

Serial Number: _____

of Users: _____

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User Manual

halFILE for Windows™ Viewer

Version 1.1
January 3, 1996

The logo for hal Systems Corporation, featuring the lowercase letters 'hal' in a bold, sans-serif font. The letter 'a' is stylized with a circular cutout in the center.

Systems Corporation

Doc # hfw0006

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HOW TO USE THIS MANUAL

The halFILE for Windows™ Viewer User's Guide provides a detailed description of the features and operation of halFILE for Windows™ Viewer and the halFILE for Windows Administrator™.

Throughout the manual, you will find highlighted sections providing help tips or definitions of terms. These sections are in italics with borders at the top and bottom.

The manual uses Windows terms to describe items or controls that appear on your computer screen. These include:

Window - a panel or enclosed area on the screen containing an application or part of an application. This may also be referred to as a **Form**.

Panel - an area of a Window or Form that is enclosed in a box.

Active Window - the window panel which currently has focus. The window heading will be highlighted and the cursor or mouse position will normally be somewhere inside the window.

Icon - a small picture representing a function that will be performed when the left mouse button is clicked with the mouse pointer over the icon.

Grid - a set of rows and columns similar to a spreadsheet that contains data.

Button - a rectangular box containing a word or words that describe the function that is performed when the box is clicked.

Text Box - a rectangular box into which data can be entered.

List Box - a rectangular box containing a list of entries. An entry can normally be selected by double clicking the item or clicking the item once to highlight it, then clicking another button on the panel such as an OK button.

Drop-down List Box - a list box that appears as a single box until, when the down arrow next to the box is clicked, it 'drops down' to a multi-line list box.

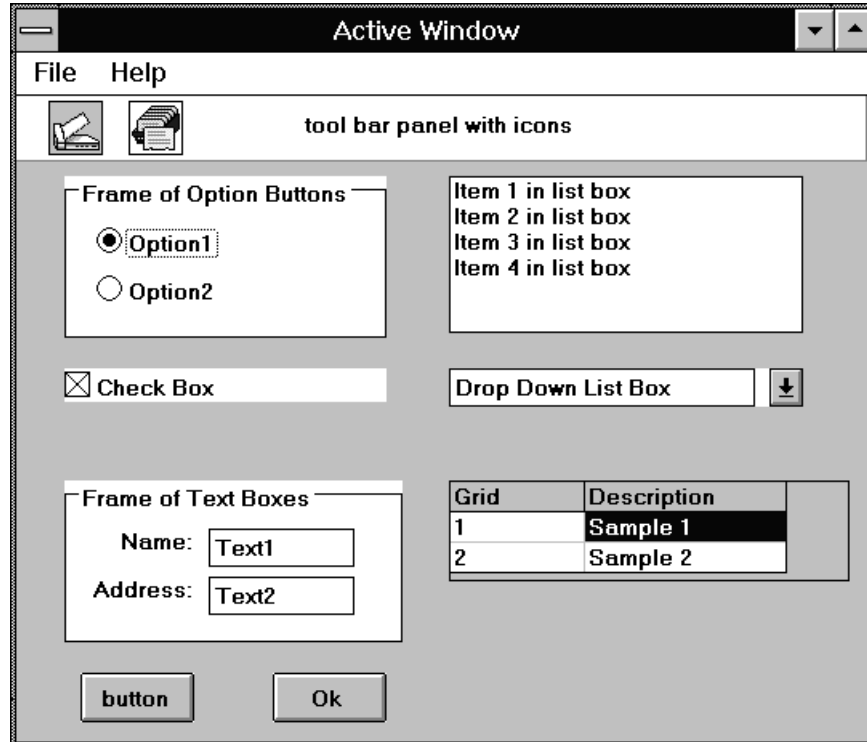
Check Box - a box that, when clicked, will be toggled to contain either an X (checked) or a blank (not checked).

Tool Bar - a panel near the top of the Window (typically just below the menu) containing icons or tools for the application.

Menu - selections at the top of the screen used to perform specific functions. A right arrow will appear when further menu selections are available beneath the "top" menu. Typically, the first menu selection reads 'File'.

Option Buttons - a series of choices, usually contained within a frame, where a dot is placed in a circle next to the option description to indicate that an option is selected.

The following screen shows some examples of how these controls appear.



How the Manual is Organized

This manual is divided into ten chapters and four appendices. It includes a table of contents and an index.

Chapter 1, How to Use This Manual is the chapter you are now reading.

Chapter 2, Overview, provides an overview of the Viewer and the Administrator and how they are used..

Chapter 3, System Setup, describes how to install the Viewer and the Administrator, defines the hardware and software components and prescribes the system requirements.

Chapter 4, Administration, describes how to set up applications and database using the Administrator so the Viewer can be used.

Chapter 5, Searching for Documents, provides an explanation of searching for documents and displaying the database information and related images.

Chapter 6, Tools, describes special tools and maintenance features Viewer and the Administrator.

Chapter 7, Security, discusses the security features in halFILE for Windows™ Viewer.

Appendix I, Building a Sample Application, walks you through the steps of building and using a sample application.

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OVERVIEW

Document Imaging with halFILE for Windows™

halFILE for Windows™ Viewer is a product which provides electronic document viewing and database management capabilities. Using the popular Microsoft Windows™ interface, paper documents which have been scanned into a digital image format and tied to a halFILE for Windows™ compatible database, can be searched for, retrieved, viewed and printed.

Documents can be captured and indexed using halFILE for Windows™. This Viewer can then be used to search, retrieve, view and print documents. This product is meant to augment halFILE for Windows™ Document Storage and Retrieval System by providing a Viewer for situations such as remote offices or service bureaus that do not need scanning, indexing and archiving capabilities.

The halFILE for Windows™ Administrator is used to provide a method for setting up an environment where the Viewer can be used. This includes defining the structure of the image database, the location of cartridges used to store images and more. When the Viewer is installed, the halFILE Administrator is also installed.

A typical application for the Viewer would be a home and remote office environment where, at the home office, the full halFILE for Windows™ product is used to scan documents. These documents are then indexed and placed on CD-ROM cartridges. The database and the CD-ROMs can be shipped to the remote office and the Viewer would be used to search the database and display the images. The Administrator would be used to tell the system, at the remote office, parameters about the database and the location of the CD-ROM drives.

halFILE for Windows™ Viewer Features

- includes image processing functions such as page rotation, page zoom and pan, TIFF file viewing and more.
- supports the popular Microsoft Access™ database.
- Includes a variety of database field formats. (i.e. dates, multi-entry, table lookups, etc.)
- Keeps track of images as they are filed to permanent storage.
- Provides strong database reporting capabilities.
- Includes security features that restrict access to certain functions as well as to certain databases.

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SYSTEM SETUP

This section specifies the system configuration and operating requirements for halFILE for Windows™ Viewer. It also discusses the procedure for installing the software and preparing the system to be used. A quick overview of how to set up halFILE for Windows™ Viewer is as follows:

- Prepare hardware and software components for the installation
- Install KOFAX ImageControls Peripheral Diskettes
- Install KOFAX KF-940 Print Engine if image printing is required
- Install Crystal Reports if database report design is required
- Install halFILE for Windows™ Viewer diskettes
- Define an application
- Design a database
- Define electronic in-baskets
- Define drives used for permanent image storage
- Define cartridge names containing document images

System Configuration

halFILE for Windows™ Viewer requires the following components.

- Microsoft Windows 3.1 or above.
- 486/66MHz CPU, 8 Mbytes main memory, and a 3 1/2 inch floppy disk drive.
- For workstations that must print images, the KOFAX KF-940 software print engine.
- If user-designed database reports are desired, Crystal Reports 3.0 or above is required.

All of the above components are available through hal Systems Corporation.

Networks Supported

The multi-user version of halFILE for Windows™ Viewer supports any Network system that can run Microsoft Windows™ 3.1 or higher on a workstation. The product has been successfully certified on the following:

- Novell Netware 3.1 or above
- Banyan Vines
- Performance Technology PowerLan

Installation Requirements

halFILE for Windows™ Viewer requires approximately 5 MBytes of disk space.

Preparing the Hardware and Software Components

The first step in building an imaging system based around halFILE for Windows™ Viewer is to properly install the hardware and software components to be used. This includes:

- installing the necessary boards (such as the KOFAX image processing board) into the computer
- installing Microsoft Windows™
- installing the required KOFAX drivers (ImageControls, KF-940, etc.)
- testing the system to ensure it is operating properly

Software Installation Procedure

Installing the KF-940 Print Engine

The KF-940 diskette from KOFAX must be installed on each workstation that will need to print document images. The KF-940 installation comes in DOS or Windows versions. If you are installing the Windows version, run SETUP.EXE on the first diskette from the Windows Program Manager and follow the prompts. For DOS installations, use the following procedure:

1. From the Windows Program Manager, select FILE-EXIT to exit Windows and go to a DOS prompt.
2. With the KF-940 diskette in the drive type: A:INSTALL
3. Follow the prompts. you will be asked to supply a serial number which can be found on the diskette label. Also, change default target directory from \KIPP to \KF940.
4. When the installation options menu is displayed, select **3. Install KF-940**.
5. From the next menu, select **2. Install Selected Software**.
6. From the list of items to install, press the space bar to disable everything except 'Install KF-940 Files'.
7. Run the installation procedure.
8. Modify your AUTOEXEC.BAT to include a path to the \KF940\BIN directory.

Installing ImageControls

ImageControls from KOFAX is the engine that drives scanners, displays images and includes all the special image processing features supported by halFILE for Windows™. The following describes the installation process for ImageControls.

1. Insert ImageControls Peripheral Files Diskette #1 into the appropriate drive.

2. Display the Run... option from the File menu in the Program Manager, and enter the following at the command line:

a:\setup

3. Follow the instructions displayed on your screen.
4. During the installation process, a box showing the directory and drive to which ImageControls will be installed is displayed. Be sure the path shown is correct.
5. Continue to insert the ImageControls installation diskettes as the setup program asks for them.
6. During the installation process, you are asked if you wish to modify your AUTOEXEC.BAT file. Whether you are Yes or No to this question, you should review the AUTOEXEC.BAT file to be sure a path statement points to the ImageControls 'BIN' directory. Be sure the path to this directory is before the KF920 or the KF940 directory. For instance, your path statement should look something like the following:

```
PATH C:\WINDOWS;C:\IMGCTLS\BIN;C:\KF940\BIN
```

A set statement similar to the following should also be added:

```
SET BICCFG=C:\IMGCTLS\BIN\BIC.CFG
```

6. At the end of the installation process, you must specify the engine properties to be used on the station. Engine properties define the hardware or software drivers used to scan, display and print document images. Refer to Appendix I for a discussion of the various KOFAX engines. KOFAX ImageControls drivers are installed as an icon in the Windows Control Panel.

KOFAX ImageControls is a set of drivers providing image processing functions such as scanning, displaying, image rotation and more.

Installing halFILE for Windows™ Viewer

If you are using Microsoft's Windows for Workgroups™, before running the install routine, you should run SMARTDRV to cache the diskette drive you are installing from. This will speed up the installation process. For example, from the DOS prompt, type: 'smartdrv a+' to cache diskette drive A:

To install halFILE for Windows™ Viewer on your system, use the following procedure.

Note: *To execute the setup program, you must be in the Windows Environment.*

1. Insert halFILE for Windows™ Viewer Diskette #1 into the appropriate drive.
2. Display the Run... option from the File menu in the Program Manager, and enter the following at the command line:

a:\setup

where a: is the drive containing diskette #1.

3. Follow the instructions displayed on your screen.
4. During the installation process, a box showing the directory and drive to which halFILE for Windows™ Viewer will be installed is displayed. Be sure the path shown is correct.

