y/N) displays.

Check the Status of Running 1MAGE Phantom Processes.

Step 1. Select "list running phantoms" from the maintenance menu.

```
<2. phantoms  > 3. faxes      4. reports
+--------------------------------+
| A. define phantom processes    |
| B. list running phantoms       |
| C. start all defined phantoms  |
| D. stop all defined phantoms   |
| E. start boot phantoms         |
| F. stop boot phantoms          |
| G. selective phantom start/stop => |
+--------------------------------+
```

The List Running Phantoms screen displays

```
                                 List Running Phantoms

root       3869     1  0  2011 ?        00:00:33 phantom DMS.BARINDEX100
root       3891     1  0  2011 ?        00:00:31 phantom DMS.BARINDEX200
root       3913     1  0  2011 ?        00:01:03 phantom PROCESS.EXTSCAN

Press any key to continue...=
```

The displayed list describes each of the phantom processes currently running showing the login id of the session that started the process and the time and date that it was started.

'Press Enter to return to the "phantoms" menu.

Start All Defined 1MAGE Phantom Processes

Step 1. Select "start all defined phantoms" from the maintenance menu.

```
<2. phantoms  > 3. faxes       4. reports
+----------------------------------+
| A. define phantom processes      |
| B. list running phantoms         |
| C. start all defined phantoms    |
| D. stop all defined phantoms     |
| E. start boot phantoms           |
| F. stop boot phantoms            |
| G. selective phantom start/stop => |
+----------------------------------+
```

The Start All Phantoms screen displays

```
START.ALL.PHANTOMS            Start All Phantom Processes


Enter "START" to start all phantom processes or "QUIT" =█
```

Step 2. Do one of the following:

- Type "START" and press Enter to issue the Start Command for each of the phantom processes defined in 1MAGE

- Type "QUIT" and press Enter if this is not the action that you want taken.

The "phantoms" menu will redisplay.

Stop All defined 1MAGE Phantom Processes

Step 1. Select "stop all defined phantoms" from the maintenance menu.

```
<2. phantoms  > 3. faxes       4. reports
+----------------------------------+
| A. define phantom processes      |
| B. list running phantoms         |
| C. start all defined phantoms    |
| D. stop all defined phantoms     |
| E. start boot phantoms           |
| F. stop boot phantoms            |
| G. selective phantom start/stop =>|
+----------------------------------+
```

The Stop All Phantom Processes screen displays

```
STOP.ALL.PHANTOMS              Stop All Phantom Processes




Enter "STOP" to stop all phantom processes or "QUIT" =
```

Step 2. Do one of the following:

- Type "STOP" and press Enter to issue the Stop Command for each of the phantom processes defined in 1MAGE

- Type "QUIT" and press Enter if this is not the action that you want taken.

The "phantoms" menu will redisplay.

Step 1. Select "start boot e phantoms" from the maintenance menu.

```
<2. phantoms  > 3. faxes        4. reports
+-------------------------------+
| A. define phantom processes   |
| B. list running phantoms      |
| C. start all defined phantoms |
| D. stop all defined phantoms  |
| E. start boot phantoms        |
| F. stop boot phantoms         |
| G. selective phantom start/stop => |
+-------------------------------+
```

The Start Boot Phantom Processes screen displays

```
START.BOOT.PHANTOMS          Start Boot Phantom Processes




Enter "START" to start boot phantom processes or "QUIT" =
```

Step 2. Do one of the following:

- Type "START" and press Enter to issue the Start Command for each of the 1MAGE phantom processes defined where the Start at Boot setting was set to YES

- Type "QUIT" and press Enter if this is not the action that you want taken.

The "phantoms" menu will redisplay.

Step 1. Select "stop boot e phantoms" from the maintenance menu.

```
<2. phantoms  > 3. faxes        4. reports
+--------------------------------+
| A. define phantom processes    |
| B. list running phantoms       |
| C. start all defined phantoms  |
| D. stop all defined phantoms   |
| E. start boot phantoms         |
| F. stop boot phantoms          |
| G. selective phantom start/stop => |
+--------------------------------+
```

The Stop Boot Phantom Processes screen displays

```
STOP.BOOT.PHANTOMS            Stop Boot Phantom Processes



Enter "STOP" to stop boot phantom processes or "QUIT" =
```

Step 2. Do one of the following:

- Type "Stop" and press Enter to issue the Stop Command for each of the 1MAGE phantom processes defined where the Start at Boot setting was set to YES

- Type "QUIT" and press Enter if this is not the action that you want taken.

The "phantoms" menu will redisplay.

Step 1. Select "selective phantom start/stop" from the maintenance menu.

```
<2. phantoms  > 3. faxes        4. reports
+--------------------------------+
| A. define phantom processes    |
| B. list running phantoms       |
| C. start all defined phantoms  |
| D. stop all defined phantoms   |
| E. start boot phantoms         |
| F. stop boot phantoms          |
| G. selective phantom start/stop => |
+--------------------------------+
```

The selective phantom start/stop menu displays.

This menu is recreated each time the 1MAGE Administrator logs in to the system and contains a Start and a Stop entry for each defined 1MAGE phantom process.

```
+----------------------------------------------------------+
| A. start cold indexing and rendition printing (process.packet) |
| B. stop cold indexing and rendition printing (process.packet)  |
| C. start dms saas client 100 barindex (dms.barindex100)        |
| D. stop dms saas client 100 barindex (dms.barindex100)         |
| E. start dms saas client 200 barindex (dms.barindex200)        |
| F. stop dms saas client 200 barindex (dms.barindex200)         |
| G. start process 1scanserv docs (process.extscan)             |
| H. stop process 1scanserv docs (process.extscan)              |
+----------------------------------------------------------+
```

Step 2. Do one of the following:

Select the letter or line that describes the action that you wish to be taken.

Press the Left Arrow key to return to the "phantoms" menu without taking any action

The "phantoms" menu will redisplay.

Faxing procedures

Use the faxes menu to start and stop 1FAX daemons, check 1FAX daemon status,, view the 1FAX server log, and update the 1FAX cover sheets.

VSI-FAX™ is the faxing software that 1MAGE uses as the fax server.   The following procedures assume that VSI-FAX™ has been installed and configured. See the "1Fax Installation Manual" for instructions on installing and configuring VSI-FAX™ as the 1MAGE fax server.

1Fax Administration

To Administer the 1Fax subsystem (if installed)

```
<3. faxes        >

 A. 1fax administration    =>
 B. phone codes
 C. cover sheet maintenance
 D. reports                =>
```

Start, Stop, or Check Status of 1Fax Daemons

Step 1. Select "1fax administration" from the faxes menu.
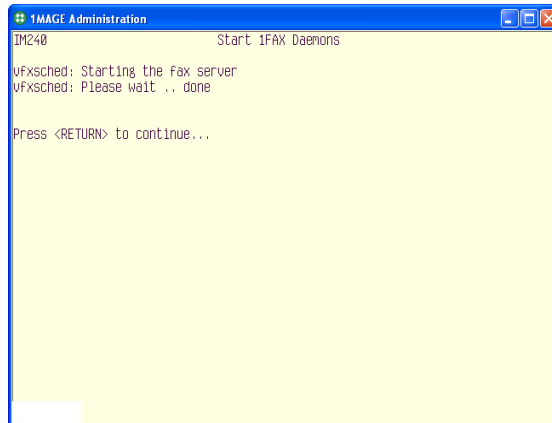
The 1fax administration sub-menu displays

```
<3. faxes        >

 A. 1fax administration    =>
 B. phone
 C. cover   A. start 1fax daemons
 D. report  B. stop 1fax daemons
            C. status of 1fax daemons
```

Step 2. Do one of the following:

Start the 1Fax Daemons

Select line A

```
1MAGE Administration
IM240                    Start 1FAX Daemons

vfxsched: Starting the fax server
vfxsched: Please wait .. done


Press <RETURN> to continue...
```

Press Enter to return to the "faxes" menu

Stop the 1Fax Daemons

Select Line B
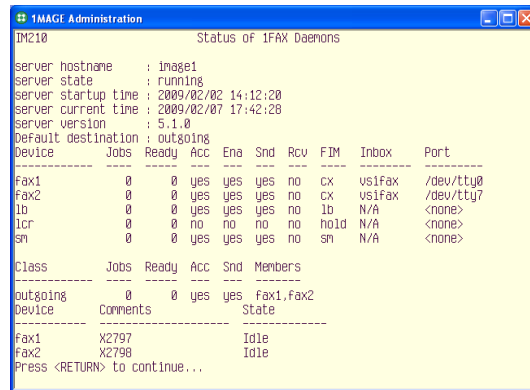
```
# 1MAGE Administration                                              _ □ X
IM250                          Stop 1FAX Daemons

vfxsched: Initiating soft shutdown of the fax server
vfxsched: Please wait . done


Press <RETURN> to continue...
```

Press Enter to return to the "faxes" menu

Display the Status of the 1Fax Daemons

Select Line C

```
# 1MAGE Administration                                              _ □ X
IM210                          Status of 1FAX Daemons

server hostname     : image1
server state        : running
server startup time : 2009/02/02 14:12:20
server current time : 2009/02/07 17:42:28
server version      : 5.1.0
Default destination : outgoing
Device     Jobs  Ready  Acc  Ena  Snd  Rcv  FIM   Inbox     Port
---------  ----  -----  ---  ---  ---  ---  ----  --------  ---------
fax1         0      0   yes  yes  yes  no   cx    vsifax    /dev/tty0
fax2         0      0   yes  yes  yes  no   cx    vsifax    /dev/tty7
lb           0      0   yes  yes  yes  no   lb    N/A       <none>
lcr          0      0   no   no   no   no   hold  N/A       <none>
sm           0      0   yes  yes  yes  no   sm    N/A       <none>

Class      Jobs  Ready  Acc  Snd  Members
---------  ----  -----  ---  ---  -------
outgoing     0      0   yes  yes  fax1,fax2
Device     Comments             State
---------  -------------------  -------------
fax1       X2797                Idle
fax2       X2798                Idle
Press <RETURN> to continue...
```

Press Enter to return to the "faxes" menu

Maintain Fax Phone Database

Select B. phone codes from the faxes submenu.

```
<3. faxes        >

 A. 1fax administration    =>
 B. phone codes
 C. cover sheet maintenance
 D. reports                =>
```
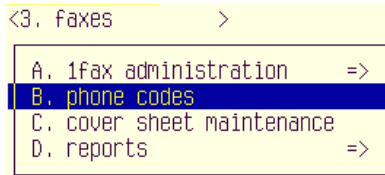
The IM135, the Fax Phone Codes Maintenance screen displays.

```
1MAGE Administration                                    _ □ X
IM135              Fax-Phone Codes Maintenance      08:57:18 02 FEB 2009

    Fax-phone Code  \\\\\\\\\\\\\\\\\\\\

01) Company Name
02) Fax Number
03) Contact












Enter Fax-Phone Code, "?" to search, "N xxx" for new Code or "EX"
```
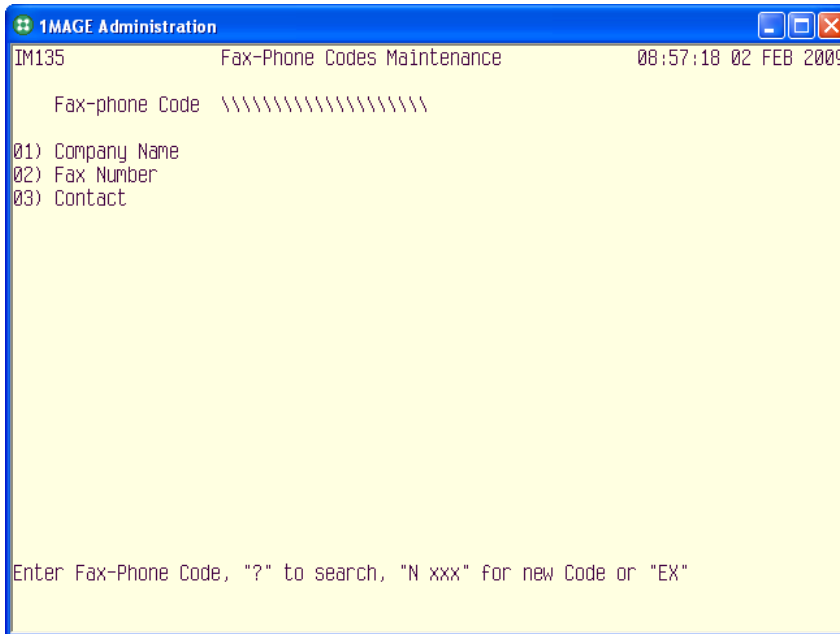
At Fax-phone Code, type N, space, a unique alpha, numeric, or alphanumeric code, and press Enter.

```
Fax-phone Code  N 1MAGE\\\\\\\\\\\\\
```

If the code already exists in the 1MAGE record, an error message will display stating that the code already exists.

Note: To reference a code that already exists in the 1MAGE record, enter the just code without the "N, space", the system populates the code definition fields.

Populate fields 01, 02, and 03.

At	Do this
01) Company Name	Type a company name and press Enter. `01) Company Name    1mage Software, Inc.\\\\\\\\\` A company name may include any combination of 30 alpha, numeric, or alphanumeric characters and spaces.
02) Fax-Number	Type a fax telephone number and press Enter. If the fax number is outside your local calling area, remember to enter an area code. You may use a hyphen or parentheses to separate groups of numbers if you wish. Depending on the requirements of your current phone system, you may need to preface the telephone number with 1 for an outside line, 7 for a local line, or 9 for a long distance line. If you use more than one prefix in your system Enter the prefix for *each* fax number here. If you use only one prefix for all your fax numbers, enter the prefix in IM140, System Parameters Maintenance Fax Prefix field. Use a comma (,) to program pauses into the fax number. For example: `02) Fax Number      9,1(303) 796-0587\\\\\\\\\\\`
03) Contact	Type the name of the individual to whom the Fax is directed and press Enter to display your cursor at the prompt. Whenever possible, use company titles instead of individuals' names. This practice reduces the need for frequent modifications to 1MAGE because of personnel changes. For example, use Mgr. Accounts Payable, instead of John Doe. `03) Contact         Technical Support\\\\\\\\\\\`

At (D)elete, (M)odify, (S)ave, Line Number or (EX)it, save the fax phone code and exit the screen.

- To save, type S and press Enter.

- To exit the Fax-Phone Codes Maintenance screen, type EX and press Enter. If you have not saved changes, the message, SAVE CHANGES (Y/N)? displays.

♦ **To modify a fax phone code**

1. At the prompt, type M and press Enter. The cursor returns to the Company Name field. Press Enter until the cursor displays in the field you want to correct. Overtype the entry and press Enter until the cursor displays at the prompt.

   To correct a specific line

2. Type the line number and press Enter. The cursor displays at that line; overtype the entry and press Enter until the cursor displays at the prompt.

To delete a fax phone code

At the prompt, type D and press Enter. The message, "ARE YOU SURE? (Y/N)" displays. Answer Y(es) to delete the fax

Maintain 1Fax Coversheets

1FAX is installed with a default cover sheet like the example below. Use IM280 to modify this cover sheet with your own company name, address, and phone numbers before sending your first FAX. You may also use IM280 to create additional cover sheets.

The default cover sheet is assigned to the default_id login, but you may assign additional cover sheets to either specific user logins or IP addresses. (See To Associate tags with user logins or IP addresses in the 1MAGE System Administration manual)

Step 1. Select "cover sheet maintenance" from the faxes menu.

```
<3. faxes          >

   A. 1fax administration    =>
   B. phone codes
   C. cover sheet maintenance
   D. reports                =>
```

IM280, the Fax Cover Sheet Maintenance screen displays

```
1MAGE Administration                                      _ □ ✕
IM280              Fax Cover Sheet Maintenance    16:09:17 07 FEB 2009

    Reference        \\\\\\\\\\\\\\\\\\\\\

01) Description
02) Company Name
03) Address
04) Voice Phone
05) FAX Phone












Sheet, "?" to search, "N xxx" for new Reference or "EX".  Upper case only.
```
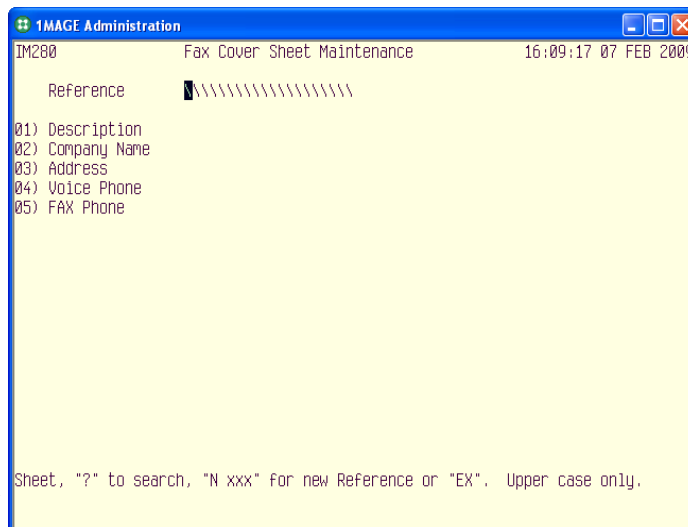
At Reference,

3. **To create a new cover sheet** Type N, space, a unique cover sheet ID, and press Enter. The cursor displays in the Description field. Go to Step 3.

4. **To modify or delete an existing cover sheet** Type a cover sheet ID or a cover sheet description and press Enter. The fields populate and the cursor displays at the prompt. Go to Step 5. (The Default Cover Sheet was created with Reference "1".)

5. **To display the cover sheet cross-reference list** Type **?** and press Enter. 1MAGE displays a numbered list of cover sheets and their descriptions. If there are so many records in the file that they cannot be displayed on one screen, type F to page forward or B to page backward until you locate the code you want. Type the line reference number that precedes your cover sheet and press Enter. The cursor displays at the prompt. Go to Step 5.

6. **To exit** Type EX and press Enter to return to the 1fax administration menu.

2. At 01) Description, type the description to which the code will be cross-referenced and press Enter; for example, Default Cover Sheet.

3. Define fields 02, 03, 04, and 05; 1MAGE uses these fields to populate the cover sheet header.

At	Do this
02) Company Name	Type the name of the company that is to appear in the cover sheet header, and press Enter.
03) Address	Type the address of the company named in field 2, and press Enter.
04) Voice Phone	Type a voice telephone number at the address in field 3 which may be called for fax confirmation, and press Enter.
05) FAX Phone	Type a telephone number to which faxes may be sent, and press Enter to display your cursor at the prompt.

5. At the prompt, do *one* of the following:

7. **To delete the code**   Type D and press Enter. The message ARE YOU SURE? (Y/N) displays. Type Y and press Enter to display the cursor at the prompt.

8. **To modify the code**   Type M and press Enter. The cursor returns to the Description field. Press Enter until the cursor displays in the field you want to correct. Overtype the entry and press Enter until the cursor displays at the prompt.

9. **To save modifications** Type S and press Enter.

10. **To correct a specific line** Type the line number you wish to correct and press Enter. The cursor displays at that line; overwrite the entry and press Enter until the cursor displays at the prompt.

To exit the Fax Cover Sheet Maintenance screen,type EX and press Enter.

Printing procedures

Overview

Printing capabilities for the 1MAGE system are functional only if a relationship has been configured between the Windows operating system and 1MAGE.

Important 1MAGE can only use printers that attach directly to the network with the LPR protocol.

To configure 1MAGE Windows printing, do the following:

On a Windows Server:

> Add the TCP/IP Print Server service.

> Set the TCP/IP Print Server service to Automatic.

Create printer queues.

Define a sview.ini or svstart.ics file in the 1VIEW directory that includes a printer ID number for **each** imaging printer.

Use IM185 to associate the printer you setup in Step 3 with the printer ID you defined in Step 4.

Change the default printer value for your default_id login.

(optional) Associate other printer values with user logins or client hostnames.

Each of these steps are covered in detail in Appendix A. of the 1MAGE Installation Guide for Windows. Please refer to this document for complete instructions on installing and configuring printers for 1MAGE.

Archiving, Auditing and Other Procedures

Archiving Procedures

Backup provides a means of recovery in the event of a system crash. Part of your job as system administrator is to do system backups on a regular basis.

1MAGE recommends that you schedule regular backups of 1MAGE and of your image storage directories. Windows Server provides a simple backup program called "Backup" that easily accomplishes full, differential, or incremental backups. You may need to invest in a third party backup program for greater functionality.

How frequently you schedule backups, and the kind of backups you choose to do, depend on how frequently your data changes and how easy it would be for you to recover lost data. To be safe, you should backup everyday so that you never lose more than one day's worth of work.

- For information on making backups, reference any Windows System Administrator's manual. You can slate backup to run through the Schedule service.

Window's Backup cannot backup open files; therefore backup is typically scheduled after business hours because all users must be logged off the system before backup is begun. In enterprises that run 24 hours a day, seven days a week, backup becomes a special consideration.

✔ Remember to **verify** the readability of all backups; a backup that cannot be read has no value!

✔ Full system backups that include everything on all hard disks should be made on a regular basis.

At the very least, these should be done:

- Before and after installing any new hardware or software.
- Before and after making configuration changes.
- Once every month if no other changes happen on the system.

Warning!

Never overwrite these backups until a more recent one has been created; 1MAGE advises that you maintain a backup library for recovery purposes.

Image backups

The 1MAGE database needs to be backed up frequently since any attempt to re-enter or reconstruct information would be extremely time intensive. 1MAGE backups should be done in two parts:

Part 1 Back up the 1MAGE directory and all its subdirectories **daily** since it holds all the indexing information for the images.

Part 2 Back up the image storage directories. The backup of image storage directories is as critical as backing up the 1MAGE directory. The frequency of when backups should be

performed is dependent upon the volume of new document images that are stored each day.

At least once a month, backup both /1MAGE and the image storage directories and save them in a applicable form for recovery purposes

Auditing Procedures

1MAGE audit feature provides a way to audit API activities in as much detail as needed. All 1MAGE APIs are available to be audited. The audit information is recorded to an API logfile. This information is stored in such a way so as to be legible for an administrator to review or to facilitate the parsing of the API audit information into a customized interface or to a customized report. The audit feature is an extension of the 1MAGE API Logging functionality discussed in Group/User Profile Maintenance

The actual information written to the API logfile is defined in the file identified by the API.LOG.LIST tag. This file typically resides in the 1MAGE.CTRL directory. By default, this is a file named "logfile" that resides in the $IMAGEHOME directory. The log data for each API from API.LOG.LIST is formatted into six columns. Separate log files for each user can be specified by using the API.LOG.PATH tag

API auditing rules are organized by "stanzas" for each API. A stanza is a logical grouping of rules that determine what information is logged for each API. Each "stanza" will map to one or more column in the API logfile. The API logfile will contain both the six columns of default information from the API logging feature plus additional columns as defined by the auditing rules defined in one or more stanzas.

The rules for each stanza are parsed to create actions that are carried out when the specified API is called. Rules are read left to right and saved until a control break is triggered to possibly create an action. A control break is triggered whenever a DICT, FIELD, or end of stanza is encountered.

Audit Rule Definitions

Each stanza consists of audit rules. The following is a list of supported auditing rules that are used to construct stanzas. The audit rules are not case sensitive. For example, "ARG" is the same as "arg." However, references to values, such as filenames and dictionaries, are case sensitive.

ARG# or **ARG=#**	Identifies the API input argument to be logged. For example, the arguments available to PRIM are NETPRT, IMAGEIDS, RETCODE. To track which image IDs are to be logged, use ARG2 or ARG=2. The actual number of arguments that can be used depends upon the API. Each API has a set number of input arguments and an optional RETURNLIST. Since RETURNLIST is not considered an input argument it is available as a separate audit rule. **Important:** The ARG rule must precede all other rules in a stanza.
DICT	Identifies a dictionary item file to be executed and the result put in the log. DICT is associated with the FILE for a rule and must follow a FILE definition in a stanza. When DICT is encountered the TITLE value is cleared. DICT is able to provide customizable data based on user defined paragraphs and I-descriptors.

	Syntax: FILE=<filename>,DICT=<item>
	Note: <filename> and <item> are case sensitive.
FILE	Identifies any 1MAGE file, for example, 1MAGE.MASTER, 1MAGE.DETAIL.
	Syntax: FILE=<filename>
	Note: <filename> is case sensitive.
FIELD# or FIELD=#	Identifies the field of a file to be logged. FIELD is associated with the FILE rule and must follow a FILE definition in the same stanza. When a field is encountered, the TITLE value is cleared.
	Syntax: FILE=<filename>,FIELD10
TITLE	Places text before data in logfile. The TITLE value is cleared when DICT or FIELD rule is found. Because of the parsing order, put the title for DICT and FIELD rules immediately after them.
	Syntax: TITLE=<any_text>
	Note: Everything past the first "=" is part of the title.
WHEN	Identifies when to extract the requested data to print to the logfile. The allowed values are PRE and POST with POST being the default.
	Rules are applied either before or after the associated API is called. Therefore it is important that this rule is set correctly for your specific needs.
	For example, when calling an API that changes key data in a 1MAGE.MASTER record, the audit log will only show the new key data. If WHEN is set to POST, it will not report the original key data.
	If you wish to capture original key data in your audit logs then WHEN must be defined prior to FIELD or DICT.
	Syntax: WHEN=PRE
	Important: The WHEN rule is positional in a stanza. Therefore, the last one defined before DICT, FIELD or the end of the stanza will be used for that associated action.
RETURNLIST	Identifies the API return list.
	Syntax: RETURNLIST
	Note: This argument does not exist in all APIs and is only meaningful in POST mode.

Building Auditing Rules

1MAGE audit logging provides a great deal of flexibility in how you construct stanzas so that the logging output will meet your audit report requirements. This section provides the basic rules you will need to construct your auditing rules.

Audit rules are organized by stanzas. A stanza is a group of rules, all separated by commas, that define actions to be carried out when the specified API is called. Each action will add an additional entry in the audit log file. Each stanza is delimited by a space. Therefore, when constructing stanzas do not put any spaces inside the stanza.

The following is a list of general rules for building API logging requests.

- Space delimits stanzas
- Stanzas consist of rules
- Commas delimit rules
- First equal sign in a rule separates the rule from the value.
- ARG should be the first rule in a stanza.
- FILE (argument) must precede FIELD or DICT.

The sequence in which audit rules are defined effects what audit information is recorded. Some rules are considered "control breaks" and are used to create actions that are carried out to generate log data.

A control break is where data values assigned to a rule will be evaluated and possibly converted to an action. Control breaks occur where FIELD or DICT values are defined, or at the end of a stanza.

For example, the stanza shown below contains three control breaks: at the DICT rule, at the FIELD rule, and at the end of the stanza:

arg1,when=pre,file=1MAGE.MASTER,dict=INDEX.CODE,title=pre_key_codes=,field=11,title=pre_key_data=

This stanza will create two actions. The first action identifies the INDEX.CODE dictionary item and assigns the title "pre_key_codes" to this dictionary item. The second action identifies the actual index data from field 11 from the 1MAGE.MASTER file. Since WHEN was defined immediately after the ARG rule at the start of the stanza, the actions recorded by the DICT and FIELD control breaks will contain the data from the 1MAGE.MASTER record before the API was called.

As stated in the previous section, a stanza is a group of rules, all separated by commas, that defines what actions will be carried out when the specified API is executed. This section describes how to construct a stanza.

In order to construct stanzas the following must be known:

- What API requires auditing?
- What specific audit information is required?

The argument position in the API syntax determines the argument value to be used. For example, the FLIP has the following syntax:

FLIP(IPIPENAME, IMAGEIDS, RETCODE)

If you wish to record additional information for FLIP, specifically, the image ids of all images viewed by 1VIEW, then the stanza definition will start out as:

ARG2

For information about the API argument syntax refer to the 1MAGE Quick Reference Guide or the IMAGE Enabling Manual and look up the syntax for each API to be audited.

If you wish to put a label on this information to make it readable, then another rule needs to be added to this stanza. Commas separate the two rules. For example:

ARG2,TITLE=image_id=

Note: an underscore is used to separate "image" from "id" to give the impression of a space. Do not use a space, as this will signal the start of a new stanza and will produce error messages in your log file.

Since FLNP API does not change any data associated with the image id then it is not necessary to also define WHEN. Had this example been for DLIM (DeLete Image Master), then this stanza would be defined as follows:

ARG1,WHEN=pre,TITLE=image_id=

This provides instructions to retrieve the image id before it is deleted.

Note: the examples shown above reference ARG1, which is the argument for "IMAGELIST" in DLIM. IMAGELIST can be a multi-valued list of image ids. This argument will record one or more image ids. Multi valued lists are delimited by semicolons in the logfile.

To capture additional information about the image ID for DLIM, such as key code information before an image is deleted, a second stanza needs to be constructed. Key Code information is stored in the 1MAGE.MASTER file. The specific key code information is stored in fields 10 and 11. Therefore, the second stanza to request key code data would look similar to the following:

ARG1,WHEN=pre,FILE=1MAGE.MASTER,FIELD10,TITLE=Key_Codes=,
FIELD11,TITLE=Key_Data=

Note: All of the stanza examples shown here represent a single line entry. Some of the examples provided show a single stanza wrapping to multiple lines. This was done to provide the entire contents of the line. Each example is intended to represent a single line entry in the file defined by API.LOG.LIST.

If stanzas are constructed incorrectly, the audit file does not report information for that stanza. Instead, the log file writes an error message that provides a hint about what caused the error. For example, in the following line from the audit file, three additional stanzas are defined for the CRIM API. The first stanza contains an error. The remaining stanzas returned information.

2008/05/20 16:38:29 192.168.22.133_12~DTL~imagelx7 image CRIM 0 <STANZA ERROR: arg=7>
key_codes=CKN,DATE,YEAR,PAYEE 1001,13290,2004,IZI 137

The stanza error shown here is the result of defining an input argument that is not valid for the API. In this case, ARG7 was used for CRIM. CRIM has six arguments (RETURNLIST and RETCODE are not counted as input arguments).

Appendices

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Appendix A: 1MAGE directories and files

The 1MAGE system is set up as an account in the ../1MAGE directory. Contained in the ../1MAGE directory are document databases, source and object code for BASIC programs, and various auxiliary files.