***Note:** The multi-user version of halFILE for Windows™ Viewer must be installed on every work station on which it will be run. This ensures that the necessary driver files will be copied to each station's \WINDOWS\SYSTEM directory. The halFILE directory for network systems can either be a local hard disk drive or a common network directory accessible by all stations.*

5. Continue to insert the halFILE installation diskettes as the setup program asks for them.
6. Once the installation process is complete, a halFILE group is created which includes the following halFILE for Windows™ Viewer icon shown below.



Double clicking on this icon loads halFILE for Windows™ Viewer.

Also, installed is the halFILE for Windows™ Administrator icon shown below.



Use this icon to perform set up functions such as defining a document database.

If this is a dedicated halFILE For Windows™ Viewer machine you can place a copy of this icon in your Startup group by clicking once on the icon, pressing F8, and selecting the Startup group from the “dropdown” list. This will place the halFILE for Windows™ Viewer icon into the Windows Startup group so halFILE is automatically loaded whenever Windows starts.

HALFILE.INI

HALFILE.INI, a file located in the Windows default directory, contains special parameters used by halFILE that let you customize the system. This explains the entries and how they are used. You can use a text editor or Windows Notepad to change this file. The lines in italics are the description of the line and do not go into HALFILE.INI.

halFILE For Windows section

The halFILE for Windows section contains the following information:

[halFILE For Windows]

Section header that identifies the section.

Station=000

A unique 3-digit number for this workstation. This can be maintained within halFILE for Windows using Configure-Station.

Name of Application=halFILE for Windows

The name of the application shown on the main title bar. This line is automatically entered when the program is run the first time, but it can be changed.

Program Directory=<path to HALFILE.EXE>

The directory where halFILE.EXE is loaded. This entry is made for you the first time you run halFILE for Windows.

Report Title=<Crystal Report Heading>

The name of the Crystal Report program, CRW.EXE. Typically, this is 'Crystal Report Standard' or 'Crystal Report Pro'.

Report Directory=<Crystal Report directory>

The location of the Crystal Report program, CRW.EXE. This can be maintained within halFILE for Windows using File-Report. For instance, if the location of the CRW.EXE is C:\CRW, this line should read 'Report Directory=C:\CRW\'. (Include the backslash character at the end of the path name).

ViewOnly=YES

This is set to YES to enable Viewer only menu selections from within the halFILE for Windows Administrator.

Novice=YES

This is set to YES to enable the search wizard to simplify the search process for novice users.

Current Section

The Current section of halfile.ini contains the following information:

[Current]

Section header for current information.

Application=<application id>

Most recently used Application id. This is the application that was last opened by halFILE for Windows on this computer. This is automatically maintained by halFILE for Windows.

Document Type=<document id>

Most recently used Database id This identifies the image database that was last opened by halFILE for Windows on this computer. This is automatically maintained by halFILE for Windows.

Basket=<basket name>

Most recently used Basket. This identifies the basket that was last opened on this computer. This is automatically maintained by halFILE for Windows.

HALFILE.INI Entries for Attached Tables

A section in HALFILE.INI enables a 'pop-up' search feature fields that are linked to an externally attach table. For instance, if you were linking a Policy Number from your image database to a Policy Number in an external Policy Master Database, these HALFILE.INI entries make the question mark icon appear when the Policy Number field is active. Clicking the question mark icon will display the information from the external table and let you search and select information within the table. The following sample entries placed into HALFILE.INI illustrates how this feature is enabled.

[aaaHFWdd]

This section header identifies the halFILE database. 'aaa' is the application id and 'dd' is the document type. 'TSTHFWIM' would be entered if the application was 'TST' and the database document type identifier was 'IM'. You must include a section for each image database that has a link to an externally attached table.

ExternalDatabaseName=<file name>

The external attach database file name. If the Microsoft Access database 'POLICY.MDB' was the attached table, you would enter 'ExternalDatabaseName=POLICY.MDB' on this line.

ExternalDatabasePath=<PATH NAME>

The directory where the external database resides. For instance, if the POLICY.MDB file is located in C:\POLICY, then this line would read 'ExternalDatabasePath=C:\POLICY\'. Be sure to include the backslash at the end of the path.

LookupTable=<Microsoft Access Table name>

Enter the table name within the external database that is attached. For instance, if the POLICY.MDB database included a table named 'Policy Master' that was being attached, this line would read 'LookupTable=Policy Master'.

LookupString=<field number 1>;<field length 1>;<field number 2>;<field length 2>....

The lookup string identifies what fields will appear on the pop-up form and how many characters should be displayed from each field. For example, if you wanted to display the first 3 fields from the Policy Master table and those fields were 'Policy Number', 'Last name' and 'First name', you would enter 'LookupString=0;10;1;20;2;15'. The pop-up form would then include ten characters of the Policy Number (field 0 in the table), twenty characters of the Last name (field 1) and fifteen characters of the First name (field 2).

LookupTitleBar=Policy Holders

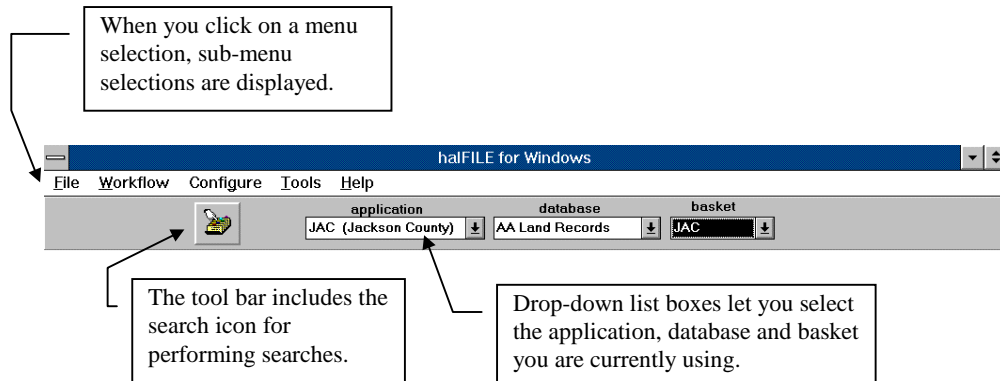
This line indicates the message that appears in the title bar of the pop-up box.

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ADMINISTRATION



halFILE for Windows™ Administrator is used to perform system configuration activities. The screen below shows the first menu screen once the Administrator icon is double-clicked.



The selections across the top (File, Workflow, Configure, Tools, Help) provide pull-down menu options. The search icon on the left side below the menu provides a way to start the Viewer from the Administrator. If the 'ViewOnly' entry in HALFILE.INI is set to 'NO' (see the previous section), the toolbar will include other icons for Scan, Index, Archive and Quick Copy. These are options available in the full halFILE for Windows version but not available in the Viewer. The pull-down list boxes let you choose applications, databases and baskets. Before clicking the icon, be sure the proper application, database and basket is selected.

Viewing the help file

Clicking on the help menu selection (ALT-H) displays two menu selections. The **Help-Index** selection displays the index to the help file. The **Help-Search for help on** menu selection provides a way to search for keywords in the help file. The **Help-About** displays version information. At any point in halFILE for Windows™, context sensitive help information can be viewed by pressing the F1 key.

Exiting the Administrator

File-Exit closes the halFILE for Windows™ Administrator application.

Registration

The first time you run halFILE for Windows™ Administrator, you are asked to register the product. Please fill out the registration form and fax or mail it to the address shown on the form. You can then click the continue button to use halFILE. You will be sent a

registration number to enter into the registration form that permanently registers your copy of halFILE for Windows™ Administrator and the Viewer.

Setting up the Parameter Database

Once halFILE for Windows Administrator is properly installed, the parameter database which contains the system set up must be created. The first time you run halFILE for Windows™ Administrator, the system displays a prompt asking you if you wish to create the parameters database. Answer yes to build this database.

Setting up an Application

The next step in setting up halFILE for Windows™ Administrator is to build an application so you can use the system.

*An **APPLICATION** is an organization or entity that consists of one or more halFILE databases as well as one or more halFILE in-baskets used as electronic containers holding image files.*

An application can be built by selecting File-New or File-Application. **File-New** goes through the steps of building an application, creating a database for indexing documents and creating the electronic in-baskets used to hold images. **File-Application** can be used to change the set up for an existing application or to create an application without creating the associated database and in-baskets. If you select File-Application to create a new application, you need to select **File-Database** and **File-Basket** to set up a database and in-baskets for the new application.

When you select File-New, a form to add a new application is displayed. Enter a 3-character Application Id that uniquely defines the application. An application name, last image number used and the folder option is also entered (see **Changing an application definition** below for more information). When the OK button is clicked the application is saved and the next form is loaded.

The second form to be entered for File-New defines the database that is used to index documents which are scanned or imported into halFILE for Windows™. This form includes columns for the field caption, field type, field length and table definition. Refer to the **Designing a Database** section below for more information.

The third form to be entered for File-New defines the electronic in-baskets that will be used to hold images temporarily after they are scanned. Refer to the **Setting up Electronic In-Baskets** section below for more information.

The Application Definition

The application is used to group databases under a single organization. Before defining a database for documents, you must define an application within which the database will exist.

Defining a new application

1. Select File-Application from the main menu to list any existing applications.

2. Select either File-New from the application menu or click the add button found on the bottom of the application form.
3. Fill out the Application Form and press the Save button.
4. Remember to design the database(s) and set up the In-baskets for the application so the application can be used.

Changing an application set up

1. Select File-Application from the main menu to list any existing applications.
2. From the list of defined applications, highlight the desired application and press the edit button or double click on an application to change the information.

The information for an application includes:

Application Name - describes the application.

Last image number used - this contains the number of the last document that was added to the system. The scan routine increments this number by one for each document scanned.

Under normal conditions this value should not be altered.

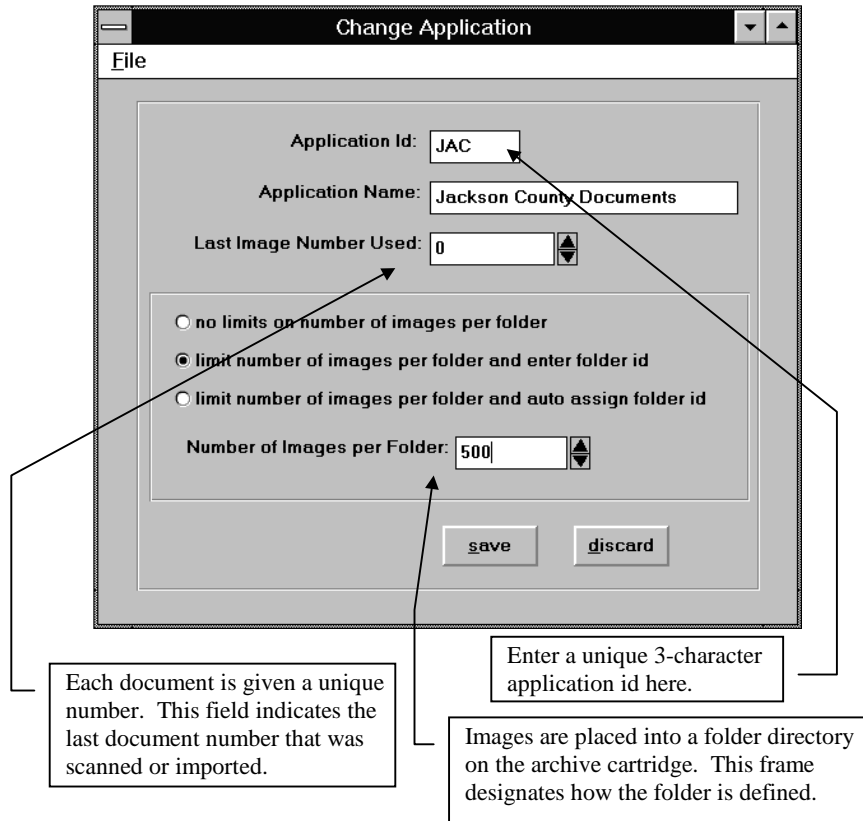
Folder Options - since certain permanent storage media tend to slow down as the number of images in a directory increases, folder options are provided for maintaining optimal performance. These options also describe to the system how the folder id field is assigned. The folder id, entered for each document, is used as the directory into which images are placed on permanent storage media. Folder options include:

no limits on number of images per folder - with this option, the user enters the folder id and there are no restrictions on how many images can be placed into the folder (directory).

limit number of images per folder and enter the folder id - with this option, the user enters the folder id and each folder is limited to a user-defined number of images.

limit number of images per folder and auto assign the folder id - with this option, each folder is limited to a user-defined number of images and the system automatically defines the folder id.

number of images per folder - this option is shown for options 2 and 3 above. Enter the number of images allowed in each folder. A typical setting would be 1000. This would limit the number of images in each directory on the permanent storage medium (optical disk, CD-ROM, etc.) to 1000.



Designing a Database

halFILE for Windows™ uses a Microsoft Access™ database to store the data that will be keyed to a document. This section describes how that database is created and how the fields are defined.

Creating a document database

1. Select **File-Database** from the main menu.
2. Select the **Add New** button to create a new database. This loads a form for setting up fields within the database (see below).
3. The first 7 rows are pre-defined by halFILE for Windows™ and used to maintain information about a document
4. User-defined fields begin with the eighth row. Double click on a row to add or change the field specification. This displays the field specification for the current row and the following must be supplied:

Field name - this is used to identify the field and should be unique for the database. What is entered here will be displayed as the field caption on screens showing database information.

Field type - this defines the type of data that can be entered into a field. Double-click on the cell to view the valid field types. These include:

Text - consists of any character, letter or number.

Integer - numeric field in the range -32,768 to 32,768 (whole numbers)

Long Numeric - numeric field in the range -2,147,483,648 to 2,147,483,647 (whole numbers).

Double Numeric - numeric field in the range -1.79769313486232 E+308 to -4.94065645841247 E-324 (negative values) and 4.94065645841247 E-324 to 1.79769313486232 E+308 (positive values). This includes a floating decimal point. Use this field type for numeric fields that require a decimal value.

Date - date field

Note: If you include the day of the week in the Windows Long Date format, Access search engine will be unable to properly search for dates. Any other date format, excluding the day of the week, works correctly. The Windows Long Date format is set using the International icon in the Windows Control Panel.

Memo - field where as many as 65,500 characters (64K) can be entered.

Note: If you need to search the contents of a field, do not use type Memo. Memo fields are searchable, but are not indexed for fast access.

M-E Text - Multi-entry, indexed field where many lines of text can be entered for a single document.

M-E Integer - Multi-entry, indexed field where many lines of integer values can be entered for a single document.

M-E Long Numeric - Multi-entry, indexed field where many lines of long numeric values can be entered for a single document.

M-E Double Numeric - Multi-entry, indexed field where many lines of double numeric values can be entered for a single document.

Bar Code - a field can be designated as a bar code and then filled in automatically during index when a bar code on the image is recognized. To teach the system how to recognize the bar code, refer to the section called Configuring Bar Code Fields later in this chapter.

None - field type is undefined.

Field length - defines the maximum length of the field in number of characters.

Table type - this column defines if a field is to be validated against either a halFILE for Windows™ table or an external Access database.

Table name - this identifies the table to be used if the table type column is set. Tables of type 'internal' are created using File-Table within halFILE for Windows. 'External' table types must be created by the user and are assumed to be Microsoft Access tables.

- Once all the fields required for your database are defined, select File-Build New Database from the menu to create the database.

Using templates

Templates of a database structure can be used as a starting point when creating a new database. Some example templates for different industries are supplied with halFILE for Windows™. You can also save the database structure of your database to a template using the File-Save Template menu selection. The Open-Restore Template menu selection will

list the available templates and, when a template is selected, will load the structure from the template into the fields on your database design form. You can then make any necessary adjustments before building the database. Refer to Appendix II for more information on pre-configured templates supplied with halFILE for Windows™.

Changing the structure of a database

The field structure of an existing halFILE for Windows™ document database can be altered. When changes are made, the system re-writes the entire document database into the new structure.

1. Select File-Database from the main menu.
2. Click the Restructure button.
3. The database field form is displayed. Make the necessary adjustments by double-clicking on the row that should be altered. To add or remove rows, use the Edit menu.
4. Select File-Begin Restructure to restructure the document database to the new format.

The Document Database Restructure routine may eliminate or truncate data within fields based on the changes you make to the structure. Therefore, you should back up the database prior to performing a restructure.

Attaching External Tables to a halFILE Database

You can attach an external Microsoft Access™ or ODBC-compliant database table to your halFILE database using the External Attached Tables feature. Once an external table is attached, it appears to be a subset of your image database. A field from your image database is linked to a unique key field in your external database.

To illustrate this feature, consider a insurance database where an external database contains Policy Master information that you do not wish to re-key for each document scanned. You can attach a Policy Number field in your image database to a Policy Number field in your Policy Master database. Then, when you index a document, you key the Policy Number and the Policy Master information is automatically displayed. This information can be searched and updated as well.

To attach an external table and establish these links, perform the following:

1. Select **File-Database** from the main menu.
2. Click the **Restructure** button.
3. Select **Tools-Attach External Table**.
4. Press the **select** button to the right of the database name field and select the database you wish to attach.
5. Select the table to attach to from the list of tables in the table box.
6. Press the **OK** button. This returns to the database field form which now contains an additional frame for the attached table.
7. Specify the field in your image database beneath which the attached fields will appear.
8. Select the field to link between the two database using the 'match' field boxes at the bottom of the frame.
9. Select **File-Exit**. The external database is now attached to your Image database.

Note: The HALFILE.INI defines how an attached table lookup feature is enabled. Refer to the HALFILE.INI section at the end of this chapter for more information.

To attach an external ODBC database table:

1. From the File-Database Restructure menu selection, and select Tools-Attach External Table.
2. Enter the ODBC database name into the database name field.
3. Click on the table selection arrows. Since the database cannot be found, you are asked: Is this database accessible through ODBC?
4. Answer Yes and the Data Source box is displayed for selecting the database ODBC server. Login into the server and the tables within the selected database should appear.

Changing the location of a database

It may become necessary to move a document database to a new location. To do this, perform the following procedure:

1. Select **File-Databases** from the main menu.
2. Click the **Location** button. This lists the document types (or databases) for the application and the disk location of the database.
3. To change the directory in which the database is located, click on a directory within the directory box. The path box will reflect the change.
4. To change the drive on which the database resides, click the drive box. Again the path box will reflect the change.
5. Click the save button. If the database is not found in the new location, you are asked if it should be moved to the new location. Answer yes to move the database. If you answer no, the path will point to a location where no database can be found and an error will occur. In this case, the database must be moved to the new path before the database can be used.

Setting Up Electronic In-baskets

The **File-Baskets** menu selection (hot keys ALT-F-B) is used to change the location of an existing basket or define a new basket.

*A **Basket** is an electronic container which holds images. When an image is scanned, it is placed into the drive and directory designated by the currently selected basket. Future work on the image such as indexing and archiving, is performed through this in-basket. Once the image is archived, it is removed from the in-basket.*

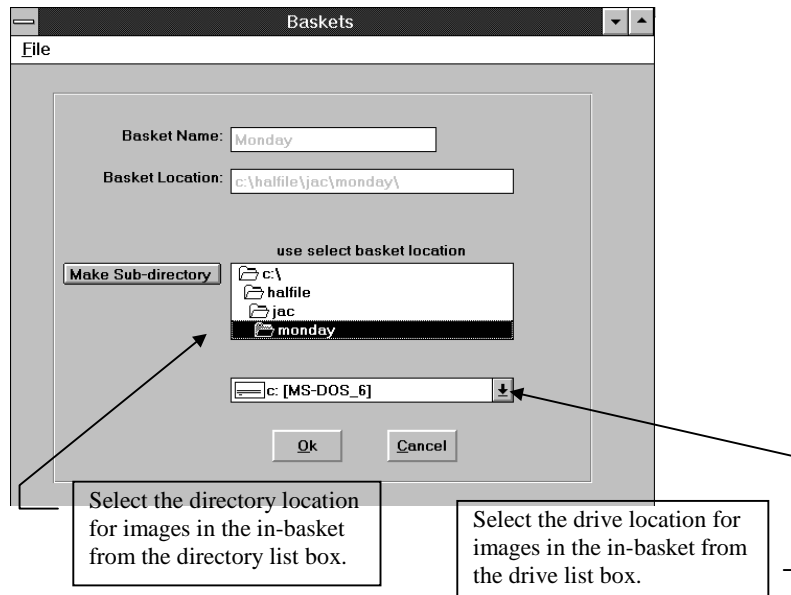
Setting the location of a basket

1. Select the **File-Baskets** menu to list any existing baskets.
2. To change the location of an existing basket, double click a basket in the list or highlight a basket in the list and click the edit button. To add a new basket, press the **Add** button at the bottom of the form. This displays the in-basket following example.
3. To change the directory in which the basket is located, click on a directory within the directory box. The path box will reflect the change. To change the drive on which the basket resides, click the drive box. Again the path box will reflect the change. The **Make Sub-directory** button is provide to create a subdirectory beneath the current directory displayed in the Basket Location box. For example, if the Basket Location is set to 'C:\HALFILE' and the Make Sub-directory button is clicked, you will be asked to enter a subdirectory name. If you entered 'Monday' for the name, then a directory

called 'Monday' is created beneath 'C:\HALFILE and the Basket Location is set to 'C:\HALFILE\MONDAY'.

Using separate directories for different baskets can be useful for two reasons. (1) It helps separate the image files so they can be more easily identified or located if necessary. (2) Image files can be located on different drives to better use the disk space available.

4. When the save button is clicked, if any document images exist in the basket, you are asked if they should be moved to the new location. Answer yes to move the images. If you answer no, the path will point to a location where the image cannot be found and an error will result. In this case, the documents must be moved to the new path before they can be used.



Changing or Adding Reports

halFILE for Windows™ provides an interface to Crystal Reports for designing reports of database information. To use this interface, you must have Crystal Reports 3.0 or higher installed. Reports can be defined either using the **File-Reports** selection (ALT-F-R) or by selecting the design option from the edit report window within search. Use the **File-Reports** selection to edit existing reports and to define the location of the Crystal Report program. For new reports, select the Report button from the search hit list. Refer to the Search for Documents section for more information.

Refer to the Crystal Reports manual for information on setting up reports. If you do not have Crystal Reports, hal Systems Corporation will design and implement custom reports for you. Call for pricing.