Below is a summary of significant 1MAGE directories and files.

Program directories

Subdirectory	Contents
bin	1MAGE UNIX/Windows executables
license	1MAGE licensing information
1MAGE.BP	BASIC program source code
1MAGE.BP.O	BASIC program object code
1MAGE.INSERT	BASIC include files
1MAGE.MENUS	1MAGE menu programs
1MAGE.SCRMF	1MAGE screen maintenance programs
1MAGE.TBP	1MAGE Professional Services Program Tools
1MAGE.TVOC	1MAGE Professional Services Vocabulary Tools
1MAGE.DOCS	Help information and error code definitions

Component directories

Subdirectory	Contents
1FAX	1FAX programs, scripts, and fonts.
1VIEW	1VIEW programs, scripts, and fonts.
1MAGE.BITMAP	1MAGE bitmap graphic files

Queuing directories

Subdirectory	Contents
unindexed	Holding directory for scanned items waiting to be indexed
1MAGE.RENDQ	Holding queue for unindexed COLD/ERM packets
1MAGE.COLDQ	Holding queue for output from CATCH.COLD

Database files

Subdirectory	Contents
1MAGE.DETAIL	Audit scanning information file
1MAGE.INVERT	Inverted image mapping file

1MAGE.MASTER	Master indexing file
1MAGE.XREF	Inverted index file
1MAGE.NOTES	Redundant information for database regeneration

Index code files

Subdirectory	Contents
1MAGE.CATC	Document image category files
1MAGE.CATX	Category cross reference
1MAGE.COLDT	COLD indexing templates
1MAGE.COLDX	COLD template cross reference
1MAGE.GHOST	1FORM COLD templates
1MAGE.KEYC	Image key code definition
1MAGE.KEYX	Key Code cross reference
1MAGE.KEYCPX	Complex key code cross reference
1MAGE.TYPEC	Image type code definition
1MAGE.TYPEK	Type code inversion for 1Scan
1MAGE.TYPEX	Type code cross reference

Control code files

Subdirectory	Contents
1MAGE.ADHOC	1Circulate Queue Lists
1MAGE.COVER	1FAX cover sheets
1MAGE.COVERX	Cover sheet cross reference
1MAGE.CTRL	1MAGE control settings
IMAGE.DFLT	Default tag settings
1MAGE.DFLTX	Tag settings cross reference
1MAGE.NETPRT	Network printer definitions
1MAGE.NETPRX	Network printer cross reference
1MAGE.ORGS	1Circulate Organizations
1MAGE.ORGX	1Circulate Organizations cross reference
1MAGE.PCTRL	Phantom process controls
1MAGE.PCTRLX	Phantom process cross reference

1MAGE.PHONE	Fax phone number database
1MAGE.PHONEX	Fax phone cross reference
1MAGE.QCTRL	Scanning queue definitions
1MAGE.QCTRLX	Scanning queue cross reference
1MAGE.SCTRL	1ScanServ Control Records
1MAGE.SCTRLX	1ScanServ Control cross reference
1MAGE.TAG	System tag definitions
1MAGE.TAGX	System tag cross reference
1MAGE.USER	User security definitions
1MAGE.USERX	User security cross reference
1MAGE.XCTRL	Window size definitions

Log files

Subdirectory	Contents
1MAGE.ERRLOG	1MAGE error log
1MAGE.FAXLOG	1FAX log
1MAGE.SNPSHT	Snapshot 1mage user license usage
1MAGE.TRLOG	Trace log
log	Service logs

Archival files

Subdirectory	Contents
1MAGE.DAYIM	Temporary daily backup copy of the combined 1MAGE.MASTER and 1MAGE.DETAIL records. This directory is used exclusively by the archiving routines to save temporary copies for transfer to archive media.
1MAGE.JUKTAB	Used for archiving.
1MAGE.VOLUME	Used for archiving.

Temporary work files

Subdirectory	Contents
1MAGE.CACHE	Temporary location for images retrieved from optical or tape
1MAGE.TEMP	Temporary location for pipe and print files
1MAGE.IM225X	Temporary cross reference for Overlay Rules

1MAGE.IM260X	Temporary cross reference for 1FAX servers
1MAGE.295X	Temporary cross reference for Tag validation files
1MAGE.URL	Temporary location for images that will be viewed on a Web browser
1MAGE.ULIST	Scanned Batch listings
1MAGE.1PUB	Holding directory for 1Publist files prior to being copied to CD or DVD
1MAGE.XRNOOP	Holding file for no-op 1MAGE.XREF records.

Workflow files for earlier release

Subdirectory	Contents
1MAGE.WORKD	Workflow queues
1MAGE.WORKDX	Workflow queues cross reference
1MAGE.WORKM	Workflow master database
1MAGE.WORKX	Workflow master cross reference

Workflow 11.1 files

Subdirectory	Contents
1MAGE.WFQUE	Workflow queues
1MAGE.WFQUED	Workflow queues details
1MAGE.WFQUEX	Workflow queues cross reference
1MAGE.WFRTE	Tracks the Workflow Routes
1MAGEWFRTEX	Cross reference for tracking Workflow Routes
1MAGE.WFROLE	Workflow Role Information
1MAGE.WFROLX	Workflow Role Cross Reference
1MAGE.WFRLDC	Future file for workflow data collection
1MAGE.WFHST	Future file for workflow history and archiving
1MAGE.WFHSTD	Future file for workflow history details

ICM 12.1.1 files

1MAGE.OCRCTL	1MAGE control settings for ICM AZURE account info, exclude words
1MAGE.OCRJOB	1MAGE ICM Job info and tracking
1MAGE.OCRJSN	1MAGE ICM mining requests to IMAGE.AZURE
1MAGE.OCRLOG	1MAGE ICM Log info
1MAGE.OCRTXT	1MAGE ICM mining rules for OCR words returned by Azure

Appendix B: 1MAGE daemons, phantoms and services

1MAGE Server utilizes both daemons and UniVerse Phantoms to manage imaging services. The table below lists the major services.

Service	Does This
isd	Image server Daemon - manages client sessions
Swiftserv	Daemon that manages 1View's image filters
ISP	Image Server Phantom (UniVerse Phantom) - manages the API calls to the 1MAGE server
ftqd	1Search Full Text Queuing Daemon – queues items for full text indexing
ftsd	1Search Full Text Server Daemon – receives and processes queued requests from ftqd and processes full text search requests from ftquery
lts	Image transfer service – used by 1Scan to transfer scanned images from the scanning workstation to the 1MAGE server
PROCESS.PACKET	UniVerse Phantom that manages COLD/ERM packets for indexing and rendition printing/faxing/email

.
When using UniVerse phantoms, Windows Services, and UNIX daemons, note the following:

- Phantoms, services and daemons are expected to be running at all times.

- To start a phantom process at boot time, add a script to the /etc/uv.rc file.

- Always stop a phantom by using the 1MAGE Processes submenu. This places a flag in the 1MAGE.PCTRL file for the phantom to stop in an orderly manner. Stopping a phantom by using the UNIX kill command risks damaging files and records.

Appendix C: 1Scan .dat file overview

1Scan software creates two records for each scanned document: an image record (*image.tif*) and a companion data record (*image.dat*). Indexing and audit trail data is marked by an asterisk and is temporarily stored in the .dat file until an image is indexed. After indexing, the data is filed in the 1MAGE.DETAIL and 1MAGE.MASTER files on the Image Server and the data file is deleted.

```
                                              ┌─────────────┐
                                              │ Data Record │
                                              └─────────────┘
  ┌──────────────────┐     ┌──────────────────────────────────┐
  │    image.tif     │     │   image.dat ──────────┘          │
  │                  │     │                                  │
  │                  │     │  *B   <Batch Code>               │
  │                  │     │  *D   <Date>                     │
  │ ┌──────────────┐ │     │  *T   <Time>                     │
  │ │ Image Record │ │     │  *O   <Operator's Initials>  ┌─────────────────┐
  │ └──────────────┘ │     │  *I   <Image type>           │ Audit trail and │
  │                  │     │  *K1 <Index Key 1>           │ indexing data   │
  │                  │     │  *K2 <Index Key 2>           └─────────────────┘
  │                  │     │  *K3 <Index Key 3>               │
  │                  │     │  *BC <Barcode Read>              │
  │                  │     │  *WF <Worflow Queue>             │
  │                  │     │  *A   <Next Page Flag>           │
  │                  │     │  *Z   <End of file flag>         │
  │                  │     │  *DS <Datstring>                 │
  └──────────────────┘     └──────────────────────────────────┘
```
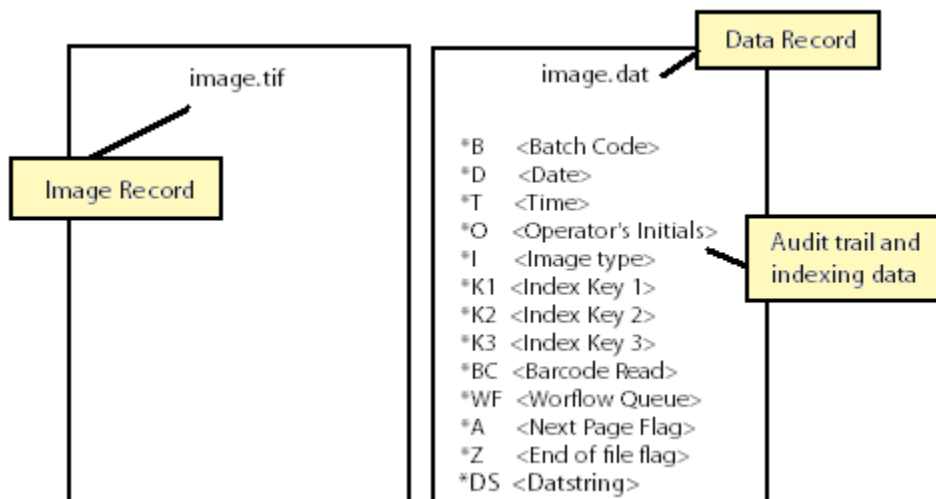
Image ID number

The Image ID number which identifies a .dat file is composed of a Scanner ID number, a Scanning Sequence number, and the extension *.dat*. This ID number also identifies the corresponding *.tif* file.

After an image is indexed and filed, the Image ID number is stored in Field 6 of the 1MAGE.DETAIL file.

1Scan data fields

Date and time

The System Date and Time is automatically added to every .dat file at scan time. *D and *T identify the system date and time and display in the following format:

*D MM/DD/YY
*T hh/mm/ss

After an image is indexed and filed, the scan date and time are stored in Fields 4 and 5 of the 1MAGE.DETAIL file.

Batch name

*B identifies the batch code entered in the Batch Code dialog box. For example:

*B ap011509_1

1Scan prompts for a Batch Code dialog box *only* if the batch code option is enabled in the Tool Scan configuration. Batch data may not exceed 10 alphanumeric characters plus underscore and

may not include spaces. After an image is indexed and filed, the batch data is stored in Field 7 of the 1MAGE.DETAIL file.

Operator name

*O identifies the operator's login name. This is the validated login name used when the operator logged on to 1Scan.   For example:

*O ffeldman

After an image is indexed and filed, the login name is stored in Field 3 of the 1MAGE.DETAIL file.

Comment

*C identifies comments attached to a scanned image. For example:

At scan time the scanner operator can key in an unlimited number of *characters per comment* as well as an unlimited number of c*omments per image*. However, only the *first 50 characters* of the *first three comments are* recorded in the .dat file.

*C Index this document to Vendor 234

After an image is indexed and filed, the comment is stored in Field 8 of the 1MAGE.DETAIL file.

Pre-indexing information

*I

*I identifies the numerical reference (between 01 and 999) of the PC Code attached to an Image Type. PC Codes that are defined in IM105 and display in the Document Type List dialog box in 1Scan.

For example, in the list below, PC Code 66 is attached to Image Type BC or Business Card.
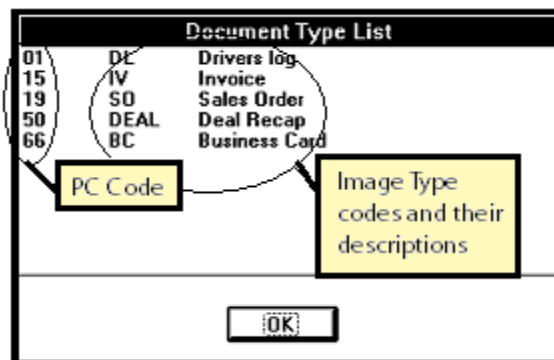
If the PC Code, 66, is entered during pre-indexing, it displays in the *I field in the data file.

*I 66

After an image is indexed and filed, the Code equivalent of the PC Key 66 is stored in Field 1 of the 1MAGE.MASTER file.

*K*n*

*K*n* (where *n* is 1, 2, or 3) identifies one of three index keys attached to a PC Code.

A Pre-Index field *must* be defined in IM105 in order to display in a pre-indexing dialog box in 1Scan. The numbers one, two, and three define the *order* in which the index key fields display in the dialog box.

In the example below, the pre-index fields are ordered:
DID – 1, CONM – 2, and DRNM – 3.

```
09) *** Display ***
Ref Index Key Code                    Pre-Index    Pre-Index
10) DID          Driver ID                1        Field order
11) CONM         Company Name             2
12) DRNM         Drivers name             3
```

They display in the identical order in the pre-indexing dialog box.

```
─    DL    Drivers log
        Type 1-99  [Scan]  [Close]          Index Key Fields
  10               [New]   [ReScan]         display in the order
                                            in which they were
           Driver ID                        assigned a Pre-Index
  123                                        number.

           Company Name
  1mage, Software Inc

           Drivers name
  Dan
```

And in the .dat file, they are referenced as *K1, *K2, and *K3.

*K1 123
*K2 1mage Software, Inc
*K3 Dan

After an image is indexed and filed, the Index code and Index data is stored in Fields 10 and 11 of the 1MAGE.MASTER file.

Barcode

*BC# identifies a barcode *read*. A *read* displays if the barcode option is enabled in 1Scan and if the scanner recognizes the barcode's components and attributes. A successful barcode read captures pre-indexing data that will eventually be formulated into type code and index key data.

1Scan can recognize many different 1D and 2D barcode formats and rotations and will read up to 64 barcodes from a single page.

In order to index scanned documents using data derived from barcodes, a customized barcode indexing program (BARINDEX) must be coded to interpret the meaning of the contents of the barcode and formulate index Type Code and Index Keys to pass to the API CRIM.

Additional page

*A identifies an image that has been added as an additional page to the image immediately preceding it, thus creating a multi-page document.

File complete

*Z indicates that a data file is complete.