Configuring Stations

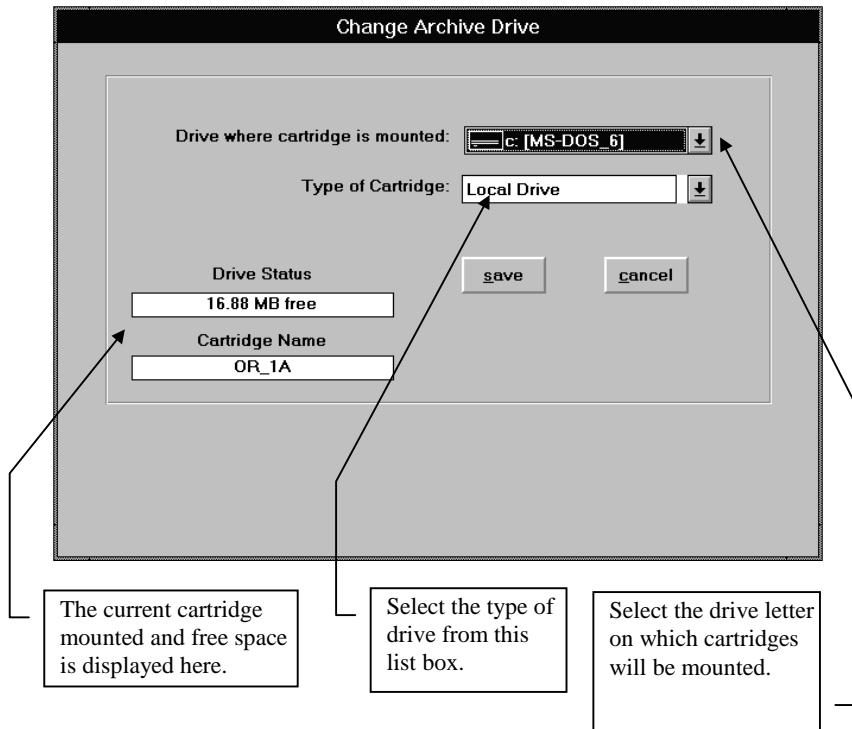
The multi-user version of halFILE for Windows™ requires each workstation to have a unique station id. To define this 3-digit id:

1. Select **Configure-Stations** selection (ALT-C-S) from the main menu.
2. In the box provided, enter the 3-digit station id. Pressing on the up or down arrows to the right of this box increments or decrements the station id.
3. This selection should be run on each network station, with each station getting a unique id. The station id is saved in the halfile.ini file in the \Windows directory.

Defining Drives into which Archive Cartridges are placed

Images for an image database are archived to some type of permanent storage media such as optical or magnetic disk. A drive table containing the drive letters that can contain archive media must be defined. For instance, if a WORM (Write-once, read-many) disk is mounted on the computer as drive E:, then drive E: must be placed into the drive table. To define the drive table:

1. Select **Configure-Drives** from the main menu.
2. Any existing drives are listed along with the cartridge name that the drive currently contains (if any).
3. To add a new drive, press the **add** button.
4. To edit an existing drive, double click the drive letter or highlight the drive letter and press the **edit** button.
5. On the drive form, select the drive letter and the drive type from the lists provided. Before defining drives, the drives should be mounted and available.



***Network considerations** - when defining drives on a network system, try to consistently mount or map the drives to the same drive letters on all workstations and for all user logins which use halFILE for Windows™.*

Defining Cartridges onto which Document Images are placed

The media placed into the archive drive is called a cartridge. Typically, a cartridge relates to some type of removable media such as Write-Once Read-Many (WORM), Magneto-Optical (MO) or CD-ROM cartridge. However, a local hard disk drive, a network hard disk drive, or part or all of a juke box could be treated as a single cartridge. The cartridge table identifies the media to halFILE for Windows™ and must be set up before a cartridge can be recognized. Before defining cartridges, define the drives that will hold cartridges using **Configure-Drives**, as described in the preceding section. If you are defining a new cartridge, place the cartridge into a drive and format it (unless it is pre-formatted) before using this selection.

*To format a new cartridge, refer to the manufacturer's documentation for more information. **Do not use the DOS FORMAT utility.***

Defining a cartridge

1. Select **Configure-Cartridges** from the main menu. This will list any currently defined cartridges.
2. To add a new cartridge, press the **add** button. To change an existing cartridge, either double click on the cartridge name or highlight the cartridge name and press the **edit** button.
3. Enter the following information for the cartridge:

Cartridge Name - an eight character unique name of the cartridge. In cases where the cartridge is a Novell mapped drive, this name must be the same as the label for the cartridge. An example of a cartridge name is 'TWC1A' where 'TWC' is the application id and '1A' indicates cartridge 1 side A.

Cartridge Description - up to 30 characters which describe the cartridge. For instance, a cartridge description for 'TWC1A' would be "Toledo Widgets Cartridge 1 Side A."

Type - this describes the type of media being used. A drop down list of valid options is accessed by clicking the down arrow to the right of the data entry box. Valid types are:

Network drive - this is a shareable magnetic, optical or CD-ROM disk.

Local drive - this is a non-shareable local disk.

Netware Mapped drive - this is a removable magnetic, optical, or CD-ROM disk that can be 'mapped' to a selected drive using Novell's MAP command.

4. Select the **initialize** button to initialize the cartridge. When you initialize a cartridge, have a formatted cartridge in a drive. The system will ask into which drive the cartridge is placed and then writes to the cartridge in the selected drive.

The system initializes a cartridge by placing a file named OPTICAL.HAL, containing the name of the cartridge, into its root directory. It is recommended that the label on the cartridge and the cartridge name be the same. For cartridges of the type Novell Mapped Drive, it is mandatory that the volume label and the cartridge name be the same for proper mapping of the cartridge.

The following shows a sample Cartridge Definition form.

The initialize button 'stamps' the cartridge with the cartridge name so it can be properly identified.

The cartridge description helps you identify the cartridge.

Enter an eight character unique cartridge id here.

Defining Validation Tables

When the data for a scanned document is entered into halFILE for Windows™, it can be validated against a table.

*A **Table** is a file that contains the valid entries for a particular field in your database. For instance, you could set up a table of valid subdivision codes. When a subdivision is entered into the database, halFILE for Windows™ would verify that it is valid by looking up the value in the table.*

You can use validation tables to verify data as it is entered into a database field. This insures that the data is consistently entered into the database. If a field is set up to use a validation table, the table entry keyed must be in the table. Some examples when a validation table could be used include:

State Codes	Employee Name Abbreviations	SIC Codes
County Codes	Vendor Codes	Subdivisions
Document Types	Account Numbers	Colleges

***Validation tables** increase the validity of your database by standardizing data entry. These tables force consistency and conformity among all users of the system.*

Creating a new validation table

1. Select **File-Tables** from the main menu.
2. On the table form, select the **Create Table** button (or select the **File-New** menu selection) to create a new table.
3. Enter the name of the table.

Adding or editing entries in a table

1. Select **File-Tables** from the main menu.
2. From the list of validation tables, highlight the table to work with and press the **Load Entries** button (or double click the table name). This loads the entries into the right-hand box.
3. Press the **add entry** button to bring up the new table entry form to add a new entry.
4. Double click an entry (or highlight an entry and press the **edit entry** button) to edit an existing entry.
5. Enter a unique code along with a description of the entry and press the **save** button.

Searching for an entry

1. List the entries for a table as described above.
2. Press the **Find** button and enter a partial description to search for.
3. The first entry matching the search criteria is displayed. Press the **Find Next** button to continue the search.
4. You can also press a letter from the letter box to jump to the first entry with a code beginning with the selected letter.

Deleting an entry in a table

1. Select **File-Table** from the main menu.
2. From the table list, double click the table for which you wish to delete an entry.
3. Highlight the entry to be deleted and press the **delete entry** button.

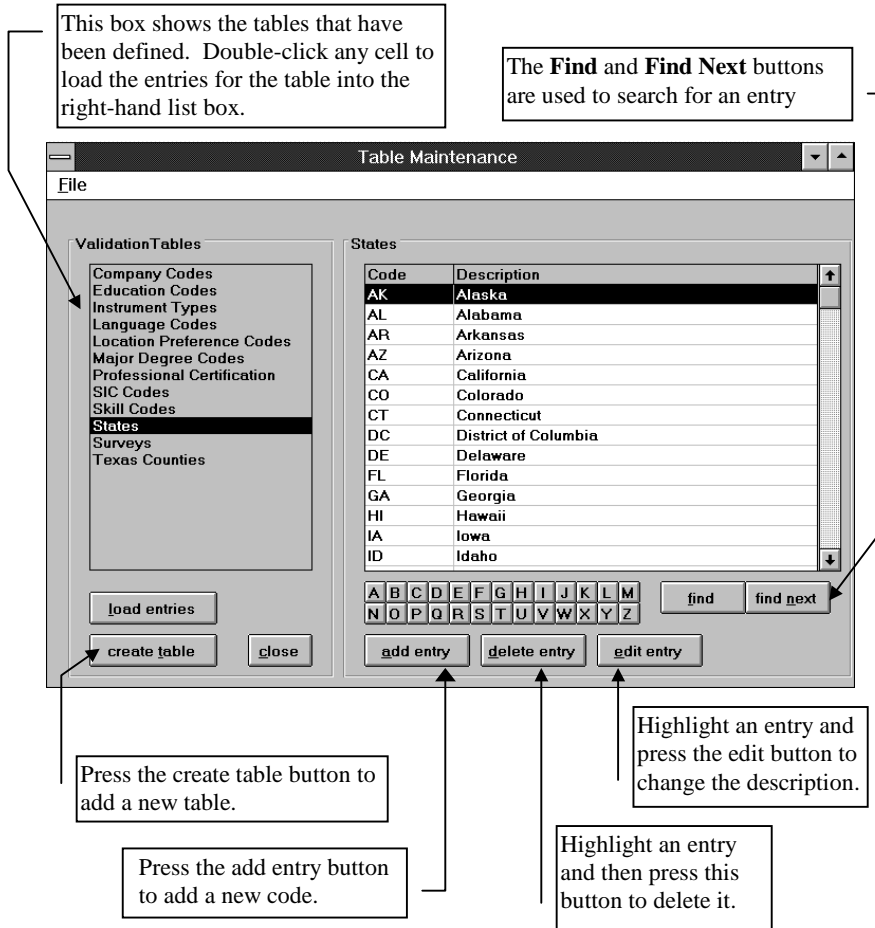
Deleting a table

1. Select **File-Table** from the main menu.
2. Highlight the table to be deleted. (Do not load the entries for the table you wish to delete because this will 'lock' the table and prevent deletion.)
3. Select **File-Delete** from the menu.

Printing a list of table entries

1. Select **File-Table** from the main menu.
2. Highlight the table to be printed.
3. Select **File-Print** from the menu.

To exit the table maintenance routine, select **File-Close**.



Adding Predefined Tables

The installation diskettes include some predefined table that may be useful in your application. These include:

- Instrument Type Codes (for Title Plant applications)
- Area Codes in the U.S.
- Zip Codes in the U.S.
- States
- Texas Counties

To add one of these tables to your table database, select File-Add Predefined Table from the Table menu. A list of tables that are available will be shown for your selection.

Looking Up a Field in a Table

When you are entering data into the database (either in Index or in Search, a **question mark** will pop up to the right of each table driven field. Clicking on this question mark or

pressing F2 lists the valid entries in the table. Here, the **page up** and **page down** buttons can be used to move up and down through the table. The **ESC** key can be pressed to exit the look up without selecting an entry. **Double clicking** or pressing **ENTER** on an entry selects the entry and fills it into the database field.

To search for an entry in the table listed, click on the **find** button. This display two boxes. The top drop down list box is used to select the field to search for while the bottom text box is used to enter the data to search for. Once the data to search for is entered, click the **search** button to begin the search. A **find next** button will appear to find repeated occurrences of the search criteria.

You can also jump to the entries within the table by pressing the **first letter or number** of the table key field. For instance, if a document type field is table driven and has entries of Legal Docs, Letters and Memos, pressing the 'L' key jumps to Legal Docs, pressing the 'M' key jumps to Memos.

To add an entry into the table, press the **insert** button.

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VIEWER

Overview of Viewer



Double click the Viewer icon to run the Viewer. The Viewer is used to search indexed documents using search criteria based upon the popular Structured Query Language (SQL). The user, however, does not need to know SQL. Rather, the Viewer provides a search criteria form that can be filled out by the user and formats the proper SQL instructions for the search automatically. The Viewer also provides a 'Novice' mode to walk beginning users through the process of performing a search. See the 'Novice' line in the HALFILE.INI file (described in Chapter 3).



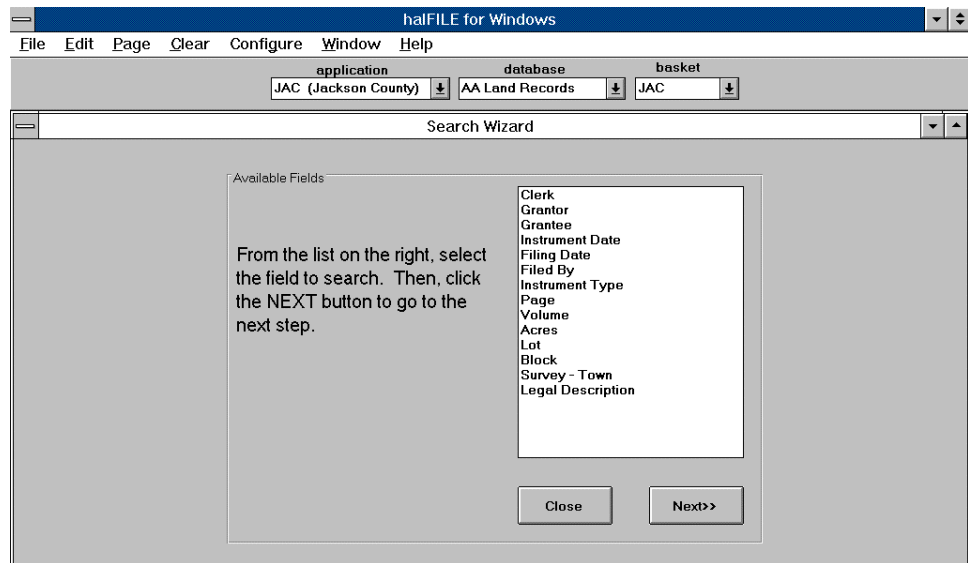
If you are in the Administrator, the viewer can also be accessed by clicking the Search icon located on tool bar.

Novice Search Wizard

If the **Novice** parameter in HALFILE.INI is set to YES, the Novice Search Wizard described below is enabled.

Selecting the database field to search

The first Novice Search Wizard screen lists the database fields that can be searched as shown below. Click the field that you want to search and then click the **Next** button to continue with the next step. To close the viewer, click the **Close** button.



Searching on Table Fields

halFILE for Windows supported table driven fields where a valid code must be entered into a database field. This is useful into standardizing data entry to help ensure valid and consistent data. In the Novice Search Wizard, if a table driven field is selected, the program lists the valid codes so the user can select the code to search for from the list. As shown in the screen below, the user can use **Page Up** or **Page Down** to browse through the list of valid codes. Press the **Find** button to search for a partial description within the list. You can also press the first letter of a code to jump to the first code that starts with that letter. Double click a code to select it and go on to the Begin Search screen described below.

This is the list of valid codes for the selected field.

The Page Up and Page Down button are used to browse through the code list.

Instrument Type	
A/CP	Authenticated Copy of Probate
AABS	Assign., Convey. & B/S
ABSC	Assignment Bill of Sale/Conv.
AC	Affidavit of Commencement
ACOM	Affidavit of Completion
ACP	A/C Probatae
ADPT	Adoption
AFF	Affidavit
AFH	Affidavit of Heirship
AFML	Affidavit of Mechanic's Lien

From the list of valid codes above, double click the code that you want to search for.

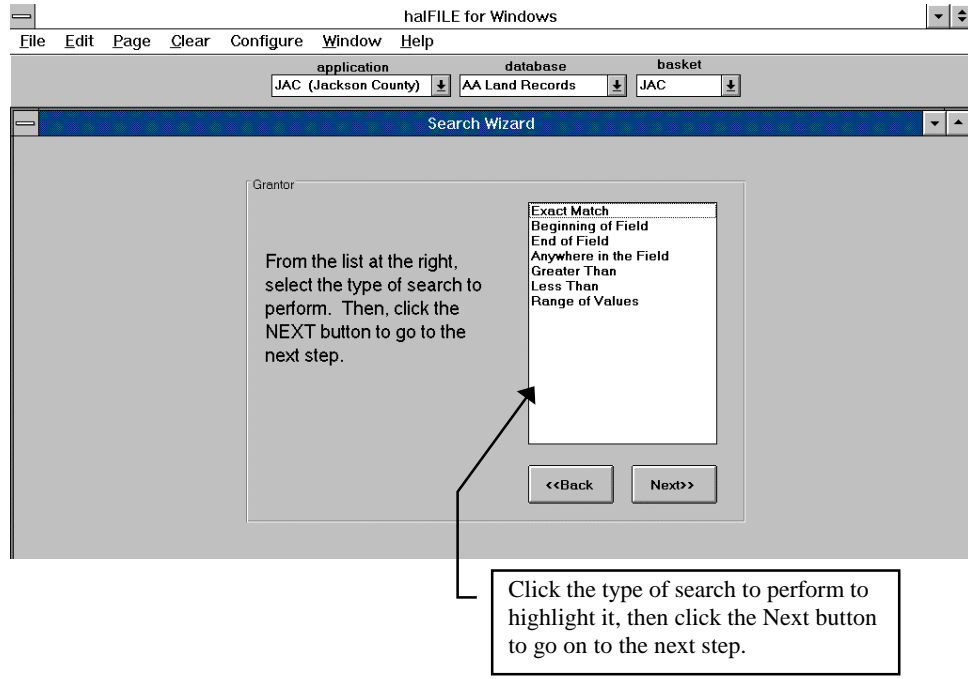
To find a code, press the first letter to automatically jump to the first code beginning with that letter, then use the Page Up and Page Down buttons to find the desired code.

Or, press the Find button to enter a partial description to search for, then use the button to find the desired code.

The Find button is used to search for a partial description. This activates a Find Next button used to locate the next matching occurrence.

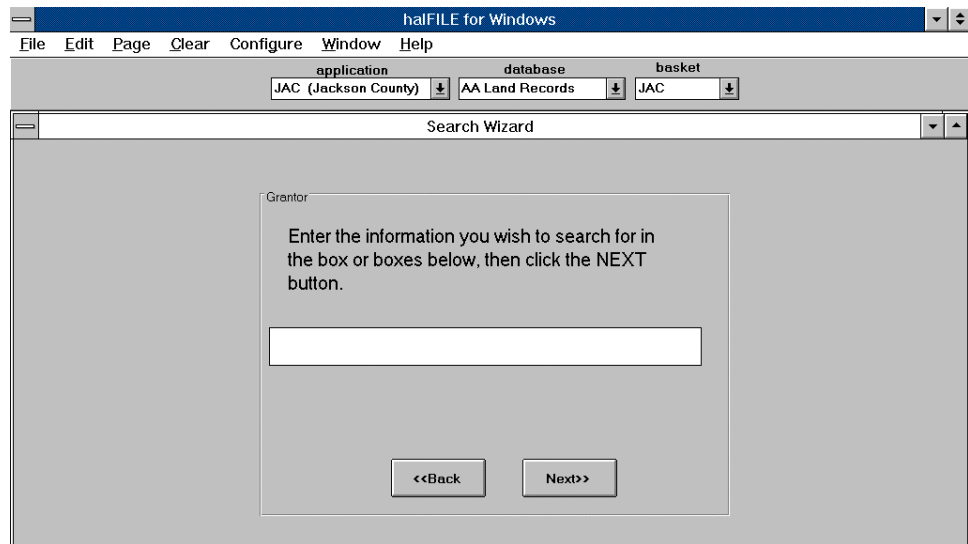
Specifying the Search Type

The second step to the Novice Search Wizard is used to specify the type of search to perform. Select the search type from the list and click the **Next** button to continue. For an explanation of these search types, refer to the **Criteria Field Types** section later in this chapter. To return to the search field selection screen, click the **Back** button.



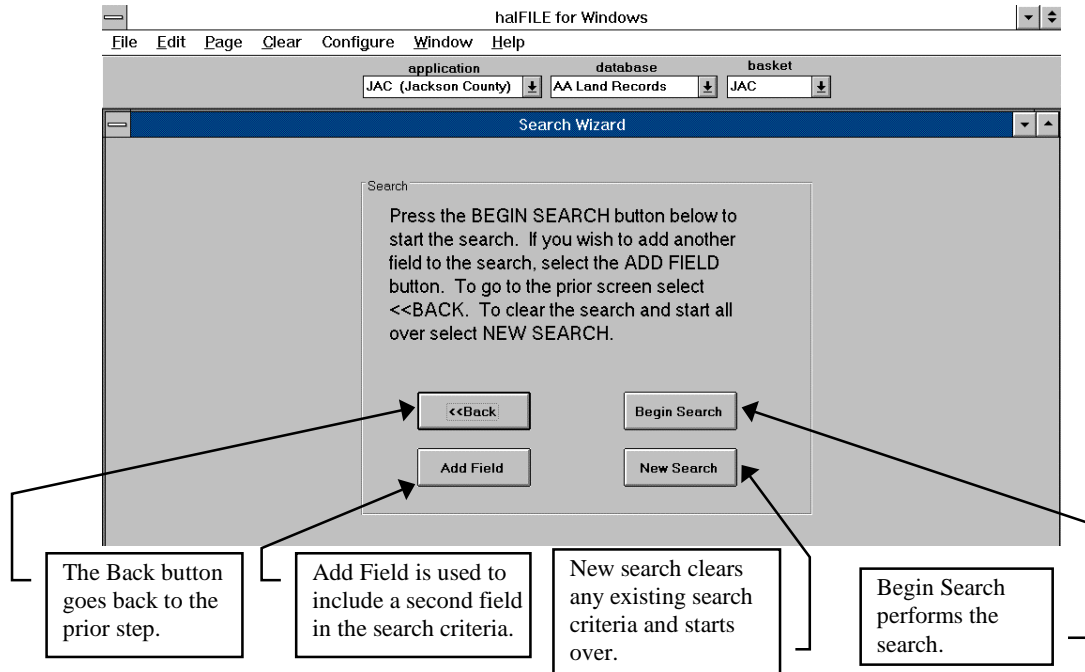
Entering the Search Criteria

The next screen lets you enter the data to search for as shown below. Enter criteria to search for and press **Next** to continue. Click the **Back** button to return to the Search Types screen. If a range search was selected, two boxes are provided to enter the 'From' and 'Thru' range for the search.