Appendix D: 1MAGE screen numbers and names

1MAGE Screen Numbers and Names

IM100	Index Key Codes Maintenance
IM100C	Complex Key Code Maintenance
IM100S	Simplex Key Code Maintenance
IM103	Image Category Codes Maintenance
IM105	Image Type Codes Maintenance
IM110	Index Entry
IM115	Image Inquiry
IM120	COLD Template Maintenance
IM125	Workflow Master Maintenance
IM130	Image Type Security By User
IM130.G	Image Type Security by Group
IM130IS	Indexing Security by User
IM130IS.G	Indexing Security by Group
IM130SS	Scanning Security by User
IM130SS.G	Scanning Security by Group
IM135	Fax-Phone Codes Maintenance
IM140	System Parameters Maintenance
IM145	1MAGE Environment Variables
IM150	Change Indexes
IM155	Phantom Process Control Maintenance
IM160	Image Queue Maintenance
IM163	Image 1Scan Server Maintenance
IM170	Organization Code Maintenance
IM175	Disk Space Checking Parameters
IM180	Archive/Retrieval Control
IM185	Define Network Printers
IM215	Print Document
IM220	Send a Fax
Im225	Overlay Page Rules Maintenance
Im280	Fax Cover Sheet Maintenance
IM290	Defaults Tag Maintenance
IM295	Defaults Value Maintenance

Appendix E: 1MAGE.CTRL Configuration Files

Overview

The files contained in this directory are responsible for providing configuration settings for specific 1MAGE servers. Some of these files will have a system administration panel from within the server's user interface. Other files will require manual editing. Changes to any of these files require that any users currently logged on should log off and then back on before the changes take effect.

Caution: Do not change any of the settings in these files if you are uncertain about their purpose. Contact technical support if you have any questions about any of the settings found here. Failure to do so may cause the 1MAGE server to fail or to behave in an unpredictable manner.

The following table lists the files that are delivered with a standard 1MAGE installation and a brief description of their function.

*** indicates files maintained for backwards compatibility.

1MAGE.CTRL File	Function
1FAX.COUNTER	Maintain count of faxes for logging purposes.
1FAX.OPTIONS	Configuration file for 1FAX product.
1VIEW.EXTENSIONS	Defines 1MAGE Class "I" supported file types
ARCHIVE.CONTROL	Hierarchical Storage Management *** System Switches
ARCHIVE.OPTI.LIST	Lists of Archive Optical Platters ***
ARCHIVE.TAPE.LIST	Lists of Archive of Tapes ***
CHECK.DISK	Sets the parameters for the 1MAGE disk use monitoring utility. This option is configured from IM175 (Disk Space Checking Parameters).
EMAIL.OPTIONS	Defines 1FAX products in regards to e-mail
EMAIL_PROTO	Sets the default parameters for 1MAIL
IMAGE.ENV	Defines the environment variables used by 1MAGE. This option is configured from IM145 (1MAGE Environment Variables).
IMPORT.TAPE.LIST	Lists of imported Archive Tapes ***
INDEX.OPTIONS	Defines indexing option. This option is configured from IM140 (System Parameters Maintenance).

1MAGE.CTRL File	Function
isd.config	Sets the required configuration parameters for isd service. Requires restart of the 1MAGE service for changes to be applied. **Warning:** Users should log off the system prior to restarting 1MAGE service. Otherwise, their session will be disrupted.
LOADED.TAPES	Lists of loaded Archive Tapes ***
magic	1mage provided magic file
MODULO	Defines modulo for image storage.
*MSLOT	Defines Archive Optical Mail Slot ***
OPTI.LAYOUT	Defines Optical Archive Record Layout ***
*OPTI.LIST	List of Optical Slots ***
PATCH.INFO	Contains 1MAGE release and patch notes. This displays from the menu.
PDF.FILE.TOOL	Defines Swiftview Products information
PROCESS.PACKET.OPTIONS	Defines configuration options for PROCESS.PACKET.
RETRIEVE.OPTI.LIST	List of Image Masters to retrieve off Optical ***
RETRIEVE.TAPE.LIST	List of Image Masters to retrieve off Tape ***
SERVER.COUNTER	Maintains socket count for API servers.
SERVER.MODE	Defines tracing for API servers.
SERVER.PORTS	Defines the ports available to the API server. Requires restart of rc.1mage for changes to be applied. **Warning:** Users should log off the system prior to restarting rc.1mage. Otherwise, their session will be disrupted.
SERVER.TIMEOUT	Sets the timeout values for each type of the 1MAGE servers
SETUP.PARAMETERS	Setup parameters for new installs
STORE	Defines parameters for automated rollover of storage directories
*TAPE	Defines Archive Tape Mail Slot ***
*TAPE.LISTS	Lists of Tape Slots ***
UNIX.COMMANDS	Contains various commands called by API server.

1MAGE.CTRL File	Function
URL.GROOM.DAYS	Defines the aging days for files stored in 1MAGE.URL. This setting is used by url.groom. This option is configured from a user interface.

The following 1MAGE.CTRL items are available as needed. This means that these items are available for use, but are not predefined on the system at installation. They require configuration if they are to be used.

1MAGE.CTRL File	Function
API.LOG.LIST	API Logging Parameters
API.LOG.PATH	Path to the API Log File
cold.phrases	Custom file to add additional COLD file types

The following are expanded discussions on some of the files in 1MAGE.CTRL

ARCHIVE.CONTROL

This configuration file sets the Hierarchical Storage Management System Switches (for Hierarchical Storage Management only). By default, these switches are set to "off." Use the following instructions to enable the Hierarchical Storage Management system.

At the command line, edit $IMAGEHOME/1MAGE.CTRL/ARCHIVE.CONTROL to set the switches for the hierarchical management system on which you are installing 1MAGE.

- For optical archiving *only*, set line 1 to 1.
- For tape archiving *only*, set line 6 to 1.
- For both optical and tape archiving, set both lines 1 and 6 to 1.

cold.phrases

1MAGE has logic to recognize cold files. Files submitted for indexing as COLD/ERM documents will be passed through the Operating System command "file". If the phrase, "ascii", "text", "shell", or "script" is found in the output of the "file" command, the file will be considered COLD. This additional check verifies that the file is not a class **O**ther, or class **I**mage file.

By default, the cold.phrase file is not present on a newly installed 1MAGE.   The additional file check will generally be sufficient to accurately determine the file type. Thus, a cold.phrases file is typically not required.

If, for some reason, your class Other or class Image files are being interpreted as COLD, or if your COLD files are being considered class Other or class Image, then a cold.phrases file needs to be created in the $IMAGEHOME/1MAGE.CTRL directory. The content of this file should be

phrases found in the output of the file command when a COLD file is inspected. Each phrase should be on a separate line.

A sample cold.phrases file would appear as follows:

```
phrase1
phrase2
phrase3
```

Important: The contents of the cold.phrases file will override the default checks, not augment them. If you wish to add to the default checks, the default phrases should be included in your cold.phrases file. For example,

```
ascii
text
shell
script
phrase1
phrase2
phrase3
```

isd.config

The purpose of the isd.config file is to set the required configuration parameters for the isd daemon. This includes defining where clients will read and write images that will be viewed or added to the 1MAGE server, and whether or not the isd daemon will require password authentication to start each new server.

The following is a sample of the isd.config file.

```
######
# 1MAGE System
# isd.config
# Configuration settings for isd.  Win32 version.
# 1MAGE REL 8.3.1¡ REV 010630
# Copyright 2001 by 1MAGE Software, Inc.
# All rights reserved.
######

######
# Directories that clients can read/write.
######
%IMAGEHOME%\1MAGE.TEMP
%IMAGEHOME%\1MAGE.URL

######
# Force all users to supply passwords if this is true.
######
user.login.password.required=false

######
# Authenticate users locally unless this is set.  Also used by check_logname.exe.
######
user.login.authentication.domain=
```

The isd.config is a 1MAGE system configuration file. This is where enhanced login requirements and domain server authentication can be defined. The specific configuration elements that control these enhancements in isd.config are "user.login.password.required= "and "user.login.authentication.domain="

These definitions were added to provide the option of increased security for server access.

user.login.password.required

> The main function of the "user.login.password.required" definition is to prevent ic calls to the server to occur without a valid user name and password. When this is set to false, remote ic calls can be executed without a user name and password. When this definition is set to true then a username and password must accompany the ic call. The syntax of such a command is as follows:

> IC.EXE [-l] [-k] [me] [[socket_port] api arg1 arg2 ... argn]

> If user.login.password.required is set to true and ISD_LOGNAME environment variable is not set, then the ic command will fail with an error message stating "Password required for xxx"

In order to use this new security feature without having to enter an unencrypted username and password, the isd_logname environment variable needs to be set on the client. This environment variable would appear similar to the following:

Set ISD_LOGNAME=<user name>:<encrypted password>

user.login.authentication.domain

The main function of the "user.login.authentication.domain" definition is to allow 1MAGE to use a domain name server to validate user logins. If this is not set then 1MAGE users will be validated using the local server. Only users defined on the local server will have access to 1MAGE. If a domain name is defined then 1MAGE users will be validated using the defined domain accounts database. The syntax of this function is as follows:

user.login.authentication.domain=<domain name>

SERVER.PORTS

When isd receives a start server request, it starts a 1MAGE server process (ISP). In order for isd to start ISP, it must define a port for ISP to communicate with the client. The SERVER.PORTS file allows you to configure the range or ports that are available for use. This file contains three lines. By default, the SERVER.PORT file contains the following settings:

```
5000
5000
32767
```

The numeric value in the first line is the last used port. If this is a new installation then this number will be 5000. The numeric value in the second line defines the first port in the allowed range. Though any port may be defined here, ports less than 5000 are typically reserved. The numeric value in the third line defines the last port in the allowed range.

isd will select the next available port to assign to ISP based on the number that is defined in line one. Each time ISP is started, the value in line one will increment by one so that it always reflects the last port assigned. System defined ports that fall within the range defined by lines two and three will not be disrupted. isd will detect that the port is reserved and will move onto the next available port. When the value in line one equals the value in line three the port counter is reset. Line one is reset to the first value in the allowed range.

SERVER.TIMEOUT

The timeout values for each of the 1MAGE servers are configured in the 1MAGE.CTRL/SERVER.TIMEOUT file. The SERVER.TIMEOUT file contains 11 lines each with a numeric value that represents time in seconds. By default, each server is set to timeout in one hour. The following is a sample of the default SERVER.TIMEOUT file.

```
3600
3600
3600
3600
3600
3600
3600
3600
3600
3600
3600
```

Each line of the file controls the timeout value for a specific server. To change the timeout value for a server open a text editor such VI editor and change the desired value.

Use the information in the following table to change the default values for the desired server.

Line No.	Server	Applications
01	ASCII	telnet
02	MOTIF	telnet using Motif/Linux Desktop
03	1Access	1Access
04	WIN32	telnet using WinClient
05	ASP	Browser
06	DTL	1SUITE
07	JSP	Browser
08	CGI	Browser
09	WTS	Telnet using WinClient on Windows Terminal Services or Citrix
10	PPD	ppd
11	V1A	V1A

Server timeout can be set on a user-by-user or group level by attaching a value to the USER.TIMEOUT tag for that user or group.

Appendix F: 1MAGE Tags

The following table is a list of all the tags available for use by the 1MAGE system

1) 1CIRCULATE.URL   URL of V1A Web Server

2) 1FAX.COVER   RECORD ID

3) 1FAX.EMAIL.ADDR   STRING

4) 1FAX.EMAIL.FLAG   STRING (A or S or F)

5) 1MAIL.ENABLE   STRING (Y or N)

6) 1NOTES   STRING (Y or N)

7) 1PUBLISH   STRING (Y or N)

8) 1VIEW.BLOCKSIZE   NUMBER

9) ADMIN.USER   STRING (Y or N)

10) API.LOG.LIST   RECORD ID

11) API.LOG.PATH   STRING

12) CLIENT.ADHOC   STRING (Y or N)

13) CLIENT.COPY   STRING (A or S or N)

14 CLIENT.MINE   STRING (Y or N)

15) CLIENT.DELETE   STRING (Y or N)

16) CLIENT.INDEX   STRING (Y or N)

17) CLIENT.INQUIRY   STRING (Y or N)

18) CLIENT.MODIFY   STRING (Y or N)

19) CLIENT.URL   STRING

20) CLIENT.UNC   STRING

21) DATE.FORMAT   STRING (ON or OFF)

22) DEFAULT.MENU   RECORD ID

23) DEFAULT.PRINTER   RECORD ID

24) EMAIL.SECKEY   Secure Email String

25) FLIP.OPTION1   STRING (Y or N)

26) FXIM.OPTION1   CALL @VARIABLE

27) GIML.OPTION1   CALL @VARIABLE

28) GURL.OPTION1   STRING (Y or N)

29) HASHDIR.OPTION1   CALL @VARIABLE

30) ICMPDFTIF   STRING (Y or N)

31) IM130.OPTION1   CALL @VARIABLE

32) IM130.OPTION2   CALL @VARIABLE

33) INDEX.OPTION1   STRING (Y or N)

33) INDEX.OPTION2   STRING (1VIEW OPTS)

34) MVIM.OPTION1   STRING (Y or N)

35) OVERRIDE.TRANS   STRING (Y or N)

36) PACKET.OPTION1   CALL @VARIABLE

37) PACKET.OPTION2   CALL @VARIABLE

38) PACKET.OPTION3   CALL @VARIABLE

39) PARAM.OPTION1   NUMBER

40) PDF.FILE.TOOL   Swiftview

41) PRIM.GHOST   STRING (Y or N)

42) PRIM.OPTION1   CALL @VARIABLE

42) SAASID   SAAS Client ID

43) SECUREHTTP STRING (https or http)

44) SERVER.IP   IP Address of Server

45) TIFFY.SAVE   STRING (Y or N)

46) UPCASELOGIN

47) USER.STATS   STRING (Y or N)

48) USER.TIMEOUT   NUMBER

49) V1A.INQVALIDATE   STRING (Y or N)

50) VIEW.WATERMARK   Watermark File Name

51) WATERMARK.LOC   STRING (x+/-#,y+/-#)

52) XRGET.OPTION1   STRING (Y or N)

53) ZOEFILELIMIT   Max Files to AutoPDF

54) ZOEPAGELIMIT   Max Pages to AutoPDF

The following tags, CLIENT.URL, DEFAULT.MENU, DEFAULT.PRINTER, SERVER.IP, *must* be assigned default values, and CLIENT.UNC and1FAX.COVER *may* be assigned a values if they are used.

*CLIENT.URL	The associated tag value is URL needed to access images in a browser.
CLIENT.UNC	The associated tag value is the UNC path or network mount path. Used in conjunction with CLIENT.URL to provide an alternate or DMZ server for web served images.
*DEFAULT.MENU	Defaults to a menu named in 1MAGE.MENUS.
	It can be used to customize menu options. The DEFAULT.MENU Record ID **MAIN** displays five menu options when it is associated with a user login, an IP address, or a client hostname. In contrast, the DEFAULT.MENU Record ID **IUSER** displays three menu options.
*DEFAULT.PRINTER	Defaults to a printer named in 1MAGE.NETPRT.
	It can be used to customize printing capabilities for different users. For example, if the file, 1MAGE.NETPRT, has three records: accounting, personnel and administration, then the default value of the tag can be modified by user login, IP address, or client hostname to point to three different printers.
*SERVER.IP	IP of the Image Server
*1FAX.COVER	Defaults to a fax cover sheet named in 1MAGE.COVER.
	It can be used to customize 1FAX cover sheets for different users. For example, if the file, 1MAGE.COVER, has three records: accounting, personnel and administration, then the default value of the tag can be modified by user login, IP address, or client hostname to point to three different printers.

| The following tags allow 1MAGE customization, but are not commonly used tools. |

API.LOG.LIST

Defines the name of the file that lists the APIs that will be monitored when API logging is enabled. If no list is defined and API logging is enabled, 1MAGE will log all of the APIs in a default API logging list.