The next screen provides several options for the user. To search for the data you just entered, click the **Begin Search** button. To return to re-enter data to search for, click the

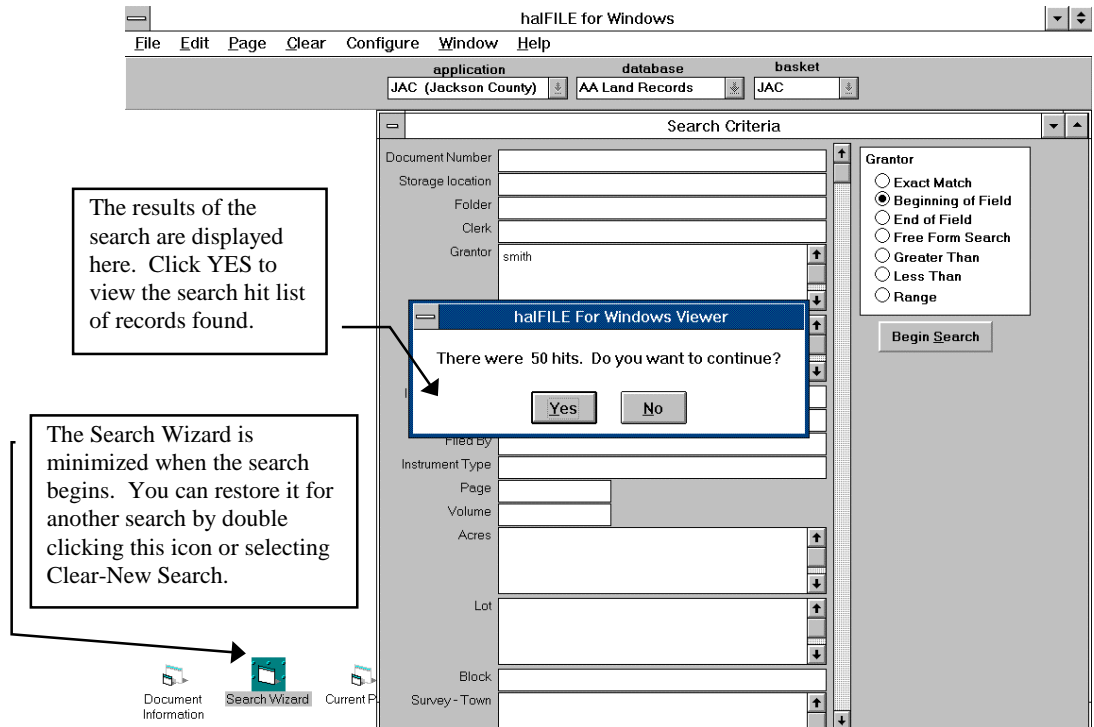
Back button. To include another field in the search, click the **Add Field** button. To discard this search and start another, click the **New Search** button.



Begin Search

After clicking the Begin Search button, the data for the search is automatically entered into the Standard Search form and the search starts. The count of records found in the search is displayed (see sample below) and you are asked if you wish to continue. Press YES if you want to review the search results. Press NO to discard the search results.

At this point, all the options for working with the search results are available to you just like the Standard Search procedure described in the following section.



Standard Searches

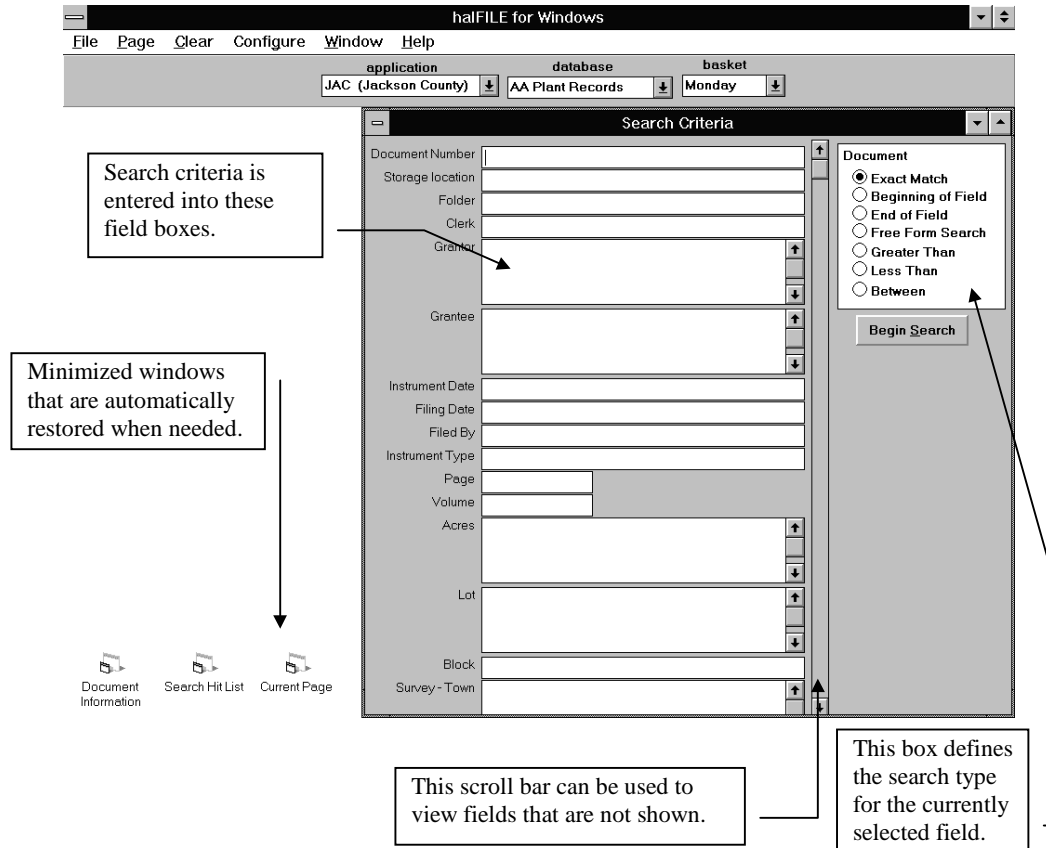
If the Novice parameter in HALFILE.INI is set to NO, the Standard Search procedure described below is enabled.

Searching for documents that have been indexed

1. Select **Workflow-Search** (ALT-W-E) from the main menu or click on the search icon from the main tool bar.
2. Six windows are established as follows:
 - a. The Search Criteria Window is the area into which search criteria is entered.
 - b. The Search Hit List Window is a grid containing a row for each record found by the search and a column for each field in the record.
 - c. The View 1 Window shows the first image page of a selected document.
 - d. The View 2 Window shows the next page.
 - e. The Document Information Window shows the indexed information of the document being viewed. This window also allows updating of the database fields for the document being viewed.
 - f. The Workspace Window used to cut, copy and paste data to and from.
3. Enter the search criteria into the Criteria Window by clicking on a field and entering the data to search for. Check the appropriate search type button in the upper right corner of the window which provides options for exact match, beginning of field, end of field, free form search, greater than, less than and range. As many fields as necessary can be entered for a search.
4. Press the **Begin Search** button.

5. The search is then processed and a box appears showing the number of hits found. Answer **Yes** to load the hits into the Hit List grid. Answer **No** to stop the search and re-enter criteria.
6. The Search Hit List grid is loaded and displayed. **Double click** on a row to load the View 1 and View 2 Windows with the first and second image pages for the document, respectively. The Document Information Window is also loaded with the data for the selected record. The View 1 Window and the Document Information Window are placed, side by side, on the screen.

When the search feature is loaded, a screen similar to the following is displayed:



The search criteria screen is activated for entering the criteria for the search. The other search windows appear as minimized icons in the lower left portion of the screen.

Searching for more than one multi-entry field item

Multi-entry fields are those fields for which more than one line of data can be entered. If you wish to search for a single entry in a multi-entry field, simply enter the data to search for in the field box. If you want to search for multiple entries for one multi-entry field:

1. Click on the multi-entry box to position the cursor.
2. Enter the first line to search for and press the enter key.

3. Enter the second line to search for.

The search mechanism performs a search looking for records that contain either the first line that was entered or the second line and containing any other criteria entered. For instance, you could search for documents filed in 12/94 for persons named 'Smith' or 'Jones' where the name was defined as a multi-entry field.

Searching for a range of values

The **Range** search type is provided to search for a range of values and is entered as follows:

1. Click the mouse inside the criteria field for which a range search is desired. (i.e. date field)
2. Click the range button in the search type box.
3. Enter the first criteria field (the low value).
4. Press the **space bar** on the keyboard. This will automatically put the word <thru> into the criteria field.
5. Enter the second criteria field (the high value).

The search is processed and records with a value within the given range, inclusively (the low and high values included), will be included in the hit list.

Printing the search criteria

After performing a search, select **File-Print Criteria** to print the criteria for your records.

Closing the search module

Select **File-Close** from the menu.

Performing a second search

After a search is performed and the results are in the hit list you can:

1. Select **Clear-Criteria** from the menu to clear all the criteria from the criteria screen. This leaves the hit list intact and any subsequent searches are appended to the list.
2. Select **Clear-Hit List** to clear all records from the hit list window. This leaves the criteria from the previous search loaded so you can make minor criteria adjustments and search again.
3. Select **Clear-New Search** from the menu to clear both the hit list and the criteria for a new search.
4. Select **Window-Search Criteria** to activate the criteria window so another search can be performed.

Designing a report

1. Perform a search of the document database for which the report is to be generated.
2. From the search hit list, click the **report** button found below the hit list grid. This load the reports window.
3. Press the **Insert Report** Button. Then you will be asked "Does this report print out a card format?" If you will be printing to index cards, answer yes. For reports on standard paper answer no.
4. "New Report 1" will be inserted into the list of reports. Click that entry to highlight it, then click the edit button.

5. The Edit Report window is displayed. Enter the path and filename where you will store the report. For instance if you were creating a report of clients, you could call the report "client.rpt". To save the report to the halFILE directory on drive H:, you would enter "H:\HALFILE\CLIENT.RPT" into the path and filename box. The **Select** button is provided to help you existing select reports or the path for a new report.
6. Change the description box from "New Report 1" to something that better describes the report.
7. Specify the sort order by highlighting a field from the field box, then pressing the **Add** button to add that field to the sort order box. As many fields as necessary can be placed into the sort order box.
8. Press the **Design** button. This will load Crystal Reports. If Crystal Reports fails to load, verify its location by selecting **File-Report** from halFILE for Windows' main menu.
9. From the Crystal Reports menu, select **File-New** to create a new report. This will take you through the steps of designing your new report. Refer to the Crystal Report manual or its help file for more information.
10. When you are asked to choose a database filename, select "SCHPR000.MDB", where '000' is your station id. If you are printing a card format, select "SCHCR000.MDB" instead. These files are located in the same directory as your document database.
11. Design your report. When you are finished, select **File-Save As** and enter the same path and filename as you entered in step 5 above.
12. Select **File-Exit** to return to halFILE For Windows.
13. Click the **Done** button to save the report setup information.

Printing a report

1. Perform a search.
2. From the hit list click the report button.
3. Click on the report that you wish to print from the reports listed.
4. The print window is displayed where the printer can be selected as well as the range of pages to print. Click OK when all the selections are correct.
5. The report is generated and displayed in a window. Click the printer icon at the bottom of the screen to route the report to the selected printer.
6. Press the close button to close the report window.

Avoiding slow searches

Each field in the document database is indexed. However, a field that is indexed is indexed from the left only. Therefore, keep in mind the following:

1. Avoid 'free form' and 'end of field' searches unless associated with other criteria that use a different search method. Free-form and End of Field searches are unable to use the index and must read the entire database to find matches.
2. Enter as much search criteria as possible.
3. If possible, avoid searches that find hundreds of hits. When the hit list is loaded, the data for a search must be written to a disk file. The more records that must be loaded, the longer it takes for the entire grid to be loaded.

Note: Even though an hour glass mouse pointer is displayed when the hit list grid is being loaded, you can actually perform some actions against the grid including viewing a document. The hour glass will change back to a pointer when the entire grid is loaded.

Criteria Field Types

As you fill in the criteria fields, check the search type button box in the upper right hand corner of the criteria window to ensure that the desired search type is being performed. Search types include:

Exact Match - the field data in the database must exactly match the criteria.

Beginning of Field - the field data in the database must begin with the criteria entered.

End of Field - the field data in the database must end with the criteria entered.

Free Form Search - the field data in the database must contain the criteria entered.

*A **Free Form Search** may be very slow. This is because the search engine must examine every database record to determine if the selected field contains the criteria anywhere in the field. Therefore, this type of search should be avoided if it is the only criteria field being entered. If, however, other non-free form criteria is entered, the search speed should be reasonable.*

Greater Than - the field data in the database must be greater than the criteria entered.

Less Than - the field data in the database must be less than the criteria entered.

Range - the field data in the database must be within the range of the two criteria values entered.