API.LOG.PATH

Defines the path and log file name were API logging will be written. If no path is defined and API logging is enabled, then log data will be written to a common log file named "logfile" located in the %IMAGEHOME% directory.

1FAX.EMAIL.ADDR

The 1FAX.EMAIL.ADDR tag defines the email address to be notified when a fax has been sent. VSIFax sends the email notice in a default format. This tag requires VSIFAX server and the 1FAX.EMAIL.FLAG tag to be configured.

1FAX.EMAIL.FLAG

This tag enables email notification to a specified e-mail address every time a fax is sent. The tag value can be set to S, F, or A where

        (S)uccess - Email sent on successful fax transmission

        (F)ail   - Email sent on failed fax transmission

        (A)ll   - Email sent on every fax transmission

This tag requires VSIFAX server and the 1FAX.EMAIL.ADDR tag to be configured.

FLIP.OPTION1

Supports converting ghosted COLD to Tiff in the FLIP API. (Y or N). Default is "N"

If the **FLIP.OPTION1** tag is set to "Y" then FLIP will cause the ghosted COLD pages to be converted to Tiff images. This lessens the image file size and improves system performance when inquiring for GHOSTED COLD documents with large GHOST files.

FXIM.OPTION1

Enables use of customer-specific FXIM option programs. This tag specifies a customer (1mage Professional Services) written subroutine that is invoked when faxing COLD documents stored in 1MAGE. The FXIM API call passes the COLD text to the named subroutine. The named subroutine may modify the text and return the modified text to FXIM prior to the fax being sent.

GURL.OPTION1	By default the GURL.API converts multiple page documents to a single multiple page tif file. Because the SwiftView filters that 1MAGE uses does not support color pages in a multiple page tif, the GURL.OPTION1 tag was created to change the RETURNLIST to a multi-valued list of single page images.
	With GURL.OPTION1 set to "Y" the original document pages are retrieved in their original form for an application (such as 1Access) to parse through.
	1Server requires a single file to be associated with an URL, so the default behavior of GURL is required. This is accomplished by either not setting the GURL.OPTION1 tag, or by setting GURL.OPTION1 to "N."
INDEX.OPTION1	Determines how indexing works when duplicate indexes are found.
	If Yes:
	Auto-index adds image to the first duplicate found.
	Manual indexing asks "Add image to first duplicate? (Y/N)" and it defaults the prompt to Yes.
	If No:
	Auto-indexing creates a new document.
	Manual indexing asks "Add image to first duplicate? (Y/N" and it defaults the prompt to No.
INDEX.OPTION2	Defines the buttons that will display in 1VIEW. The default is "EAR". This means that the "EXIT", "ALL" and "ROTATE" buttons appear on 1VIEW.The associated default value is a string containing the 1VIEW button entries that OPIP will use when opening 1VIEW. It was created primarily so that the "P" entry can be passed to OPIP so that 1VIEW will show a "PRINT" button and users *can print unindexed images from Indexing* (IM110).
MVIM.OPTION1	Supports whether type code checking is done in the MVIM API. String (Y or N). Default is "N"
	This tag provides the ability to enforce Image Type security rules when moving images from one type to another. When set to Yes, a user with Image Type security restrictions will not be allowed to move pages to a restricted document type. If No, the user will be able to move images to any available document type.
1NOTES	Allows notes to be "turned off" in both 1Access and Telnet. If no tag is set, notes display by default.

OVERRIDE.TRANS	Controls a user's ability to change translated data.

In the absence of this tag and/or its value, the default value will be Y(es) so indexing will behave like it has in previous releases, and the confirmation message "Do you want to overwrite remaining keys with extracted data?" does **not** display..

If **"YES"**

- Changing a key data field that translates other keys will prompt the user "Do you want to overwrite remaining keys with extracted data?" before replacing key data fields with the translated data. Answering "YES" will replace the other key data fields, even if the translated data is blank.

- The default answer to "Do you want to overwrite remaining keys with extracted data?" will be "YES".

- Users will be prompted through all key data fields and will be allowed to change them as they wish.

If **"NO"**

- When changing a key data field that translates other key data, the program will NOT prompt the user before changing the translated key data fields.

- Entry or modification of translated key data fields will not be allowed. The program will bypass prompting for all translated key data fields (disable or gray out the prompts).

- Displays the error message, "Modification of translated data not permitted" if the user attempts to change a translated key data field.

PRIM.OPTION1

Enables use of customer-specific PRIM option programs. This tag specifies a customer (1mage Professional Services) written subroutine that is invoked when printing COLD documents stored in 1MAGE. The PRIM API call passes the COLD text to the named subroutine. The named subroutine has the option of modifying COLD data prior to it being sent to a printer.

XRGET.OPTION1

Determines how the system is to act when a cross-reference request ("?") finds only one entry. If "yes" or not set, then the one entry will be retrieved. If "no", then the XREF list is displayed with one entry.

The following tags control permissions for 1mage clients.

---

*CLIENT.COPY   Enables the use of 1Access's Page Copy feature. The tag value can be set to A, S or N where:

> (A)ll – All pages from current image id are copied to new image id. When this is set, users do not have the option to select pages from an image id.

> (S)elected - Selected pages from current image id are copied to new image id. When this is set, users have the option to select pages from an image id.

> (N)one - 1Access's Page Copy feature not enabled (Default).

*CLIENT.DELETE   Enables a 1Access/1Suite user with indexing permission to delete pages and images, and to create new image masters.

*CLIENT.INDEX   Enables 1Access/1Suite/V1A to control indexing permissions.

*CLIENT.INQUIRY   Enables/Disables 1Access/1Suite/V1A to control inquiry permissions.

*CLIENT.MODIFY   Enables a 1Access/1Suite user with indexing permission to change indexes.

Seven additional tags, GIML.OPTION1, *HASHDIR.OPTION1, *IM130.OPTION1, *IM130.OPTION2, PACKET.OPTION1, PACKET.OPTION2 and PACKET.OPTION3 are callable subroutines that are compiled and cataloged on the 1MAGE server.

---

*GIML.OPTION1   Calls a custom program for modifying search criteria before doing the search. GGIML calls GDTV looking for the "**GIML.OPTION1**" tag. If the tag has data it be will treated as a subroutine name. The custom program will be called with five arguments as follows:

CALL @CUSTOMSUB(KEYSLIST, TYPELIST, NEWKEYS, NEWTYPES, RETCODE)

KEYSLIST will be the list of key pairs supplied to GGIML.

TYPELIST will be the list of type codes supplied to GGIML.

NEWKEYS will return the modified key pairs to use in the actual search.

NEWTYPES will return the modified types to use in the actual search.

RETCODE will return the status of the subroutine call. "0" (zero) will indicate a successful call, NEWKEYS and NEWTYPES will be used in the search. A non-zero RETCODE will cause GGIML to ignore NEWKEYS and NEWTYPES, using the original keys and types supplied.

*HASHDIR.OPTION1   Calls a custom subroutine for determining where to store images. The indexing process calls GDTV looking for the "HASHDIR.OPTION1" tag. If the tag has data it will be treated as a subroutine name. The custom hashing program will be called with three arguments as follows:

CALL @CUSTOMSUB(IMAGES.ID, RETURNLIST, RETCODE)

IMAGES.ID will be the next available image storage ID number. Note that it will be completely numeric and will not have the "c" prefix or ".Z" suffix.

RETURNLIST will be the data returned from the custom program and will be used as the directory location for storing the image.

RETCODE will be treated as a standard API return code. A value of "0" will assume a successful completion; any other value will be treated as a program error. Note that this custom program is not supplied by 1MAGE and these values may not conform to the standard API return code values and error messages.

*IM130.OPTION1

IM130.OPTION1 is called by IM130 (Image Type Security By User) to bypass the checking of user names against the user database and to check user names in a user-defined manner. It also allows for the user name entry (Reference) to be altered to some user-defined name as defined by the subroutine.

usage: CALL subroutine(LOGNAME, MODLOGNAME, HOOKCODE, HOOKMSG)

Where LOGNAME is what is entered in IM130 as the Reference, MODLOGNAME and HOOKCODE are returned from the subroutine and HOOKMSG is any user-defined message that IM130 will display when HOOKCODE is either 1 or 2. The processing in IM130 calls the subroutine just after Reference is entered by the user and the program behaves differently depending on the following:

HOOKCODE = 0 The supplied Reference passed the validation tests in the subroutine and IM130 proceeds normally.

HOOKCODE = 1 HOOKMSG will display at the bottom of the screen. If MODLOGNAME is non-null, it will be become the Reference in IM130.

HOOKCODE = 2 HOOKMSG will display at the bottom of the screen. The Reference has failed the validation tests in the subroutine and IM130 will prompt for another Reference.

HOOKCODE = ? A message will display telling the user that the subroutine has returned invalid data and IM130 will prompt for another Reference.

The following example shows how all of the possible HOOKCODEs could be generated and how the different return arguments would be set. Keep in mind that the purpose for calling this code is to keep the Reference field from being checked by the user database. Therefore, this program might have to access very complicated databases or data structures and could become quite complex.

```
SUBROUTINE SUB.NAME(LOGNAME, MODLOGNAME, HOOKCODE, HOOKMSG)
    HOOKCODE = 0
    HOOKMSG = ""
    BEGIN CASE
    CASE LOGNAME = "ACCOUNTING"
    HOOKCODE = 0
    CASE LOGNAME = "ACCOUNTS PAYABLE"
```

```
            HOOKCODE = 1
            MODLOGNAME = "ACCOUNTS RECEIVABLE"
            HOOKMSG = "LOGNAME ":LOGNAME:" CHANGED TO ":MODLOGNAME
            CASE LOGNAME = "QUALITY ASSURANCE"
            HOOKCODE = 2
            HOOKMSG = "SORRY, LOGNAME NOT VALID"
            CASE 1
            HOOKCODE = 3
            END CASE
            RETURN
         END
```

*IM130.OPTION2

IM130.OPTION2 represents a callable subroutine that is compiled and cataloged on the 1MAGE server. The subroutine is called by IM130 (Image Type Security By User) whenever a Reference is saved or deleted.

usage: CALL subroutine(LOGNAME, ACTION, HOOKCODE, HOOKMSG)

Where LOGNAME is a new or existing Reference entered in IM130, ACTION is either "A", "C" or "D" and HOOKCODE and HOOKMSG are returned from the subroutine. The ACTION value passed to this subroutine is either "A" or "C" when saving a Reference or "D" when deleting a Reference. It is "A" when a new Reference is first entered and "C" when editing an existing Reference. If HOOKCODE is non-zero, then the Reference will not be saved or deleted and HOOKMSG will display at the bottom of the screen.

This subroutine is intended to work in conjunction with the subroutine defined above as IM130.OPTION1. The purpose of that subroutine was to bypass the user database when validating the Reference in IM130. The purpose of this subroutine is to impose restrictions for certain user References so that they cannot be modified or deleted **AND** to perform some user-defined process when a brand new Reference is first entered.

The following example shows how the different ACTION values could be processed and the resulting HOOKCODE and HOOKMSG. It only describes what the program will do when ACTION = "A" since this would entail a large amount of coding or might necessitate calling some other routine.

```
SUBROUTINE SUB.NAME(LOGNAME, ACTION, HOOKCODE, HOOKMSG)
   HOOKCODE = 0
   HOOKMSG = ""
   BEGIN CASE
   CASE ACTION = "A"
   IF LOGNAME = "ACCOUNTS PAYABLE" OR LOGNAME = "ACCOUNTS
RECEIVABLE" THEN
     * add entry to user database or elsewhere.
   END
   CASE ACTION = "C"
```

```
IF LOGNAME = "QUAILITY ASSURANCE" THEN
HOOKCODE = 1
HOOKMSG = "CANNOT MODIFY ":LOGNAME:" REFERENCE."
END
CASE ACTION = "D"
IF LOGNAME = "ACCOUNTS PAYABLE" THEN
HOOKCODE = 1
HOOKMSG = "CANNOT DELETE ":LOGNAME:" REFERENCE."
END
END CASE
```

*PACKET.OPTION1   Identifies a Pick Basic subroutine for PROCESS.PACKET or a function in a shared library for ppd that is executed for each line of the COLD rendition packet. This allows user-defined modification of the line such as adding, removing, or substituting text.

The C function is prototyped as follows:

5.   void modifyPpdLine(char *line,long maxLength);

The PICK BASIC subroutine is prototyped as follows:

6.   MODIFY.LINE.SUBROUTINE(LINE)

Where line is a pointer to a NULL terminated string ending with \n and maxLength is the size of the memory area allocated by ppd for line. Certain rules must be followed when modifying line.   For more information call 1mage Software technical support.

To configure 1MAGE to use PACKET.OPTION1 enter one of the following as the Default Value for PACKET.OPTION1 in IM295:

   If using C

7.   /full.path.to.library,modifyPpdLine

   If using PICK BASIC:

8.   MODIFY.LINE.SUBROUTINE
9.

*PACKET.OPTION2   Identifies a Pick Basic subroutine for PROCESS.PACKET or a function in a shared library for ppd that is executed for lines of the COLD or rendition packet that contain a customized "Star" entry (*OLD). This allows users to replace identified lines with pre-defined substitutions and insertions of one or more whole lines.

The C function is prototyped as follows:

10. void insertPpdData(char *line,char **newData,int *returnCode);

Where line is a pointer to a NULL terminated string ending with \n, newData is a pointer to a pointer of new data to replace line, and returncode returns status of operation back to ppd. Certain rules must be followed for populating new data.   For more information call 1mage Software technical support.

The PICK BASIC subroutine is prototyped as follows:

11. INSERT.LINE.SUBROUTINE(line, newData)

Where INSERT.LINE.SUBROUTINE is the PICK Basic subroutine, *line* is the argument that identifies the line to be replaced, and *newData* is the argument that identifies the new line that will replace the old line.

To configure 1MAGE to use PACKET.OPTION2 enter one of the following as the Default Value for PACKET.OPTION2 in IM295:

If using C

12. /full.path.to.library,insertPpdLine,line

Note: When using C the required entry for the Default Value may not fit in the space provided in the SCRMF. IF this is the case, then contact 1mage Software technical support.

If using PICK BASIC:

13. MODIFY.LINE.SUBROUTINE,line

*PACKET.OPTION3 Identifies a Pick Basic subroutine for PROCESS.PACKET or a function in a shared library for ppd that allows user-defined print function to print images identified by *I in COLD packets.

The C function is prototyped as follows:

14. VOID printPpdImages(sessionPtr, lastIndexedImId, ghost, lpQueue, imageList, returnCode)

Where:

> sessionPtr is the oigwapi session pointer for API calls.
>
> lastIndexedImId is the last indexed image. This argument maybe left null if there are no indexing instructions in the packet(s).
>
> ghost is the image overlay. This argument may be left null if no image overlays are used.
>
> lpQueue is the print queue
>
> imageList is image list. This may reference a single image or a multi-valued image list.
>
> returnCode is the return code.