Search criteria results examples

The following chart shows some examples of how the search engine works. The Criteria Entered column represents the criteria you might enter into a criteria field. The Database Field columns contains data that could be in your database. The exact, beginning, end, free form, greater and less columns show whether or not the record would be found given the criteria that was entered.

<u>Criteria Entered</u>	<u>Database Field</u>	<u>Exact</u>	<u>Beginning</u>	<u>End</u>	<u>Free Form</u>	<u>Greater</u>	<u>Less</u>	<u>Range</u>
Smith, J	Smith, John	no	yes	no	yes	yes	no	n/a
Smith, John	Smith, John	yes	yes	yes	yes	no	no	n/a
John	Smith, John	no	no	yes	yes	yes	no	n/a
400	450	no	no	no	no	yes	no	n/a
100 <thru> 200	201	n/a	n/a	n/a	n/a	n/a	n/a	no
100 <thru> 200	100	n/a	n/a	n/a	n/a	n/a	n/a	yes

The Hit List Window

Once a search is performed, a hit list window similar to the sample below is displayed showing the results of the search. This grid includes a row for each record found in the search and a column for each field in the database. If a field is a multi-entry field, only the first entry in the database is displayed.

Clicking the right mouse button in a column will display a menu which allows you to sort the grid by the column in which you are currently located. You may press ESC or click elsewhere on the screen to hide the menu without making any selection. Once you select

the sort option you will be given a choice between ascending (A to Z) and descending (Z to A). Once you pick the type of sort the grid will be reloaded with the same data sorted by the column you were in when you selected the sort menu.

The hit list grid showing the results of a search.
Double click on any row to view the document.

haFILE for Windows

File Edit Page Clear Configure Window Help

application database basket

JAC (Jackson County) LR Land Records Monday

Document	Cartridge	Folder	Clerk	Grantor	Grantee	Instrument
00000070	OR_1A	00000OR1	48	GREEN KENNETH	GREEN SANDRA R	1/6/93
00000071	OR_1A	00000OR1	49	GREEN SANDRA R	GREEN KENNETH	1/6/93
00001142	OR_1A	00000OR5	1101	GREENHILL PETROLEUM	JANSKY LILLIAN ET AL	3/3/93
00001577	OR_1A	00000OR7	1499	GREEN HOWARD ET UX	YUMA PETROLEUM	1/28/93
00001800	OR_1A	00000OR8	1720	GREEN VICENA KNOPP	MOOSE OIL & GAS	3/25/93
00001995	OR_1A	00000OR9	1911	GREEN GARY	FIRST NATIONAL BANK	5/12/93
00003126	CD_JAC2	00000R15	3030	GREEN VERNON L ET UX	HUMPHREY STEVEN W	8/12/93
00003223	CD_JAC2	00000R15	3126	GREEN BRICE	WALTER JIM HOMES INC	6/24/93
00003255	CD_JAC2	00000R15	3158	GREEN ADELINE HOPES	LAKE CARROL W	6/7/93
00003335	CD_JAC2	00000R16	3236	GREEN BETTY A	FORMOSA PLASTICS	8/17/93
00003934	CD_JAC2	00000R18	3827	GREENAWALT JAMES D	FIRST HEIGHTS BANK	10/8/93
00004615	CD_JAC2	00000R22	4504	GREEN BRICE	JIM WALTER HOMES INC	10/1/93
00004756	CD_JAC2	00000R22	4643	GREEN VIENA	VAVRECKA GRACE	12/14/93
00005040	CD_JAC2	00000R24	4924	GREENWOOD HOLDINGS	PACKAGING RESEARCH	12/13/93

Mark View Remove Show Marked List Report

Click a row and then click this mark button to mark a row, moving the record into the second list.

Click here to load a window where existing reports can be printed and new reports can be created.

Viewing the images for a database record

1. Use the scroll bar to the right of the grid to move forward and backward through the hit list. The scroll bars below the grid can be used to move right or left through the database fields.
2. Double click on a row in the list or click on a row, then click the **View button** to load the Database Information Window showing the database record and the View 1 and View 2 Windows with the first two images for the document.

Formatting the hit list grid

1. Position the mouse pointer on the grid divider lines in the header row and drag the mouse left or right to increase or decrease the width of a column.
2. Once you have the grid column widths set to your liking, select **File-Save Grid Format** to permanently save column widths.

Marking entries in the hit list grid

>> The marking feature lets you mark entries in the hit list and then re-load the hit list saving only marked entries or unmarked entries. To use this feature:

1. Click the row to mark and then click the **Mark button**. This places a check mark icon to the left of the row.
2. Click the **Show Second List** button at the bottom of the screen to show items that have been marked.
3. You can remove entries from the second list by selecting a row and pressing the **Remove button**.
4. When you have marked all the desired records, press **List Options** button which appears when a record is placed into the second list. This shows a menu to either save records in the top list, save records in the bottom or remove records in the bottom list from the top list. The hit list is then re-loaded.

Saving and Restoring the Hit List

The search list can be saved to a file and restored during a later session by:

1. From the search hit list window, select **File-Save Hit List**.
2. Enter the file name to save the list to, using an '.HIT' extension.

Later, a saved search hit list can be restored by:

1. Within Search, select **File-Restore Hit List**.
2. Select the file name that was saved earlier.

Once this is done, you can use the search hit list as if you had just performed the search.

The Right Click Menu on the Search Hit List

By pressing the right mouse button with the arrow in a column on the search hit list, a menu is activated containing some other special features including:

Sort - this selection will sort the search hit list by the selected column in either ascending or descending order. Note that you cannot sort on a multi-entry field or fields from an externally attached table.

List options - this activates the options menu for handling marked rows on the hit list (just like the List Option button beneath the hit list).

Col Width - this can be used to enter a column width value (in twips) for the selected column. You can also set column widths by dragging the column divider line in the header row of the hit list.

View - this selection loads the Current Page and Document windows with image and data from the selected row (just like double-clicking a row or pressing the View button beneath the hit list).

Toggle Mark - this toggles the mark on the clicked row (just like pressing the Mark button beneath the hit list).

The Document Information Window

Once the Document Information Window is loaded the screen will be similar to the sample below.

Fields that cannot be altered such as document number, storage location and folder appear in a lighter shade. These fields are used to locate the image relating to the document. Date fields are formatted using the long date format set up in the Windows Control Panel (International). Multi-entry fields are placed in larger text boxes with scroll bars on the right if all the entries will not fit in the box. Like Index, a question mark icon will appear if a field is validated in a table. If all the fields cannot be listed in the screen space available, a scroll bar will appear on the far right of the form.

Changing the database information

1. Perform a search and select a record from the hit list to load the Document Information Window.
2. Click in the desired field and make changes. Date fields can be keyed in the standard mm/dd/yy format.
3. To save the changes, press CTRL-S.

Note: If security is enabled, users that do not have Index privileges will not be able to change the database information.

Document 00005040	
Document Number	00005040
Storage location	CD_JAC2 hal Systems Demo
Folder	00000R24 No Description
Clerk	4924
Grantor	GREENWOOD HOLDINGS INC
Grantee	PACKAGING RESEARCH CORPORATION
Instrument Date	Dec 13, 1993
Filing Date	Jan 10, 1994
Filed By	HEADING OIL COMPANY
Instrument Type	CERT CERTIFICATE
Page	43
Volume	24
Acres	
Lot	

This is a multi-entry box. Notice the scroll bar to the right.

This scroll bar is used to view more database fields.

Managing Search Windows

There are several windows that comprise the Search Module. By managing these windows, you are able to view the data and related images in many different ways. halFILE for Windows™ defaults to certain window sizes and formats and loads and hides the different windows automatically whenever they are needed. However, by using the **Window** menu selection, you can view any window at any time. The following explains the different selections that can be found on the Window menu.

Window-Cascade

This menu selection aligns all active windows so they are cascaded one behind the other on your desktop.

Window-Tile

This selection sizes all active windows so they all appear on your desktop at one time.

Window-SQL

This selection shows how the search criteria was interpreted into SQL (Structured Query Language) commands. If you are familiar with SQL, you can modify the SQL statement that was generated by the criteria and perform a search.

Window-Document View

Select this menu item to display the current image page on the left side of the screen and the data for the current image on the right side of the screen.

Window-Browse View

This selection displays the current image on the left side of the screen, the data for the current image is displayed in the middle of the screen and the search hit list on the right of the screen. This can be useful for browsing through the different documents that were found in a search.

Window-Two Page View

This menu selection displays two pages of the document side by side on your desktop. As you browse through the pages of the document, the current page is displayed on the left and the next page is on the right.

Window-Search Criteria

This selection activates the Search Criteria Window to change the criteria and perform another search. If a search hit list is already active, you will be asked if you wish to:

Search primary and add to hit list - this option searches your document database and adds any new records found that match the criteria to the existing records in your hit list.

Search hit list and retain matches - this is a subsearch of the records found in your hit list. Any records that found match the criteria are kept in the hit list while those records that do not match the criteria are discarded.

Search hit list and delete matches - this also performs a subsearch of the records in the search hit list. Any records found meeting the criteria are removed from the hit list.

Clear hit list and begin new search - this selection clears any existing records from the search hit list and begins a new search of your document database using the criteria.

Window-Document Information

This selection activates the Document Information window containing the data for the currently selected record from the Search Hit List.

Window-Search Hit List

This selection activates the Search Hit List Window containing records found for a search.

Window-Current Page

The Current Page Window displays an image for the current document.

Window-Next Page

This window displays the next page of a document. The same pan and zoom modes are available here as with the Current Page Window.

Window-Workspace

This window lets you to cut and paste information to/from database fields or type any other information or notes to yourself as you are updating. It is also an area where text that has been obtained by using an OCR application can be pasted and then used to fill in the appropriate database fields. The **Paste Into Workspace** option may be enabled from the **Edit** menu to cause any subsequent paste operations to be placed into this workspace. If this option is enabled a check mark will appear next to the menu. You can then paste text from database fields without moving to the Workspace. **When you exit Search, any data in the Workspace is discarded!**

If the Paste Into Workspace option is turned on it is not possible to paste information into a database field. Any paste operation pastes into the Workspace even if it is not currently visible on the screen. Turn this selection off for paste to function normally.

Customizing the image viewing parameters

Select Configure-View 1 (current page) or Configure-View 2 (next page) to load a dialog box with image viewing options where custom image handling can be configured.

Zooming in on the image

1. Position the mouse arrow over the area of the image you wish to zoom in on.
2. Press and hold the left mouse button.
3. Drag the mouse to form a square over the area to zoom in on.
4. Release the mouse button.
5. To return the image to full page, double click on the image.

Rotating the image

Click one of the page rotation icons in the tool bar above the Current Page Window.

Printing an Image

1. Click the printer icon in the tool bar above the image or select File-Print Current Image from the menu.
2. The Print Window is displayed showing a page range that encompasses all the images for the document. Select the desired page range and press the OK button

Note: The printer that is used for image printing is always the default printer at the time halFILE for Windows™ was loaded. Changing the printer has no effect at this time. If a different printer is required, you must exit halFILE, select the printer and then re-enter halFILE.

Using image panning

1. Display the image.
2. Select **Configure-Pan** from the menu.
3. Click and hold down the mouse pointer within the View 1 Window. This changes the pointer to a small hand.
4. Drag the mouse pointer around to pan around the image.

To return to zoom method, select **Configure-Zoom** from the menu.

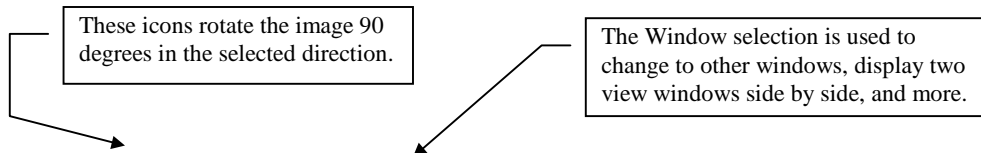
Using right click image rotation

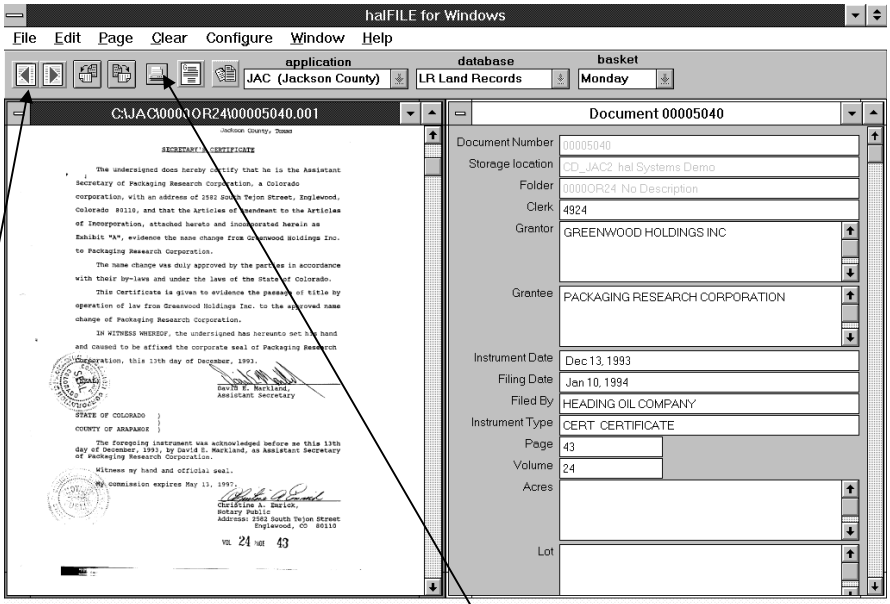
1. Display the image.
2. Select **Configure-Rotate** from the menu.
3. Press the right button on the image to rotates the image 90 degrees at any time.
4. Double click in the view window returns the image to its original state.

To return to zoom method, select **Configure-Zoom** from the menu.

Using the Page Flip feature

The Page-Flip selection (hot key CTRL-F) can be used to browse through the pages of a long document in order to locate a particular page. When you choose this selection, the pages in the image begin to flip. To stop the flipping, double click on the image window.





Search Hit List WorkSpace Search C:\JAC\0000\OR24\00005040.002

The next page and prior page of a document is shown by pressing these icons.

The image can be printed by clicking this icon or selecting File-Print.

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TOOLS

Refresh

As data is modified, the database becomes fragmented, using more disk space than necessary. The Tools-Refresh selection compacts either the currently selected database or the currently selected basket, recovering lost space and organizing it contiguously on disk.

When using the multi-user version of halFILE for Windows™, everyone on the network should exit the program before performing these operations. They should not access halFILE until the operation is complete. These operations also could take up a considerable amount of time especially if performed on large databases.

Tools-Refresh-Basket compacts the currently selected in-basket. The amount of time this takes depends on the number of documents in the basket.

Tools-Refresh-Database compact the currently selected document database. This could take a considerable amount of time depending on the number of records in the database.

Repair

A document database can become corrupted due to an incomplete write operation, perhaps caused by a power outage or computer hardware problems. The **Tools-Repair** selection validates all system tables and indexes for the currently selected document database.

When using the multi-user version of halFILE for Windows™, everyone on the network should exit the program before performing these operations. They should not access halFILE until the operation is complete. These operations also could take up a considerable amount of time especially if performed on large databases.

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SECURITY

halFILE for Windows™ provides multi-level security that includes:

- Restricting users from accessing selected image databases
- Restricting users to certain actions such as scan, index, archive, search
- Password control
- System Administrator identification

Security Set Up

To set up security, select **Configure-Security** and click the **Enable Security** sub-menu. This places a check mark on the sub-menu and tells the system that system security is enabled. If you click this sub-menu when it is checked, the security system is disabled and the check mark is removed.

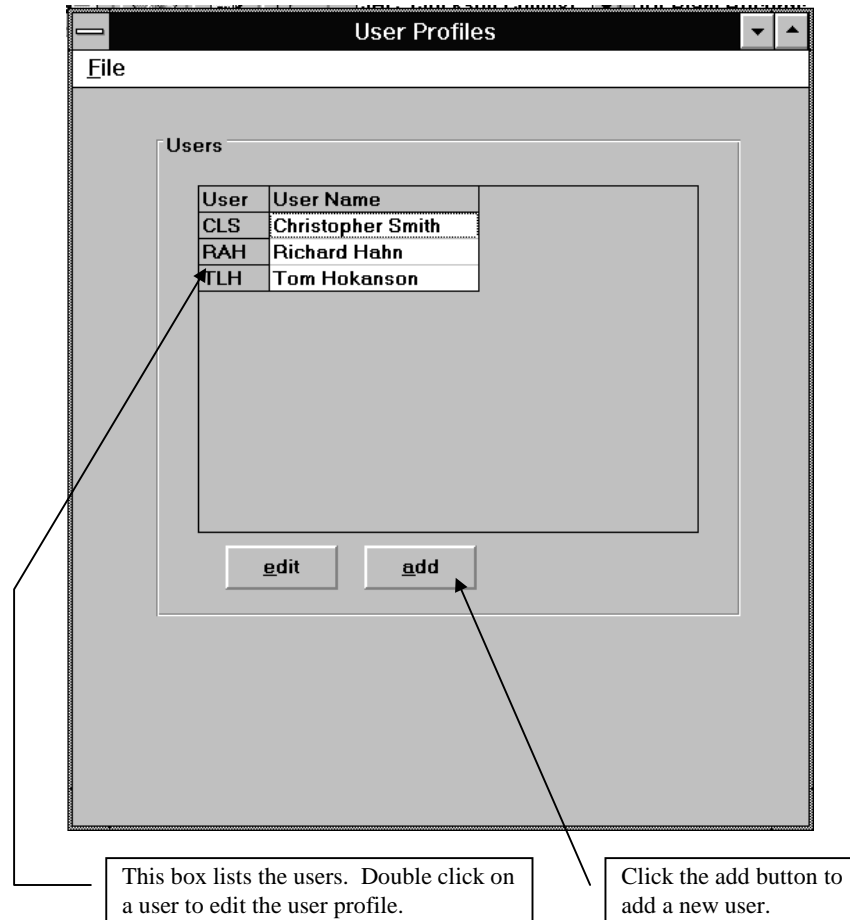
Immediately after enabling security, you must define at least one user with System Administrator privileges. This will prevent you from being locked out of the system.

Security is based around users. When security is enabled, a user must provide a user id and a password to gain access to the system. Once he gets into the system, the databases that can be accessed and the features that can be performed depend on his user profile.

At least one user must be set up as a 'System Administrator'. The System Administrator is the only person who can turn security on/off and define user profiles. When passwords are entered, the data is replaced with asterisks on the screen to prevent others from viewing a user's personal password. This is also true when the System Administrator defines user passwords. Therefore, if a user forgets his/her password and the System Administrator does not have a record of the password, the System Administrator would have to remove the user from the system, then re-add the user to set up a new password.

If you are locked out of the system because you do not know a password, call Technical Support.

To set up users and designate restrictions and privileges, select **Configure-Security-Users**. This displays a screen similar to the following.



Adding a new user

1. Click the **add** button to display the user profile screen.
2. The left box shows all the databases that have been defined, consisting of an application id plus the document type. The frame at the bottom of the screen shows the global privileges the user is allowed to perform (scan, index, search, set up, archive, system administrator, all databases).
3. Click on the **privilege** buttons that you wish the user to perform. If you click the **all databases** button, the you do not need to select databases for the user. The user is automatically given rights to perform the selected global privileges for all databases.
4. If the **all databases** button is not selected, you must add the databases the user can access into the right-hand box. To do this, double-click a database in the left-hand box or click a database in the left-hand box and press the **Add** button. This adds the database to the user's list and gives the user the default, global privileges for that database.
5. To set particular privileges for a database, double click the database in the right-hand (user's) box. This displays a form for specify user privileges for that database. In this way, you can give a user rights to index and search in one database, while allowing only search privileges in another.

Editing an existing user set up

1. Double click the user id, or highlight the user and press the **edit** button.
2. Set up the user's profile as describes under 'Adding a new user', above.

To remove a user, highlight the user and select **File-Delete**.

To close the user screen, select **File-Close**.

The following screen shows a user profile. This user has no database restrictions since the **All Databases** button in the User Privileges frame is turned on.

The screenshot shows a window titled "User Profiles" with a "File" menu. The main area contains the following elements:

- User Id:** TLH
- User Name:** Tom Hokanson
- Databases Available:** A list of databases including CLS-AA Auto Folder Test, CLS-CC County Test, DBC-AA Test, HDP-AA Test, HDS-AA Test, JAC-AA Plant Records, JAC-SC Security Test, JAC-TT Test, LOC-AA Test, LOC-BB Test, and TWB-WL Wells.
- Databases user can access:** An empty list box.
- Control Buttons:** add>>, <<remove, add all, and clear.
- User Privileges:** A list of checkboxes for Scan, Index, Set Up, System Administrator, Search, Archive, and All Databases. The "All Databases" checkbox is checked.
- Action Buttons:** change password, save, and discard.

The different functions this user is able to perform are defined here.

Click here to change a user's password.

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Building a Sample Application

The halFILE for Windows™ Viewer installation diskettes include database template files for several different applications that can be used to help you build your application. The sample applications provided include the following:

TITLE01.SPC - sample Title Plant database format #1 template.
TITLE01.RPT - sample Title Plant Report for Format #1.
TITLE02.SPC - sample Title Bankruptcy database format #2 template.
TITLE03.SPC - sample Title Divorce database format #3 template.
TITLE04.SPC - sample Title Real Estate Closings database format #4 template.
TITLE05.SPC - sample Title Probates database format #5 template.
TITLE06.SPC - sample Title Financial Statements database format #6 template.
TITLE07.SPC - sample Title Tax Suits database format #7 template.
RESUME.SPC - sample Resume/Personnel file database template.
RESUME.RPT - sample Resume database report.
SIG.SPC - sample Signature Verification database template.
SIG.RPT - sample Signature Verification database report.
FDS01.SPC - sample template that links to First Data Systems Closing Package using externally attached tables. For more information about this package used by Title Companies, call hal Systems.
FDS.RPT - sample First Data Closing database report.

To use a sample databases with a new application, perform the following steps:

1. Select **File-Applications** from the main menu and set up a new application. Select the desired folder option (we suggest 'limit number of images per folder and auto assign the folder id' with the number of images per folder set to 1000).
2. Select **File-Database** and click the **New** button. Select File-Restore Template and select on of the above templates found in the main halFILE directory. You can make any modifications necessary and then select File-Build New Database to create an image database.
3. Select **File-Baskets** and click the New button to add a new basket for holding images as they are scanned.
4. If the database template you selected above includes any table fields, you must create the tables using **File-Table**. From the Table menu, select **File-Add Predefined Tables** to add tables that may already be delivered with the installation diskettes (such as the Title Plant Application Instrument Types table). Any tables that are not included can be created using the **Create Table** button on the Table form.
5. Scan and index a test page to place a record in your database.
6. Perform a search for the document that was scanned and indexed. From the Search Hit List, select the **Report** button and add a new report. Select the appropriate .RPT file using the select button on the form. This should make the report file available to you so you can print a report of the hit list.
7. To complete the application set up, set up cartridges and drives to archive to using the **Configure** menu selection from halFILE's main menu.

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