The PICK BASIC subroutine is prototyped as follows:

15. CALL @CUSTOM3.SUBR(JOBHANDLE, LAST.INDEXED.IM.ID, TMP.GHOST, LPQUEUE, IMAGELIST, RETCODE)

Where:

> JOBHANDLE is the flexlm job handle for API calls.
>
> LAST.INDEXED.IM.ID is the last indexed image. This argument maybe left null if there are no indexing instructions in the packet(s).
>
> TMP.GHOST is the image overlay. This argument may be left null if no image overlays are used.
>
> LPQUEUE is the print queue
>
> IMAGELIST is image list. This may reference a single image or a multi-valued image list.
>
> RETCODE is the return code.

For more information call 1mage Software technical support.

To configure 1MAGE to use PACKET.OPTION3 enter one of the following as

---

the Default Value for PACKET.OPTION3 in IM295:

If using C

16. /full.path.to.library,printPpdImages

If using PICK BASIC:

17. PRINT.IMAGES.SUBROUTINE

Appendix G: CLIENT.UNC

The CLIENT.UNC value that's entered is the path to the UNC directory. This tag is to be used when images are severed to a client (e.g. V1A, 1ACCESS) from a server located on a DMZ type server. The path format to the UNC directory will depend on the O/S versions being used. (e.g. Windows to Windows, UNIX to UNIX, UNIX to Windows, Windows to UNIX) The direction of this share/export should be from the DMZ server to the imageserver. As there should be a firewall between the DMZ server and the imageserver, a firewall rule for the share/export of the UNC directory will need to be created. For those Groups/Users who are to use the UNC directory, the CLIENT.URL tag value will need to match up with the CLIENT.UNC tag value.

For "*Windows(DMZ) to Window(imageserver)s*" A Windows share will likely have been created for the UNC directory. The value entered in the CLIENT.UNC tag can be the UNC path. (e.g. *//dmzhostname/unc_dir_name*)   Mounting the UNC share as a network drive is not needed.

For "*UNIX(DMZ) to UNIX(imageserver)*" The System Admin may choose either NFS or SAMBA. The export or share will need to be mounted on the imageserver, and the absolute mount path entered as the value in the CLIENT.UNC tag.   (e.g. */mnt/unc_url*)

For "*UNIX(DMZ) to Window(imageserver)*" A SAMBA share will likely have been created for the UNC directory. The value entered in the CLIENT.UNC tag can be the UNC path. (e.g. *//dmzhostname/unc_dir_name*)   Mounting the UNC path as a network drive is not needed. (NOT CURRENTLY TESTED)

For "*Windows(DMZ) to UNIX(imageserver)*" The Windows share of the UNC directory will need to be mounted on the imageserver, and the absolute mount path entered as the value in the CLIENT.UNC tag.   (e.g. */mnt/unc_url*)

Appendix H: 1MAGE.TBP Utilities

AUDIT.CD	Audit Categories, Image Types, Keys, and Users for missing, invalid settings.
BARINDEX.PROTO	Prototype Barindex program
CHECK.PAGES	Program to check Image.Master pages
CLEAN.TRLOG	Program to clean up 1MAGE.TRLOG
COMPARE.PROGS	Program to compare programs
DBATCH	Program to show Batches and allow user to delete
DEMO.MOCR	Demo Program for MOCR API
DEMO.MOCR	Demo Program for MOCR API
EXWORDS	Program to take a list of new words (NEW.EXCLUDE.WORDS) in 1MAGE.CTRL and updated the record "EXCLUDE.WORDS in 1MAGE.OCRCTL.
FORMAT.JSON	Program to display JSON with formatting
INITIAL.SETUP	Program to help in Initial Image Server Setup
KEY.VALUE	Generic Subroutine to extract the value of a specified key
KILLSERVER	Checks and allows user to kill a image session (Server)
MAKE.VOC.KEY	Program to create VOC I-Descriptors that define the value of a specific key in the 1MAGE.MASTER. Uses the subroutine KEY.VALUE
PAGEPATHS	Shows the Page Paths and presence of stored image files for an IMID
SHOW.MOCR	Test program for the MOCR API
TAIL	Traces a server's API activity
TEST.GIME.ALL	Test program on how to use GIME to access OCR Data Mining
TEST.GMOCR	Test program using GMOCR
TEST.MOCR	Test program using MOCR
TYPE.AUDIT	Count Images and Pages by Document Type
UPDATE.TAGS	Update tags to 1MAGE 7.1k schema.
VALXREF	Creates a validation / Xref file

Appendix I: Image Content Management

The 1mage Software Document Management System now includes a new module called "Image Content Management" (ICM). This module consists of the "Auto-Indexing" and "OCR Data Mining" components:

Auto-Indexing processes AZURE supported file types, (pdf, tif, tiff, jpg, jpeg, png, gif), returning all OCR read information on the image(s).1MAGE then indexes the image(s) by the OCR read information automatically.

Data Mining provides a way to search for specific information (data mine) indexed documents for any information that is contained on those documents using search criteria to specify what kind of data being searched for or to simply mine all the data on an image.

Auto-Indexing Component

This is a process to make the task of indexing and archiving images into the 1MAGE.MASTER image archive simple and easy. The program PROCESS.OCRINDEX will process all AZURE supported file types placed into the 1MAGE.OCRQ queue, sending them to Azure, receiving the OCR information back, and then indexing the files using the OCR data. The process creates a 1MAGE document, and makes it accessible thru the SEARCH ALL feature of 1ACCESS, V1A, or through custom coding using 1MAGE APIs for integration with proprietary software.

Data Mining Component

This is a process used by companies to turn raw data into useful information. By using software to look for patterns in large batches of data, businesses can learn more about their customers to develop more effective marketing strategies, increase sales, decrease costs, and identify sensitive data for both internal and external security reasons.

By combining the capabilities of Microsoft Azure and Image Content Management, it is now possible to search for OCR text information from any document stored in your 1mage system and either output that information in the form of a report, or in the form of UniVerse data file, or in the form of a custom developed user program or in the form of an Excel compatible delimited file that can be analyzed by your own custom processes.

ICM Data Mining can be performed from the "Data Mine" tab in V1A, using PROCESS.OCRINDEX to mine in the background, or through the new MOCR API that will mine in "real-time" mode.

Image Content Management Diagram
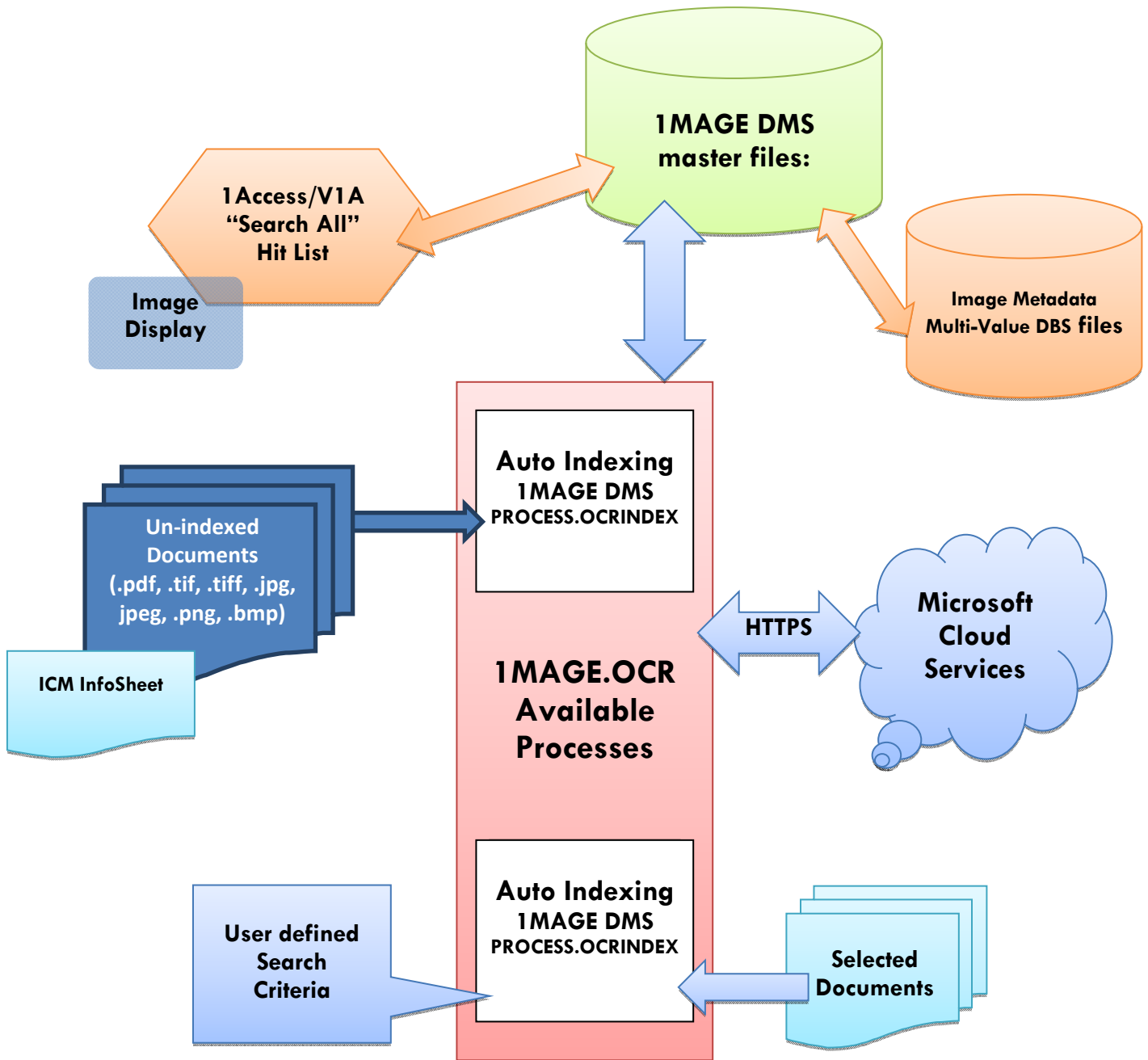
Python Installation

For ICM to successfully communicate with Azure, the image server will need to have Python installed. We recommend installing Python version 3.6 or higher.

Windows Installation

1. Open a web browser to https://www.python.org/downloads/
2. Download Python v3.6+
3. Run the executable file on the image server.
4. During installation, check the box that installs for all users. (see below)
5. Additionally, check the box that adds Python to PATH. (see below)

6. Click "Install Now" and allow the wizard to complete installation.
7. Open a command prompt.
8. Install the requests library with: `python -m pip install requests`
9. Restart UniVerse and ISD

Linux Installation (CENTOS and Red Hat only)

1. Open a bash terminal on the image server
2. Enable the EPEL package library with the command: `sudo yum install epel-release`
   a. Enter the root user password and/or answer yes (y) to install the package
3. Install Python with: `sudo yum install python36`
   a. Answer yes (y) to install the package
4. Install PIP with: `sudo yum install python-pip`
   a. Answer yes (y) to install the package
5. Make sure pip is up to date with: `sudo pip install –upgrade pip`
6. Install the requests library with: `sudo pip install requests`
7. Restart UniVerse and ISD

ICM Azure Setup

In addition to the initial 1mage installation process (or 1mage upgrade process in the case of an upgrade) ICM requires a small amount of additional online setup before the OCR and Data-Mining modules will function correctly. To keep everything as simple for our customers as possible, 1mage will take care of this entire initial setup process themselves.

For technical reference, however, here are the basic steps 1mage will follow to connect ICM to Azure:

1. New Resources, Groups, and Permissions will need to be created for a new customer in 1mage's root Azure account;

2. Azure will provide an endpoint where ICM will need to send images for OCR and Data-Mining processing;

3. 1mage will provide the new account key that will need to be used when sending images to Azure;

   a. The key and endpoint need to be entered on the Image Server in the "1MAGE.OCTRL" file, under the "AZURE" record. From the UV prompt, use the following command to view/edit this record: **ED 1MAGE.OCTRL AZURE**

Here is example output of this record:

```
0001: https://westus.api.cognitive.microsoft.com/vision/v2.0/
0002: 24aef4cdc2916233800abcde910106d2
Bottom at line 2.
```

NOTE The security key above in line 0002: was generated randomly and will not function

Regenerating Keys

If needed, 1mage can regenerate the unique key value at any time. When a new key is created, the new value will need to be updated in this record for 1mage and Azure to continue working together in productive harmony.

Image Content Management Components

Program	Function
MOCR (new API)	1) Does data mining on existing 1MAGE.MASTER in real-time.
	2) Calls PROCESS.DATAMINE to do data mining in the background if executed by V1A.
PROCESS.DATAMINE	Program that performs data mining on existing masters in the background (or in real-time using MOCR) and outputs that information to files.
PROCESS.OCRINDEX	1) {NEW.IMAGE} Processes AZURE allowed images that are placed into images from 1MAGE.OCRQ
	2) {UPDATE.MASTER LISTNAME} Updates existing indexed documents using a select list and adds OCR data for those documents.

* indexes to existing 1MAGE.MASTER records

NOTE – These are separate processes and are executed based on control flags sent to PROCESS.OCRINDEX.

Supplemental Programs That Support MOCR/PROCESS.OCRINDEX

MOCR

IMAGE.AZURE
IMAGE.MINE.OCRTXT

PROCESS.OCRINDEX

IMAGE.OCR.JSON
IMAGE.AZURE
IMAGE.MINE.OCRTXT

IMAGE.AZURE talks to Microsoft Azure for the OCR conversion and logs accounting information of pages processed in 1MAGE.OCRLOG and 1MAGE.OCRJOB.

IMAGE.MINE.OCRTXT applies the mining rules (what are being searched for) to each OCR word returned by Azure looking for matches.

IMAGE.OCR.JSON interfaces the ICM requests to IMAGE.AZURE.

Files That Support MOCR/PROCESS.OCRINDEX

1MAGE.XREF	1MAGE.OCRTXT
1MAGE.OCRCTL	1MAGE.OCRJSN
1MAGE.OCRJOB	1MAGE.RENDO

1MAGE.OCRLOG   1MAGE.OCRQ

Executing PROCESS.OCRINDEX To Auto-Index

PROCESS.OCRINDEX performs multiple functions and can be executed as a Cronjob or Scheduled Task with the following syntax:

PROCESS.OCRINDEX NEW.IMAGE

Processes images from 1MAGE.OCRQ and auto indexing the documents as new record/s using the OCR indexes.

PROCESS.OCRINDEX NEW.MASTER LISTNAME

Processes from documents using a select list name and creates new document records with OCR index infomation. This function is for auto-indexing documents already entered into the 1MAGE System.

PROCESS.OCRINDEX UPDATE.MASTER LISTNAME

Processes from documents using a select list name and adds OCR index inforamtion into existing documents. This function is for updating documents already entered into the 1MAGE System

PROCESS.DATAMINE

Processes documents using categories, image.types and IM.IDS. This process is for "data mining" of 1MAGE indexed documents. It can be executed from V1A as a background process to provide output data in a file and format of your choice, or from the foreground using MOCR.

Executing OCR Data Mining

There are two ways data can be mined from the Image Content Management module.

1) By selecting the "Data Mine" tab of V1A.

2) By executing the MOCR API from within a custom program

In each instance the process operates identically. The MOCR API is called to mine the data based upon what categories are chosen, what imagetypes are chosen and what 1MAGE.MASTER ID's are chosen. If that information is not supplied then then no 1MAGE.MASTER records will be mined.

Mining will be done based upon the contents of the contents of MINE.RULES. These rules specify what data is to collected and where should that data be outputted.
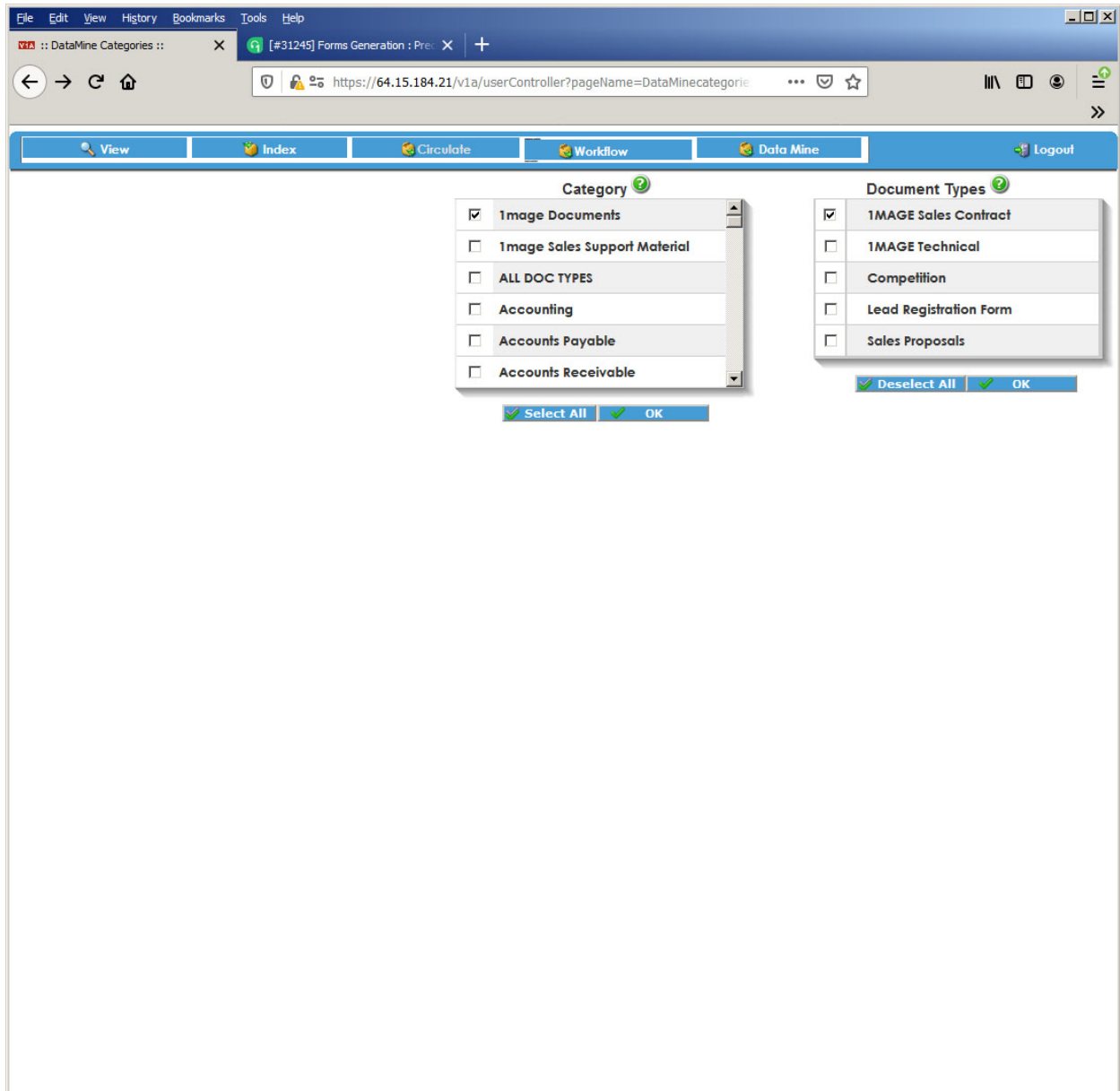
Executing MOCR API

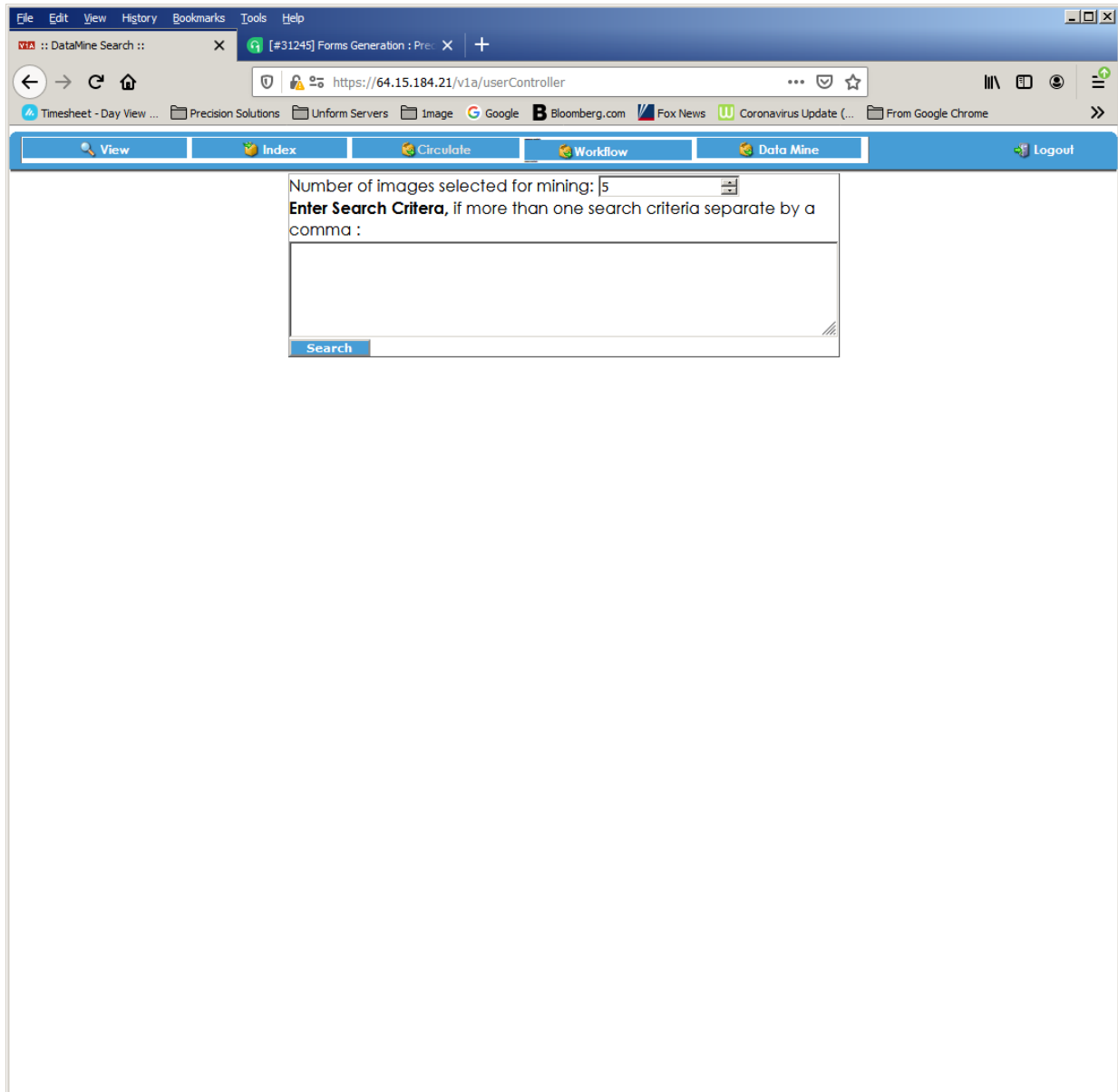CALL MOCR(CATEGORIES, IMAGETYPES, IM.IDS, ACTION, MINE.RULES, RETURNLIST, RETCODE)

MOCR Parameters

Parameter	Value	Description	Req?
CATEGORIES		1MAGE.CATC codes	Y
IMAGETYPES		1MAGE.TYPEC codes	Y
IM.IDS		Actual 1MAGE.MASTER record IDs or "ALL" for all records (will take much longer to run)	Y
ACTION		Code that tells MOCR how to return the data	Y
	"F"	…to the 1MAGE.OCRTXT file	
	"R"	…to the RETURNLIST variable	
	"S"	…to a pre-determined Subroutine	
	"T"	…to a pre-determined tab-delimited file in &HOLD&	
	"U"	…to a pre-determined Universe file	
	"V"	…to a file chosen by the User	
MINE.RULES		Determines the name of the output and what data is searched for. Multiple entries should be separated by the pipe character "|" @U?"MYMINEFILE" • `@T?"MYTABFILE"?|2N/2N/2N` @S?"MYSUBROUTINE"|5000.00 – 10000.00	Y
RETURNLIST		Empty variable to store returned data for ACTION="R"	Y
RETCODE		Empty variable to store return code	Y

Executing Data Mining in V1A

Number of images selected for mining: 5

Enter Search Critera, if more than one search criteria separate by a comma :
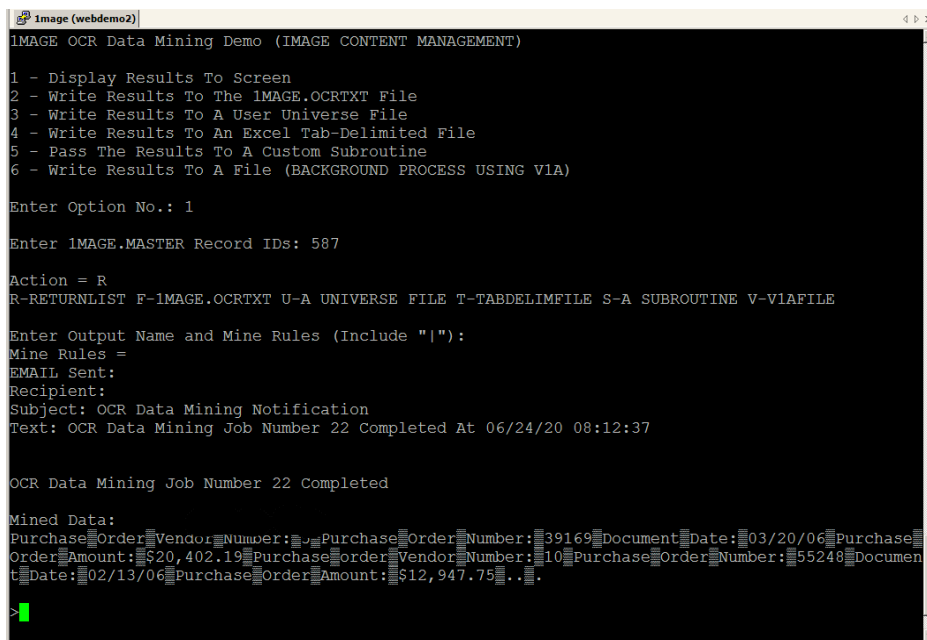
Search
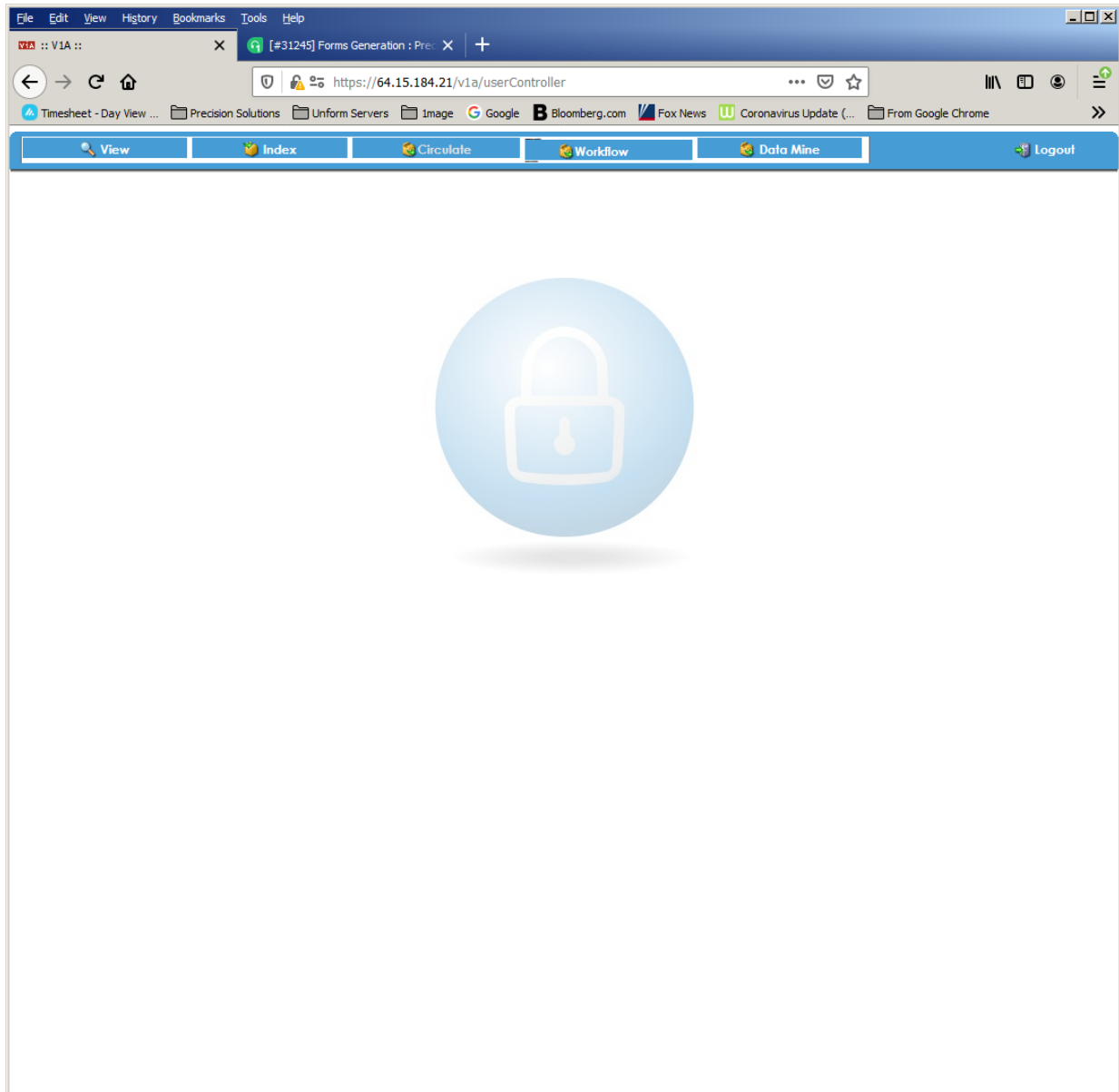
Executing DEMO.MOCR

DEMO.MOCR is a demonstration program to assist in becoming familiar with the IMAGE CONTENT MANAGEMENT module. It performs all the functions the actual data mining components perform in a simple and easy to understand display. Type DEMO.MOCR at TCL to execute.

Once the specified source for OCR data mining is established, then the specific information being mined for is entered such as string values, numeric values, patterns, ranges, etc. A few example applications could be to find social security numbers, credit card numbers, or dates.

```
1mage (webdemo2)

1MAGE OCR Data Mining Demo (IMAGE CONTENT MANAGEMENT)

1 - Display Results To Screen
2 - Write Results To The 1MAGE.OCRTXT File
3 - Write Results To A User Universe File
4 - Write Results To An Excel Tab-Delimited File
5 - Pass The Results To A Custom Subroutine
6 - Write Results To A File (BACKGROUND PROCESS USING V1A)

Enter Option No.: 1

Enter 1MAGE.MASTER Record IDs: 587

Action = R
R-RETURNLIST F-1MAGE.OCRTXT U-A UNIVERSE FILE T-TABDELIMFILE S-A SUBROUTINE V-V1AFILE

Enter Output Name and Mine Rules (Include "|"):
Mine Rules =
EMAIL Sent:
Recipient:
Subject: OCR Data Mining Notification
Text: OCR Data Mining Job Number 22 Completed At 06/24/20 08:12:37


OCR Data Mining Job Number 22 Completed

Mined Data:
Purchase Order Vendor Number: , Purchase Order Number: 39169 Document Date: 03/20/06 Purchase
Order Amount: $20,402.19 Purchase Order Vendor Number: 10 Purchase Order Number: 55248 Documen
t Date: 02/13/06 Purchase Order Amount: $12,947.75 .. .

>
```

```
1mage (webdemo2)

1MAGE OCR Data Mining Demo (IMAGE CONTENT MANAGEMENT)

1 - Display Results To Screen
2 - Write Results To The 1MAGE.OCRTXT File
3 - Write Results To A User Universe File
4 - Write Results To An Excel Tab-Delimited File
5 - Pass The Results To A Custom Subroutine
6 - Write Results To A File (BACKGROUND PROCESS USING V1A)

Enter Option No.: 1

Enter 1MAGE.MASTER Record IDs: 587

Action = R
R-RETURNLIST F-1MAGE.OCRTXT U-A UNIVERSE FILE T-TABDELIMFILE S-A SUBROUTINE V-V1AFILE

Enter Output Name and Mine Rules (Include "|"): 2N/2N/2N
Mine Rules = 2N/2N/2N
EMAIL Sent:
Recipient:
Subject: OCR Data Mining Notification
Text: OCR Data Mining Job Number 23 Completed At 06/24/20 08:15:42


OCR Data Mining Job Number 23 Completed

Mined Data:
03/20/06 02/13/06

>
```

```
1mage (webdemo2)

1MAGE OCR Data Mining Demo (IMAGE CONTENT MANAGEMENT)

1 - Display Results To Screen
2 - Write Results To The 1MAGE.OCRTXT File
3 - Write Results To A User Universe File
4 - Write Results To An Excel Tab-Delimited File
5 - Pass The Results To A Custom Subroutine
6 - Write Results To A File (BACKGROUND PROCESS USING V1A)

Enter Option No.: 3

Enter 1MAGE.MASTER Record IDs: 587

Action = U
R-RETURNLIST F-1MAGE.OCRTXT U-A UNIVERSE FILE T-TABDELIMFILE S-A SUBROUTINE V-V1AFILE

Enter Output Name and Mine Rules (Include "|"): @U"MYFILE"|2N/2N/2N
Mine Rules = @U"MYFILE"|2N/2N/2N
EMAIL Sent:
Recipient:
Subject: OCR Data Mining Notification
Text: OCR Data Mining Job Number 24 Completed At 06/24/20 08:17:18


OCR Data Mining Job Number 24 Completed
>
```
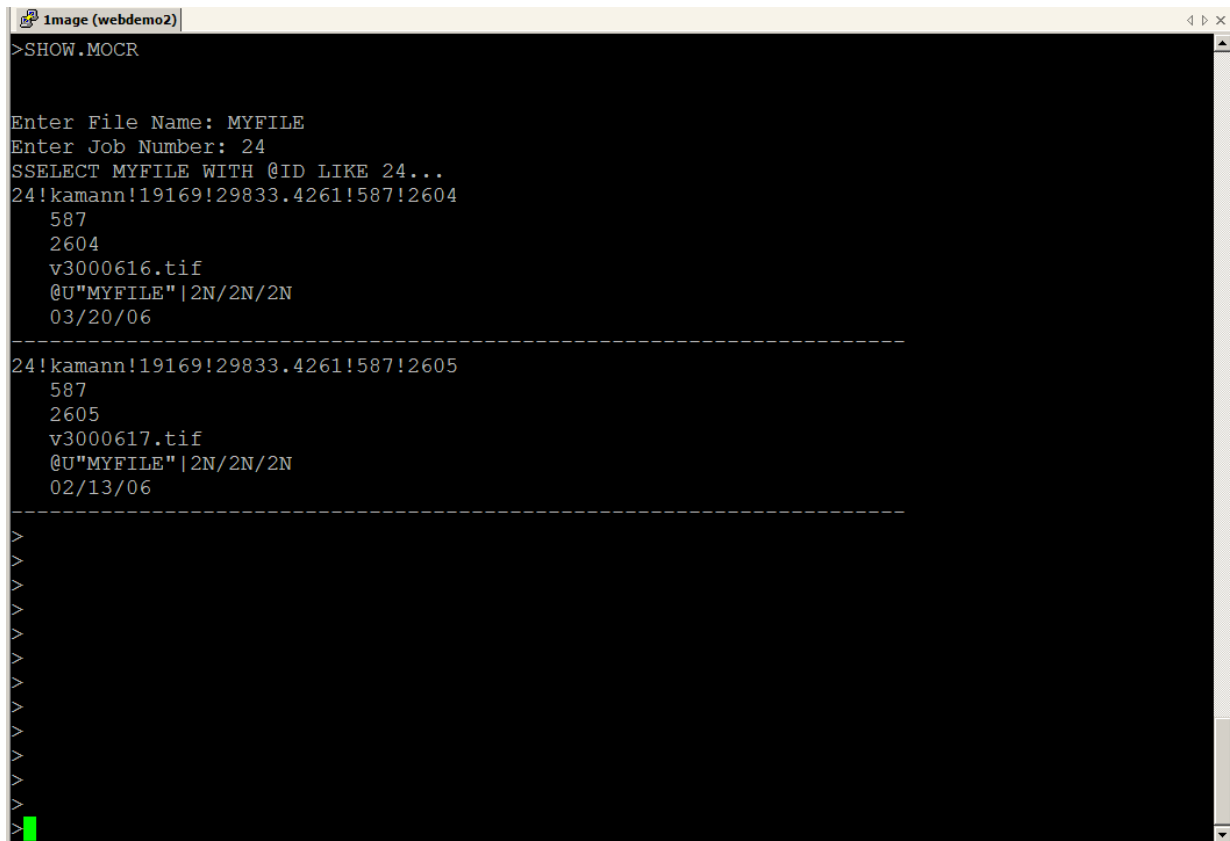
Executing SHOW.MOCR

SHOW.MOCR is a demonstration program that displays OCR Mining data that has been written to a file.

Simply type SHOW.MOCR at TCL, enter the name of the file and the job number assigned to that OCR mining process
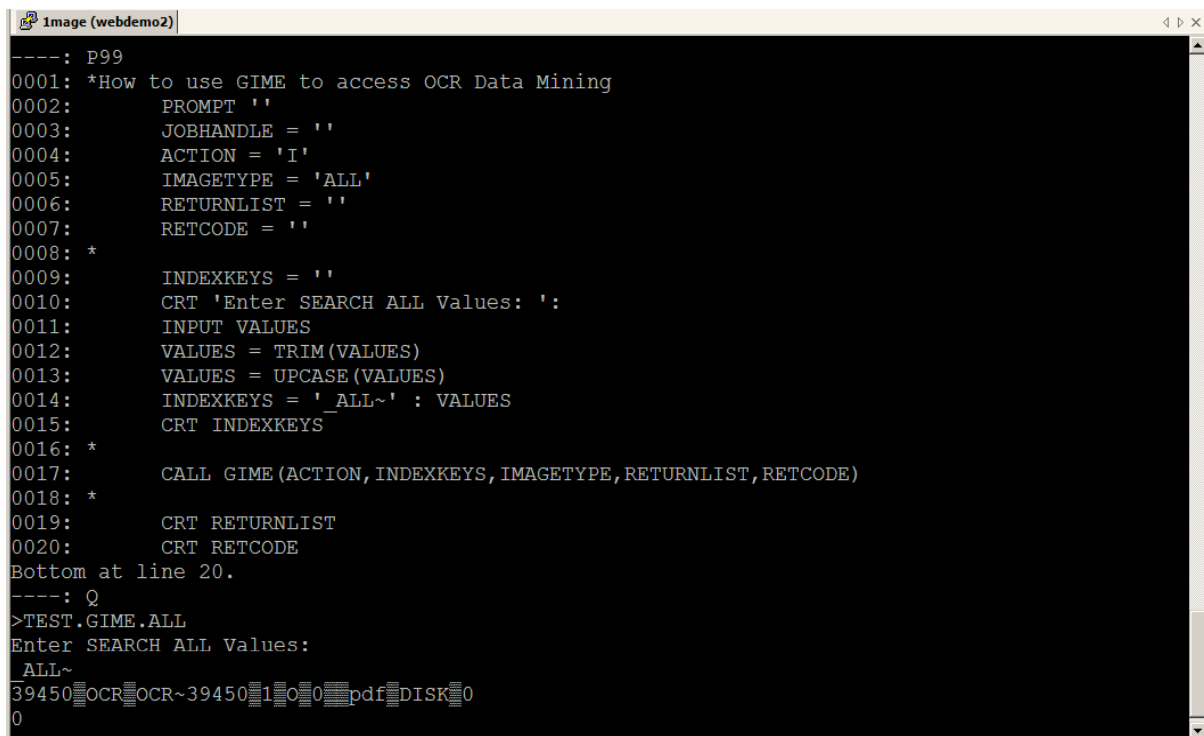
```
1mage (webdemo2)                                                    ◁ ▷ ×
>SHOW.MOCR


Enter File Name: MYFILE
Enter Job Number: 24
SSELECT MYFILE WITH @ID LIKE 24...
24!kamann!19169!29833.4261!587!2604
    587
    2604
    v3000616.tif
    @U"MYFILE"|2N/2N/2N
    03/20/06
-------------------------------------------------------------------
24!kamann!19169!29833.4261!587!2605
    587
    2605
    v3000617.tif
    @U"MYFILE"|2N/2N/2N
    02/13/06
-------------------------------------------------------------------
>
>
>
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>
>
>
>
```

Executing TEST.GIME.ALL

This program demonstrates how to access images archived in the 1MAGE.MASTER for images indexed both by the traditional "index keycode/keydata" pairs OR by the OCR auto-indexed process. It is a simple matter of passing an IMAGETYPE = "ALL" and an INDEXKEYS of "_ALL~ " : VALUES to be searched for. VALUES can be multiple words separated by a space.

GIME returns the traditional 1MAGE.MASTER record if there is a match. Simply type TEST.GIME.ALL at TCL to run the program.

```
1mage (webdemo2)                                                    ◁ ▷ ×
----: P99
0001: *How to use GIME to access OCR Data Mining
0002:        PROMPT ''
0003:        JOBHANDLE = ''
0004:        ACTION = 'I'
0005:        IMAGETYPE = 'ALL'
0006:        RETURNLIST = ''
0007:        RETCODE = ''
0008: *
0009:        INDEXKEYS = ''
0010:        CRT 'Enter SEARCH ALL Values: ':
0011:        INPUT VALUES
0012:        VALUES = TRIM(VALUES)
0013:        VALUES = UPCASE(VALUES)
0014:        INDEXKEYS = '_ALL~' : VALUES
0015:        CRT INDEXKEYS
0016: *
0017:        CALL GIME(ACTION,INDEXKEYS,IMAGETYPE,RETURNLIST,RETCODE)
0018: *
0019:        CRT RETURNLIST
0020:        CRT RETCODE
Bottom at line 20.
----: Q
>TEST.GIME.ALL
Enter SEARCH ALL Values:
 ALL~
39450▓OCR▓OCR~39450▓1▓0▓0▓pdf▓DISK▓0
0
```

ICM InfoSheets

ICM comes with a convenient method to assign metadata to your scanned batches: the InfoSheet. InfoSheets allow the user to automatically set Document Types, pass in key values, and even index batches with custom searchable words the user can choose.

Below is an image of the included InfoSheet template. The template is protected against changes except for the yellow fillable sections, each of which is explained below.

NOTE 1: the brackets surrounding these sections do not print and can be ignored
NOTE 2: all data entered into the InfoSheet should be double-checked for spelling/accuracy

To use the InfoSheet feature properly, follow these steps:

1. Open up the InfoSheet.dotx template
2. Edit or remove the fillable yellow sections as needed
3. Print out the InfoSheet (saving is optional)
4. Place the printed InfoSheet at the back of the stack of pages to be sent through the scanner
5. Scan the documents in to be indexed by the 1mage system

> *::The system now scans and processes the entire batch::*

6. After the system finishes, use the various search methods available in V1A, 1ACCESS, or API integration to retrieve the now indexed and archived documents.

Exclude Words

OCR technology might be powerful, but many frequently used words would make low-value index keys due to their tendency to appear in every document, if not every page or sentence.

Consider this manual. If processed by OCR, the search key, "data," would return nearly every single page in the search results list. As a result, we might seek to exclude it (and many other words) from the OCR indexing process. Fortunately, ICM comes equipped with the means to configure the OCR-indexing process to filter out a customizable list of "exclude words."

ICM Exclude Words List

All exclude words are contained in the 1MAGE.OCRCTL UniVerse file under the "EXCLUDE.WORDS" record. As shipped, ICM contains just under 800 exclude words. To see the full list or edit it directly:

1. Pull up a UniVerse Prompt in the 1MAGE account (default)
2. Enter **ED 1MAGE.OCRCTL EXCLUDE.WORDS**

Editing this file by adding, removing, or altering lines is one way to tailor the system to any customer's needs. But ICM also ships with a handy utility, EXWORDS, that allows customers to batch add many words to this list from a file.

The EXWORDS Utility

1. Pull up a UniVerse Prompt in the 1MAGE account (default)
2. Enter **RUN 1MAGE.TBP EXWORDS**

The Main Menu should now appear, presenting 3 options: Add Words, Remove Words, and Quit.

Add Words

Adding words using the EXWORDS utility will batch add many words from a pre-existing list of words.

1. Prepare a text file of new exclude words to be added to ICM. This text file should feature one exclude word per line, and should be named NEW.EXCLUDE.WORDS
2. Place the file on the image server in the /1MAGE/1MAGE.CTRL/ directory
3. Run the EXWORDS Utility
4. Select the "ADD WORDS TO LIST" option
5. EXWORDS will run through each line of the NEW.EXCLUDE.WORDS file, adding each line to the exclude words list if they aren't already present

Remove Words

Removing words through the EXWORDS utility is as simple as entering a word, hitting enter, and repeating. If the user enters a word to remove that is not in the list, the program will simply inform the user that it doesn't exist in the system and move on.